

## THE JOURNAL

or

## HELLENIC STUDIES



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## THE JOURNAL

## HELLENIC STUDIES

VOLUME XXVI. (1906

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## R U L E S

OF THE

## Societn for the wromotion of fiflemir Studics.

1. The objects of this Society shall be as follows:-
I. To advance the study of Greck language, literature, and art, and to illustrate the history of the Greek race in the ancient, Byzantine, and Neo-Hellenic periods, by the publication of memoirs and unedited documents or monuments in a Journal to be issued periodically.
II. To collect drawings, facsimiles, transcripts, plans, and photographs of Greek inscriptions, MSS., works of art, ancient sites and remains, and with this view to invite travellers to communicate to the Society notes or sketches of archæological and topographical interest.
III. To organise means by which members of the Society may have increased facilities for visiting ancient sites and pursuing archæological researches in countries which, at any time, have been the sites of Hellenic civilization.
2. The Society shall consist of a President, Vice-Presidents, a Council a Treasurer, one or more Secretaries, and Ordinary Members. All officers of the Society shall be chosen from among its Members, and shall be ex officio members of the Council.
3. The President shall preside at all General, Ordinary, or Special Meetings of the Society, and of the Council or of any Committee at which he is present. In case of the absence of the President, one of the Vice-Presidents shall preside in his stead, and in the absence of the Vice-Presidents the Treasurer. In the absence of the Treasurer the Council or Committee shall appoint one of their Members to preside.
4. The funds and other property of the Society shall be adminis.tered and applied by the Council in such manner as they shall consider most conducive to the objects of the Society: in the Council shall also be vested the control of all publications issued by the Society, and the general management of all its affairs and concerns. The number of the Council shall not exceed fifty.
5. The Treasurer shall receive, on account of the Society, all subscriptions, donations, or other moneys accruing to the funds thereof, and shall make all payments ordered by the Council. All cheques shall be signed by the Treasurer and countersigned by the Secretary.
6. In the absence of the Treasurer the Council may direct that cheques may be signed by two members of Council and countersigned by the Secretary.
7. The Council shall meet as often as they may deem necessary for the despatch of business.
8. Due notice of every such Meeting shall be sent to each Member of the Council, by a summons signed by the Secretary.
9. Three Members of the Council, provided not more than one of the three present be a permanent officer of the Society, shall be a quorum.
10. All questions before the Council shall be determined by a majority of votes. The Chairman to have a casting vote.
II. The Council shall prepare an Annual Report, to be submitted to the Annual Mecting of the Society.
11. The Sccretary shall give notice in writing to each Member of the Council of the ordinary days of meeting of the Council, and shall have authority to summon a Special and Extraordinary Meeting of the Council on a requisition signed by at least four Members of the Council.
12. Two Auditors, not being Members of the Council, shall be clected by the Society in each year.
13. A General Meeting of the Society shall be held in London in Junc of each year, when the Reports of the Council and of the Auditors shall be read, the Council, Officers, and Auditors for the ensuing year elected, and any other business recommended by the Council discussed and determined. Meetings of the Society for the reading of papers may be held at such times as the Council may fix, due notice being given to Members.
14. The President, Vice-Presidents, Treasurer, Secretaries, and Council shall be elected by the Members of the Society at the Annual Meeting.
15. The President shall be elected by the Members of the Society at the Annual Mecting for a period of five years, and shall not be immediately eligible for re-election.
16. The Vice-Presidents shall be elected by the Members of the Society at the Annual Mecting for a period of one year, after which they shall be eligible for re-election.
17. Onc-third of the Council shall retire every year, but the Members so retiring shall be eligible for re-election at the Annual Meeting.
18. The Treasurer and Secretaries shall hold their offices during the pleasure of the Council.
19. The elections of the Officers, Council, and Auditors, at the Annual Mecting, shall be by a majority of the votes of those present. The Chairman of the Meeting shall have a casting vote. The mode in which the vote shall be taken shall be determined by the President and Council.
20. Every Member of the Society shall be summoned to the Annual Meeting by notice issued at least one month before it is held.
21. All motions made at the Annual Mceting shall be in writing and shall be signed by the mover and seconder. No motion shall be submitted, unless notice of it has been given to the Secretary at least three weeks before the Annual Meeting.
22. Upon any vacancy in the Presidency occurring between the Annual Elections, one of the Vice-Presidents shall be elected by the Council to officiate as President until the next Annual Meeting.
23. All vacancies among the other Officers of the Society occurring between the same dates shall in like manner be provisionally filled up by the Council until the next Annual Meeting.
24. The names of all candidates wishing to become Members of the Society shall be submitted to a Meeting of the Council, and at their next Meeting the Council shall proceed to the election of candidates so proposed : no such election to be valid unless the candidate receives the votes of the majority of those present.
25. The Annual Subscription of Members shall be one guinea, payable and due on the ist of January each year ; this annual subscription may be compounded for by a single payment of $£ 1515$ s., entitling compounders to be Members of the Society for life, without further payment. All Members elected on or after January 1, 1905, shall pay on election an entrance fee of two guineas.
26. The payment of the Annual Subscription, or of the Life Composition, entitles each Member to receive a copy of the ordinary publications of the Society.
27. When any Member of the Society shall be six months in arrear of his Annual Subscription, the Sccretary or Treasurer shall remind him of the arrears due, and in case of non-payment thereof within six months after date of such notice, such defaulting Member shall cease to be a Member of the Society, unless the Council make an order to the contrary.
28. Members intending to leave the Socicty must send a formai notice of resignation to the Secretary on or before January 1 ; otherwise they will be held liable for the subscription for the current year.
29. If at any time there may appear cause for the expulsion of a Member of the Socicty, a Special Meeting of the Council shall be held to consider the case, and if at such Mecting at least two-thirds of the Members present shall concur in a resolution for the expulsion of such Member of the Society, the President shall submit the same for confirmation at a General Mecting of the Society specially summoned for this purpose, and if the decision of the Council be confirmed by a majority at the General Mceting, notice shall be given to that effect to the Member in question, who shall thercupon cease to be a Member of the Society.
30. The Council shall have power to nominate British or Foreign Honorary Members. The number of British Honorary Members shall not exceed ten.
31. The Council may, at their discretion, elect for a period not exceeding five years Student-Associates, who shall be admitted to certain privileges of the Society.
32. The names of Candidates wishing to become Student-Associates shall be submitted to the Council in the manner prescribed for the Election of Members. Every Candidate shall also satisfy the Council by means of a certificate from his teacher, who must be a person occupying a recognised position in an educational body and be a Member of the Society, that he is a bona fide Student in subjects germane to the purposes of the Socicty.
33. The Annual Subscription of a Student-Associate shall be one guinca, payable and due on the ist of January in each year. In case of non-payment the procedure prescribed for the case of a defaulting Ordinary Member shall be followed.
34. Student-Associates shall receive the Society's ordinary publications, and shall be entitled to attend the General and Ordinary Meetings, and to read in the Library. They shall not be entitled to borrow books from the Library, or to make use of the Loan Collection of Lantern Slides, or to vote at the Society's Mcetings.
35. A Student-Associate may at any time pay the Member's entrance fee of two guincas, and shall forthwith become an Ordinary Member.
36. Ladies shall be eligible as Ordinary Mcmbers or StudentAssociates of the Society, and when elected shall be entitled to the same privileges as other Ordinary Members or Student-Associates.
37. No change shall be made in the Rules of the Society unless at least a fortnight before the Annual Mecting specific notice be given to every Member of the Socicty of the changes proposed.

# RULES FOR THE USE OF THE LIBRARY 

AT 22, ALBEMARLE STREET.

I. That the Library be administered by the Library Committec, which shall be composed of not less than four members, two of whom shall form a quorum.
II. That the custody and arrangement of the Library be in the hands of the Hon. Librarian and Librarian, subject to the control of the Committee, and in accordance with Regulations drawn up by the said Commitice and approved by the Council.
III. That all books, periodicals, plans, photographs, \&c., be received by the Hon. Librarian, Librarian or Secretary and reported to the Council at their next meeting.
IV. That every book or periodical sent to the Society be at once stamped with the Society's name.
V. That all the Society's books be entered in a Catalogue to be kept by the Librarian, and that in this Catalogue such books, \&c., as are not to be lent out be specified.
VI. That, except on Christmas Day, Good Friday, and on Bank Holidays, the Library be accessible to Members on all week days from eleven A.M. to six P.M. (Saturdays, II A.M.. to 2 P.M.), when either the Librarian, or in his absence some responsible person, shall be in attendance. Until further notice, however, the Library shall be closed for the vacation from July 20 to August 31 (inclusive).
VII. That the Society's books (with exceptions hereinafter to be specified) be lent to Members under the following conditions :-
(i) That the number of volumes lent at any one time to each Member shall not exceed three.
(2) That the time during which such book or books may be kept shall not exceed one month.
(3) That no books be sent beyond the limits of the United Kingdom.
VIII. That the manner in which books are lent shall be as follows:-
(i) That all requests for the loan of books be addressed to the Librarian.
(2) That the Librarian shall record all such requests, and lend out the books in the order of application.
(3) That in each case the name of the book and of the borrower be inscribed, with the date, in a special register to be kept by the Librarian.
(4) Should a book not be returned within the period specified, the Librarian may reclaim it.
(5) All expenses of carriage to and fro shall be borne by the borrower.
(6) All books are due for return to the Library before the summer vacation.
IX. That no book falling under the following categories be lent out under any circumstances :-
(I) Unbound books.
(2) Detached plates, plans, photographs, and the like.
(3) Books considered too valuable for transmission.
(4) New books within one month of their coming into the Library.
X. That new books may be borrowed for onc week only, if they have been more than one month and less than three months in the Library.
XI. That in the case of a book being kept beyond the stated time the borrower be liable to a fine of one shilling for each week after application has been made by the Librarian for its return, and if a book is lost the borrower be bound to replace it.

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## SESSION 1905-6.

The First General Meeting of the Society was held on November 7 th, when Mr. S. H. Butcher took the chair. Professor E. A. Gardner read a paper on the Tegean pediments with particular reference to the figure of Atalanta, which appears in this volume.

Mr. G. F. Hill read a note on a bronze coin of Asine, in Messenia, representing the head of Apollo and the figure of his son Dryops, the eponymous hero of the Dryopians. The Asinaeans were particularly proud of their Dryopian descent ; besides their temple of Apollo, they had, Pausanias tells us, a shrine and an ancient agalma of Dryops. On the coin the hero is represented enthroned, holding a kantharos; the type is obviously copied from an archaic relief similar to the 'ancestor-reliefs,' which are almost entirely of Laconian origin. The existence, proved by this coin, of a Laconian style of relief on this Messenian site is interesting in view of the historical relations between Asine and Sparta. The Asinaeans, while still inhabiting Asine, in Argolis, had given assistance to Sparta against Argos; expelled from their home by the Argives, they received the Messenian site from the Spartans. The paper was discussed by Professor P. Gardner, Mr. A. H. Smith, and Professor E. Gardner.

The Second General Meeting of the Society was originally fixed for December 12th, but was adjourned on that occasion as a mark of respect to the late President, Sir Richard Jebb, whose death had occurred a few days before. The meeting was ultimately held on January 16th, when the chair was taken by Professor Percy Gardner, the newly elected President of the Society, who delivered an address to the memory of his predecessor, Sir Richard Jebb. Professor W. C. F. Anderson then read a paper on Greek and Roman ships with multiple banks of oars. The problem of the arrangement of oars in the Greek warship is old, and was first discussed in the sixteenth century. Practical seamen held that the warships of the ancients were similar to those of their own day-a view which was never accepted by scholars. For the last two centuries it has been generally agreed that Scaliger and Palmerius had proved that the banks or benches were superposed, giving horizontal rows of oars. There has, however, been much difference of opinion as to the way in which this was done. Mr. Tarn's attempt to revive Bayfield's theory that the thranite, zugite, and thalamite were squads rowing in the stern, in the middle, and the bows is not justified
by the passages he quotes, and can only succeed if we admit that äv $\omega$ means ' aft,' and ка́тн, ' forward.' Similarly his explanation of סiккоотоs and трiкротоs as referring to these squads is not borne out by their use in classical authors. The literary evidence, both Greek and Latin, cannot be reconciled with the theory that the oars were all on the same level. The monumental evidence is also equally clear, although few representations shew more than two banks. The linguistic evidence is also strong, as the terms 'thranite,' \&c., have a natural meaning if the banks are superposed. Further, the Byzantine dromos had two rows of banks, one above the other ; and the Venetian galley, with several oars to one port, was an attempt to secure a lower freeboard without loss of power. The sixteenth century galley, with long sweeps and five to seven men pulling each, was intended to provide a gun platform. It was not a new invention, but merely the conversion of a lighter or barge into a warship, as the additional weight made the use of short oars less effective. The objections to the accepted theory have always been the length of oars in the upper banks; but the use of long oars on vessels with a high freeboard was shown in the tapestry in the old House of Lords, where two Spanish men-of-war were depicted using sweeps from their upper deck. Even in the fifties of last century io-gun brigs, such as Darwin's Beagle, were aided by sweeps when chasing slavers. A parallel to Greek and Roman ships is to be found in Burmese vessels, which are very like them in structure, and represent about the same stage of development. The paper was illustrated, and a photograph of the Cataphract on the Ulubad relief was shown for the first time.

In the discussion which followed Mr. S. H. Butcher, Mr. Cecil Smith, Dr. Edmond Warre, and Mr. A. B. Cook took part. Mr. Cook showed a model (built by Messrs. Siwan, Hunter and Richardson) of part of an ancient trireme in elucidation of his views.

At the Third General Meeting held on February 2oth, Mr. E. Norman Gardiner read a paper on Heracles the Pancratiast, the substance of which appears in this volume.

At the Fourth General Meeting, held on May 8th, Professor Percy Gardner took the chair, when Mr. Cecil Smith, Keeper of the Dcpartment of Greek and Roman Antiquities in the British Museum, gave the first of his promised annual accounts of acquisitions in his department. He had arranged that acquisitions should be on view in a separate case at the Museum for a year before their incorporation in the collections, and this departure was to be supplemented by an annual résumé to be given at a mecting of the Hellenic Society. The main difficulty with which his department, in common with others, had to contend, was the inadequate grant at their disposal for making purchases. Despite the increase in the market price of antiquities, the funds at the disposal of the authoritics were decidedly less than was the case twenty years ago. The present account comprised the more important acquisitions since his appointment in 1903.

Among the more striking objects shown upon the screen were the following : (1) On a polychrome Attic vase was a unique representation of the mystic marriage of Dionysus with the wife of the Archon Basileus. This rite was celcbrated annually in the spring at Athens, at the festival of the Anthesteria, and was doubtless intended partly to symbolise, and partly, by a sort of sympathetic magic, to secure, the fertility of the city for the coming year. (2) The lesser arts of the goldsmith and jeweller were admirably illustrated by two fine intaglios representing a girl dancing an Eros upon her foot, and a female figure seated upon the prow of a triremc. Both these works of art belonged to an earlier period than analogous types previously known. A cloisonné ring showed the façade of the temple of Aphrodite at Paphos, as depicted on coins from that site ; and this section was supplemented by an exquisite specimen of Greek gold granulated toreutic work, rivalling the famous pieces of the Hermitage Museum from the Crimea. (3) Among the terracottas, in addition to choice specimens of the so-called Tanagra and Myrina figurines, special interest was aroused in the complete contents of a maiden's tomb, comprising a seated figure of a girl with detachable arms, nude, but probably intended to be draped with miniature garments; the marriage vase; the $\epsilon \pi i \nu \eta \sigma \tau \rho o \nu$ for carding wool ; and other feminine attributes, all executed on a proportionate scale in terra-cotta. (4) Of bronzes, the most remarkable were several fine examples recently exhibited at the Burlington Fine Arts collection, including the Forman equestrian figure ; an ape represented as a quail-catcher, holding a quail basket such as is used to-day and a lantern ; a Graeco-Egyptian statuette from Spain, one of a series of figurines belonging to that Graeco-Celt-Iberian art of which the finest development is seen in the much-discussed Elche head in the Louvre ; and the magnificent relief from Paramythia from the Hawkins collection, to the purchase of which Mrs. Hawkins had generously contributed, besides presenting works of an analogous character. (5) Architecturally the most conspicuous addition to the collections were the columns from the "Treasury of Atreus" at Mycenae, large portions of which had been recently presented by the Marquis of Sligo. With these, and with the help of casts of the hitherto known fragments in London, Athens, and Karlsruhe, a complete restoration of these remarkable columns and their capitals in their original form has now been crected in the Archaic Room of the Muscum.-In view of the nature of Mr. Cecil Smith's paper no discussion followed, the Society, through the Chairman, expressing its appreciation of the communication made to them, and of the debt all students of ancient art owed to the department he represented.

The Fifth Gencral Mecting was held on May 29th, when Mr. Horace Sandars read a paper descriptive of a collection of pre-Roman bronze votive objects from Despeñaperros, in Spain, Prof. Lewis Campbell occupying the chair. The collection was on view, and, with its affinities, was also illustrated by lantern-slides. The objects comprised representations of the human figure, in many instances of purely perfunctory workmanship, while
in others the details were carefully elaborated ; some equestrian statuettes of considerable artistic merit ; portions of the human body dedicated-in accordance with a usage with which we are familiar in classical, mediaeval, and modern times-as thank-offerings for recovery from sickness; and, probably to be taken in connexion with these, a set of votive surgical instruments. The ethnological bearing of these objects was interesting. The influence of Greece had reached primitive Spain by two routes - southwards from Massilia, and northwards, by the so-called Phoenician traderoutes, from Gades. To a local school of art, modified by one or both of these channels, and suited to what was then, as now, a mining population, these bronze ex-votos should be attributed. But apart from their intrinsic interest and their ethnological bearing, the collection from Despeñaperros threw light on a work of first importance-the remarkable head found at Elche, the Ibcrian city of Ilici, now in the Louvre. This head, from the extraordinary elaboration of the coiffure, with its huge ear-disks and profusion of necklaces dependent from it, produces a quite unfamiliar impression on the student of Greek art on Greek soil. But its unhesitating acceptance by the Louvre authorities and by the savants who have done most work in the field of early Iberian art-MM. Pierre Paris and Heuzey may be cited-has received fresh confirmation by the little figures from Despeñaperros. These, which are themselves of undoubted antiquity, unquestionably reproduce, when due allowance has been made for the difference of material and an altogether lower standard of execution, the details in the Louvre marble which have hitherto been regarded as unique. In the subsequent discussion the Chairman and Mr. Cecil Smith took part. The latter considered it doubtful whether the influence on Western Europe generally called Phoenician might not really be more directly Ionian. He congratulated Mr. Sandars on the side-light he had been able to throw on the Paris head, though the genuineness of that work had never been, in his judgment, matter of doubt.

The Annual General Meeting was held at Burlington House on June 25th, Prof. Percy Gardner taking the chair. The Hon. Secretary (Mr. George Macmillan) read the following report on behalf of the Council :-

In the forefront of their Report the Council wish to place on record their sense of the loss the Society has sustained by the death of their honoured President, Sir Richard Claverhouse Jebb. His unique position in the world of letters, the grace of style and clearness of vision which lent persuasion to his public utterances, his championship in political life of the cause of literac humaniores, his considered but generous affection for Greece and the Greeks of to-day, gave a peculiar appropriateness and dignity to his tenure of the Presidency of the Society for the Promotion of Hellenic Studies. The Council nominated Professor Percy Gardner, one of the Vice-Presidents, to fill the office
of President until the Annual Mecting, and they will to-day submit his name for election as President for the term of five years.

In November last His Majesty King George of Greece paid his first state visit to this country, and graciously received an address of welcome drawn up by the late President on behalf of the Council of the Society and of the Committee of the School at Athens conjointly. It should also be recorded that $\mathrm{H} . \mathrm{R} . \mathrm{H}$. the Crown Prince of Greece has consented to fill the vacancy on the list of the Society's honorary members.

An important departure in the constitution of the Society, the creation of a class to be known as Student Associates, is now recommended by the Council for adoption. They have long felt that there was a class of younger students, specially interested in the objects of the Society, and likely, by inclination and training, to be useful members, who were debarred by the entrance fee from coming forward as candidates. They have endeavoured to devise a scheme which should confer a boon on the class in question, and inflict no injustice on those who have already assumed the full responsibilities of membership. This could only be done by giving part privilege for a part payment, and in the scheme now produced they believe that this intention is achieved in the fairest manner possible to the largest number. They regret that there will always remain individuals and classes for whom it is not possible to provide in this manner, but they believe that the scheme now laid down will, on a fair trial, prove a benefit to the class in question and to the Society at large.

Another suggested modification in the rules, of which notice has been sent to members, is that the office of President be in future tenable for five years only. A resolution to this effect will be submitted to-day.

In the past session the Society has held more than its usual number of meetings. On November 7 th Professor Ernest Gardner read a paper on the Atalanta of Tegea, and Mr. G. F. Hill communicated a note on Dryops, the Hero of Asine. On January I6th Professor Percy Gardner, as President of the Society, delivered a short address in honour of the late President, and Professor W. C. F. Anderson read a paper on Greek and Roman Ships with multiple banks of oars, embodying a criticism of Mr. W. W. Tarn's paper of the previous session. On February 20th Mr. E. N. Gardiner gave the results of his further research in the sphere of Greek athletics in a paper entitled Heracles the Pancratiast. On May 8th Mr. Cecil Smith spoke on the Recent Acquisitions in the Department of Greek and Roman Antiquities in the British Museum. His paper covered the principal acquisitions in his department since his appointment in 1904, but it is hoped that this résumé may now become an annual event in the Society's Agenda. This striking illustration of the good relations between the Society and the Museum, which Mr. Cecil Smith emphasised in his speech at the Commemorative Mecting of 1904 , will certainly be highly appreciated by members, and his valuable communications should also tend to the
development of the intelligent study of the treasures of our nationai museum.

On May 29th Mr. Horace Sandars kindly exhibited his collection of Pre-Roman zotive bronzes from Despeñaperros in Spain, including in his paper some valuable evidence for the authenticity of the Elche bust in the Louvre.

The annual grants of $£ 100$ to the School at Athens, and of $£ 25$ to the School at Rome, have been renewed for a further period of three years. The School at Athens has now transferred its operations from Crete to Laconia, and Mr. Bosanquet is to be congratulated on the success which has already attended the excavations on the site of ancient Sparta. The Council wish to take this opportunity of offering their good wishes to Mr. R. M. Dawkins, who succeeds Mr. Bosanquet at Athens, and to Dr. Thomas Ashby, who has been recently elected Director by the Managing Committee of the School at Rome.

## The Library:

The urgent question of space in the Society's Library at Albemarle Stieet has been met for the present by fitting with bookshelves the smaller room, the acquisition of which was reported last year. The accommodation for readers in the Library proper is sensibly improved, and it has been possible to maintain the subject order of the books upon the shelves. The promised subject catalogue of the sixty-six bound volumes of tracts is now in use in the Library, and in it are incorporated the detailed contents of some twenty other volumes of opuscula and in honorem works. $13 y$ this means a quantity of valuable matcrial, not otherwise easily accessible, is conveniently placed at the disposal of readers in the Library.

The records show that 372 visits were paid to the Library in the course of the year, as against 375 for the ycar 1904-5, and 338 for the year 1903-4. In addition to the books consulted in the Library, 415 volumes were borrowed, the figures for the preceding years being 401 and 312 .

124 works ( 162 volumes) and 164 pamphlets have been added to the Library. The total accessions for $1904-5$ were 122 in number. Owing to the unusual expenditure of last year the Council found it necessary to reduce its normal grant for the Library from $£ 75$ to $£ 65$, but fortunately the deficit was made good by a special donation of $£ 10$. Members are reminded that it is always within their power to further any department of the Society's work in which they are specially interested by donations of this kind. Among accessions of interest are:-The Archaeological Survey of India (20 volumes), presented by the Secretary of State for India; the large publication Aegina, das Heiligtum der Aplaia, by Furtwängler, Ficchter, and Thiersch ; and Duruy's Historer of Greece (eight volumes).

The Council desire to express their thanks to H.M. Government, the Authoritics of the University Presses at Oxford and Cambridge, the Trustees of the British Museum, the Trustees of the Hunterian Collection in the University of Glasgow, the Archacological Institute of America, the University of California, and the Committee of the Archacological Society of Athens, for valuable donations of books.

The following authors have presented copies of their works:M. A. S. Arbanitopoulos, Professor Baldwin Brown, Mrs. E. Burton Brown, M. P. Champault, Mr. B. F. Fletcher, Rev. A. B. Grimaldi, Mr. J. R. Harris, Prof. Fr. Hauser, Mr. G. F. Hill, Mr. D. G. Hogarth, Mr. George Macdonald, Signor P'. Orsi, Rev. J. B. P'earson, Herr R. Pohl, Herr J. Poppelreuter, Mr. C. S. Reid, Mr. R. Phené Spiers, and Professor U. von WilamowitzMöllendorff. Miscellaneous gifts of books have been received from Mr. A. E. Bernays, Sir John Evans, Mr. F. W. Hasluck, Mr. George Macmillan, Mr. H. B. Walters, and the Librarian. The following publishers have presented recent works:-Messrs. Appleton, Bertelsmann, Black, Colin, Dent, Duckworth, Gerland, Macmillan, Murray, Seeman, Sonnenschein, Steup, Unwin, and Weidmann.

## The Collection of Negatives, Slides, and Photograpiss.

Since the time of the reconstruction of the Collection three years ago, the figures showing the work done in this department are as follows:-Sale of slides (1903-4) 512, (1904-5) 787, (1905-6) 1,247; sale of photographs for the same three years, $465,366,670$; slides hired, 1,224, 3,053, and 2,941.

The statistics in this department show that it has fulfilled expectations by becoming a real and permanent part of the work of the Society. The expenses of maintenance and development are considerable, and it has been thought best to use any profits arising from sales or hire in extending and improving the materials now at the disposal of members. With the aid of a member of the Council, the Librarian has been able to make good progress with the series of slides on Greek Epigraphy. These will be catalogued in the second supplement, which is to appear in the next part of the Journal.

The thanks of the Socicty are due to the following for donations or promises of negatives or prints:-Mr. H. D. Acland, Miss F. Awdry, Miss Bickersteth, Mr. Adam Brown, Dr. R. Caton, Mr. W. Catchpole, Mr. J. Christie, Rev. W. Compton, Miss Dalmahoy, Mr. G. A. Floyd, Mr. F. W. Hasluck, Mr. G. F. Hill, Mr. J. H. Hopkinson, Miss Hoste, Mr. C. R. A. Howden, Mr. L. James, Miss Lloyd, Mr. A. L. Pearce-Gould, Mr. Hugh M. Raven, Mr. S. G. Squire, Mr. P. A. Thomas, and the Librarian.

Special acknowledgment is due to the Argonaut Camera Club for their
kind co-operation in furthering the Society's work in this direction. It is believed that similar help will be forthcoming from members of Professor Ernest Gardner's party which visited Greek lands in the spring.

## Finance.

An examination of the Statement of Accounts for the Session will show a more satisfactory position than was the case in the Report for the preceding year. Instead of a deficit on the year's working, the Council is able to report a surplus of Income over Expenditure of $£_{172}$, after writing off for depreciation the sum of $£ 87$ on the stocks of Excavations at Phylakopi and the Facsimile of the Codex Venetus of A ristophanes. This improvement is partly accounted for by the fact that the cost of reprinting Vol. XXII of the Journal, and of printing and distributing The History of the Society, made the expenses of the 1904-5 Session exceptionally heavy; and partly that, owing to the temporary suspension of the excavations at Cnossus, the grant of $£ 100$ to the Cretan Exploration Fund has not been called for this year. The cost of the two Parts of the Journal is also considerably less than last year, £526 against $£ 618$. In addition to this, a saving has been effected on the cost of printing the Journal and of its carriage to Members, while it is also satisfactory to note that the sales have produced $£ 30$ more than last year, mainly owing to the demand for back Volumes. The sales of the volume on Phylakopi, though not so large as last year, have produced nearly $£ 28$. The account for the Aristophanes Facsimile is less satisfactory, only three copies having been disposed of-two in America and one in England. The Lantern Slides Account shows that this department may be regarded as at least self-supporting, the figures showing a profit of $£ 15$ on the year's working.

The appeal on behalf of the Endowment Fund has resulted in the receipt of $£ 305$ 10s., to which has been added the bequest of $£ 200$ from the late Canon Adam Farrar received during the year. This, it should be noted, is the first legacy the Society has received, but the Council hope that, as time goes on, the generous precedent now set may be followed by other Members. They have invested $£ 500$ of this amount in the purchase of Calgary \& Edmonton $4 \%$ Debentures, the interest on which will increase the Society's income from investments by about £i8 annually. The Council hope that donations to this Fund from time to time will be made so that the above sum may be considerably augmented and permanently assist the work of the Society. It has already been suggested that special Donations to the Library, or to any other department of the Society's work, will always be welcome and will be turned to good account. A list of Subscribers to the Endowment Fund will be included in the second part of the Journill for the current Year.

The Balance Sheet shows a present surplus of Assets over Liabilities of £I72. The debts payable, which include all outstanding Liabilities to the - end of the present financial year, stand at $£ 293$, a reduction of $£ 100$ on the amount at the corresponding period last year. The Cash in Hand at the present time (including $£ 200$ on Deposit Account at the Bank) amounts to $£ 376$ as against $£ 200$ last year. No estimate for the arrears of Subscriptions has been included in the Accounts owing to the uncertain nature of the probable reccipts. This amount stands on May 3ist at $£ 136$.

## Conclusion.

Reference has been made above to the loss the Society has sustained in the death of its President, Sir Richard Jebb. Among others lost by death during the year special mention should be made of the late Provost of Oriel, Dr. D. B. Monro, one of the oldest and most active of our Vice-Presidents, of Professor A. S. Wilkins, who had served on the Council ; of Mr. G. L. Craik, who had filled the office of Auditor for some years ; of the Earl of Morley, one of the fast decreasing band of original members ; of Lord Lingen, Sir M. E. Grant Duff, Sir Clinton Dawkins, Mr. A. E. Haigh, Sir C. A. Cookson, Mr. Octavius Valieri, and Mr. J. A. Sharkey.

During the year 42 new members have been elected and 24 have been lost by death or resignation. The number of members at present on the list is 931, and there are in addition 170 subscribing Libraries and 40 honorary members.

On the whole the Society may look back on a successful year. Its financial position has been strengthened, and considering the increase in the entrance fee the number of accessions has been satisfactory. The Council trust that in the coming year every effort will be made by members to bring in new candidates in order that the Society may be in a position to meet the increasing claims made upon its resources for the promotion of Hellenic research in every department.

The Chairman then delivered an address, summarising the progress of archæological research for the previous twelve months. Having alluded to the losses the Society had sustained during the the year by death, he selected two or three points in the year's work for special note. Among these were the excavations at Sparta conducted by the British School at Athens, and the reconstruction and restoration of ancient buildings in Greece, notably of the Erechtheion at Athens. In the sphere of publication the most important work that had appeared was the monumental book on the temple of Aphaia at Aegina by Prof. Furtwängler and his colleagues, Dr. Fiechter and Dr. Thiersch. The waste products of the earlier excavations had been made use of, and, by the combination of the newly found fragments with those already at Munich, an entirely novel arrangement of the pedimental sculptures had been attained. In this the stiff and mechanical
balance of figure against figure had been replaced by fighting groups on cither side of the central figure of Athena. From this it would seem that the rigid symmetry, which for a century has passed for an essential characteristic of Aeginetan art, is due rather to Cockerell and Thorwaldsen than to the school of Onatas.

The Chairman concluded by moving the adoption of the Report, which was seconded by Mr. E. Pears and carricd unanimously.

The Hon. Secretary (Mr. George Macmillan) proposed 'that the President of the Society be elected for a term of five years and be not immediately eligible for re-election.' The motion was seconded by Dr. Kenyon and carried unanimously.

Prof. Ernest Gardner proposed that the Council be authorised to admit to certain privileges of the Socicty without payment of entrance fee a class to be known as Student Associates. The Rev. G. C. Richards scconded the motion, which was carried unanimously.

Mr . Cecil Smith then gave an illustrated communication on the arrangement of the Parthenon pediments. The so-called Victory of the eastern pediment should now be transferred to the western, as recently discovered documentry evidence proved that this torso was found at the western end of the Parthenon, and the figure appears in Carrey's drawings of the western gable. If, as seems likely, she is there to be identified as Eris, the pediments would be left without any representation of attendant Victories-a most unlikely contingency, whether we consider the place which Victory took in Greek mythology, or the tendency of the Greek artist to make his composition clear by the introduction of subsidiary figures like these, or the analogies supplied by painters of contemporary vases. Mr. Cecil Smith considered that the small figures of Victory did once exist in both the pediments. In the eastern gable a Victory would fill the empty apex admirably: in the western she might appear to emerge from the sacred olive, which would give her the necessary support.

The officers and members of Council as nominated were then declared unanimously elected or re-clected. Mr. E. Norman Gardiner and Mr. F. Marshall were elected to vacancies on the Council. In declaring the ballot Prof. Gardner acknowledged the honour conferred upon him by his election as President of the Society.

The proceedings terminated with a vote of thanks to the auditors, Sir F. Pollock and Mr. A. J. Butler, moved by Mr. L. Dyer and carried unanimously.

A comparison with the receipts and expenditure of the last ten years is furnished by the following tables:-

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[^1]LANTERN SLIDES AND PHOTOGRAPHS ACCOUNT. From JUNE 1, 1905, To MAY 3i, 1906.


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## Tye Society for the Fromotion of Mellenic ミtudies.

## ENDOWMENT FUND.

LIST OF CONTRIBUTORS TO MAY 3i, 1906.





## FOUR'TH LIS'I OF

## BOOKS AND PAMPHLETS

ADDED TO THE

## LIBRARY OF THE SOCIETY

SINCE THE PUBLICATION OF THE CATALOGUE.

1905-1906.

Abbott (E.) History of Greece. Vol. III. 8vo. 1900.

- Eiditor. See Hellenica.

Abbott (G. F.) Tale of a Tour in Macedonia. 8vo. 1903.
 See Rose (V.) Anecdota Graeca.
Aeschylus. Anon. The Orestea of Aeschylus. [Quarterly.]
8vo. 1842.
_- . . . . Modern Criticism of Aeschylus. [Quarterly.]
8vo. 1839.
Agathemerus. Geographia. See Geographi Graeci Minores II.
Ahmed (Bey Kamal). Stèles Ptolénaiques et Romaines. 2 vols. See Cairo, Catalogue du Musée du Caire.
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Anthimus. Epistula ad Mendericum.
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Apollonius Tyanensis. See Philostrati (Ed. C. L. Kayser).


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Apuleius. Physiognomonia.
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Anon. The Metamorphoses of Apuleius: [Edinhurgh.]
Svo. 1851.
Arbanitopoulos (A. S.) Tồ Dıoкдŋтıaveíov סıaүрámцатоs véov ék

Archaeological Institute of America. American School at Rome: Supplementary Papers, Vol. I.

4to. New York. 1906.
Archestratus. See Brandt (P.) Parodiae eqicae graecae. Archiv fur Religionswissenschaft.

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Aristophanes. Frogs. Edd. D. G. Hogarth and A. D. Godley.
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-     -         - The 'Possums' of Aristophanes. [Fraser].

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 Rose (V.) A necdota Graera.
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Arnold (M.) Merope. See Collins (C.)
Athens. Anon. Athens. [Harper.] 8vo. 1881.
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Svo. 1835.
Ausonius Pompa. De instrumento fundi. See Scriptores Rei Rusticae. (Ed. Gesner) IlI.
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Delos, hasis of the colossus:
lacsbos, Ilytitene from the site of the theatre.
    ,, chair from the theatic.
Rhorles, wall and moat.
    ," St. Catherine's gate.
    ,, Lindus, stoa.
'l'lera, stone beams.
    & exalvations.
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hasis of the tripod dedicated after l＇lataen．
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Orohomenns，＇thasary of Minyas，gate from withont．
，：，，，，within．
＂，＂，door of side chamber．
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I＇lan of Athens，central district．（Murray，（frecece p．257．）
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，，cave of P＇an．
，＂plan of excavations on the western slope．
The Olympieum
Ston of the Giants．
British School，l＇enose Lilmrary，exterion＂．
interior．
，，shewing inseription．

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limaens and neighbourhood，listant view of Piraens from the sea．


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    " ", ", capital in I3.M.
    " ", ", column formerly at Nauplia.
    ,, ,, interior.
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5457 Nancratis, selected fragments of pottery. (Naneratis, pl. 7.)
7566 l'raesos: plate in orientalising style. (B.S.A. x, pl. 3.)

## SCULPTURE

> * from original or from photographis reprotuction of orisinal. $1=$ from cast.

## EARLY PERIOD.

bï̈r Argive Ajullo: (Helphes, iv, pl. 1.)
(i53! , , , *profile amd back views. (ic. pl. ¿.)
tisk Nike ol Arehermust restored.
(3:3)2 Lichef of a chariotecr. * Acrop) Mus.
5 5y Fragnent of a lanerary relief, two femate ligures.
529 Cypus, archaic relief of Heracles and Geryon. (ff. J.11.s. xiii, 1. 7.)
609 Selinus Metopes from first temple, with reeonstructed architectural settins.
$6: 367$, Metope lrom temple of Mera, dying giant.:
6:3) Aegina, E. pediment, standing warrior. 'Telamon.
(0359 ,, , kneeling archer. 'Heracles."*

## FINE PERIOD.



## LATE PERIOD.

6570 Archastic weitef of a warrior with funerary serpent.* B. M.
-1572 'Diracle workillg' statuette, a goiddess with piereed breasts." B. M.

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Ardaie relief representing a funcral procession.* (Rayet, Monuments.)
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'Myriua' statuettes. Aphrodite." B. M.
Genre rendering of the boy extracting a thom.

## VASES.

* $=$ photographie view of whole vase from original.
d = pieture subject only from an aderquate illustration.


## BLACK FIGURED VASES.

Birth of Athena, figures of $7 /$ cus and Athena only.

ITeracles and the Nemean lion. *: (Gerh. A. V. 192)
," "Achelons. (fruselte Arehiologitur, 1875, 11. 20.)
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,, wrestliug.
Boys boxing, fragment. (Mristerschelom, fig. 12.)
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Archaic (iraceo-Egyptian bronze statuette * from Balajos. B.M.
Mirror case, Heracles wrestline with the lion.* B. M.
Scatmi statuette of Hermes " from Paramythia. 13.M.
lland of $\Lambda$ remis (part of the decoration of a seat). 'Two srotesques.* IB. M.

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## COINS.

6354 Asine, E., with figure of Dryops.
6530 Rhodes, AR. (B. M. Guide, iii. A. 37.)
5434 Syracuse, A. (Cf. Head. Hist. Num. p. 151, fig. 93.)
6553

Eucratides of Bactria, N. Paris Cabinet.

## INSCRIPTIONS.

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## ISLANDS.

 on rokks and tomls. ${ }^{1 / 1}$
6f02 Roberts, 7. Melos: first periond, ea. 600-550 mex: Metrieal inseription on column of farim marble.
6603 Roberts, $8 a, b, c, i$. Melos: second period, ca, 550-50日. Selection of tomb inscriptions. 9 Cf, also, for form and position of the $\mathbf{\Sigma}, 4518$, coin of l'ovidonia.
6604 Roberts, $8 l, m$. Melos: thind periol, ca. 490-415. Selection of tomb insmiptions. \&
6005 Roberts, $8 q$, t. Melos: fourth period, shortly after the Pelopomesian war. Seleetion of tomb inscriptions. ${ }^{\text {a }}$
6606 Roberts, $9 y$. Gortyn: ea. 600. First diseoverel slat of the longest archaie inseription yet found. * Lourre.
6007 Roherts, 13. Eremophlis ( $=$ ancient Itanos ). Retrograde inser, over the figure of a lish. $\cdot$ : Fitzwilliam Mus., Cambridge.
6608 Roberts, 25 . Naxos: probahly before 600 mec. Inseribed on the archaic imade ilediated at Delos by Nicandra to Artemis. $\boldsymbol{q}^{6}$
(If. also 3614 , view of the statue.
G609 Roberts, 27. Naxos: inscribed on the basis of an arehaie colossmstedicated at Delos hy the Naxians to Aprollo. ${ }^{4}$

Cf. also 5545, 4634, views of the mper half of the monssus in situ, and 5546, view of the basis in sithe.

## ATTICA.

6610 Roberts, 34. Oldest extant Attic inscription, probably seventh century. Retrograde, on a Dipylon Vase. 9

Cf. also 6650, view of this Vase. ©T (A/h. Mithl. vi. pll. 3.)
6611 Roberts, 37. Ca. 600 מ.c. Stele of Enialon. 4
6612 Roberts, 42. Sigemm marble, probably 600-575 p. \% Stele of Phanorlichs: the lower inscription only is Attic. B.M.- $/$
6313 Roberts, 45. Salaminian decree: $575-525$ I: . . , oldest extant Attic decree. ${ }^{*}$
6614 Roberts, 56. Altar dedicated by Pisistratus son of Hippias, $535-510 \mathrm{~ms}$ \%. (Cf. Thueyd. vi. 54, where the altar is mertionel.)

6615 Roberts, 63. Fragment of a marble base. Jefore 500 b.c. ©
6616 Roberts, 66. List of the fallen in the Thasian War. 465-463 в.c.
6617 Roberts, 69. Nointel marble, 460 B.c. (Roberts) or 459.8 13. ©. (Rusolt). Commemorates members of tribe of Erechtheis fallen in Esypt, etw. Lonvre.
6618 Roberts, 70. I'ortion of tribute list. 446 13.,. Attic alphabet in its latest settled form.
6619 Roberts, 71. Dedication of Aristocrates. Before the l'eloponnesian war. (Cf. Aristoph. Aves, 125, 6. Thucyd. viii. 89, 92.)

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## ARGOS.

6620 Joberts, 75. Bronze helmet from Olympia commemorating Argive victory over Corinth. (1a. 536 1.e. 13. M.
di621 Joberts, S1. Part of a basis of Parian marble belonging to a statue by A totos, from Olympia. Before 450 ric. ©

## CORINTH AND ITS COLONIES



Cf. ulso 983 for a general view of these tablets.
Cf. also for the form of the koppa, 5332 , coin of Corintl and 5434 , coin of Syracuse.
6624 Roberts, 111. Helmet of Hiero of Syracuse. 474 B. ©. B. M. Commemorates victory over Etruscans off Cumac. ${ }^{\|}$

## IONIAN ALPHABET.

(6025u ant \% Roberts, 130. Abou Symbel. Probably 594-589 B. . (Psammetichas Il.) rather than 654-617 is.c. (Psomm. J.) Inscriptions written by Greek mercenaries on seated colossal figures.
6626 Roberts, 133. Miletus. Boustrophedon inscription on a lion. B.M. 6
6627 lioherts, 145. Halicamassus. ('it. 153 в.': 'The Iygdamis inseription. The Ionic alphabet as legally adoptel at $\Lambda$ thens 403 1.e. B. M. 4

## WESTERN GROUP.

6628 lioberts, $169,4,48,114,118$ s. $63,345,30,405$, Euboca. Felection from 400 leaden plates found near Styra. ${ }^{\text {a }}$
6629 Iioberts, 216, 7, , Bocotia. ©
6630 Roherts, 232. Oeanthea. Temp. Peloponnesian walr. Bronze tablet containing treaty between Oeanthea and Chaleion. B.M.a
6631 Roberts, 248. Laconia. Stele of Glaukatia. Ath. Nat. Mus. ©
6632 Loberts, 255. Laconia. Dedication of Pleistialas. Sparta Mus. Ca. 500 B.c. $\boldsymbol{F}$
6633 and b Roberts, 257. Laconia. ('ib. 475-450 s. ('. Bronze plate from Tegea recoring a leposit of money by Xouthias.
66334 Roberts, 259. Laconia. Ca. 479 в.c. Serpent column dedicated after Plataca at Delphi : now in Coustantinople. II $^{\text {I }}$

Cf. also 6124 Basis of the tripol in situ at Delphi.
6652 Restoration of the tripol. (Jahrb. i. p. 189.)
3335 View of Hippodrome at Constantinople shewing serpent column in situ.
6635 Roberts, 264. Laconia. Ca. 400 b.c. Stele of Damonon. Sparta Mus.
6636 Roberts, 263. Laconia. Geronthrac. Ca. $418 \mathrm{~B}, \mathrm{C}$. ant $\varepsilon \nu \pi v \lambda \epsilon \mu \varphi$ inscription referring to the battle of Mantincia.

6637 Roberts, 267. Laconia. Ca. 403-398 B.c. Part of a decree recording restoration of lilerty to Delians by Sparta after Aegosputami. ©
6638 Roherts, 280. Arcadia. Marble hase found at Olympia dedicated by Cyniscus.
$66: 39$ Joherts, 285. Arcadia. $365-363$ r.c: Bronze plate from Olympia dating probably from the time when the Arcadians and Pisatans jointly adminstered the affairs of the temple of Zens. $\frac{1}{}$
6640 Roberts, 291. Elis. Ca, 500 乃.c. Bronze plate from Olympia recording 100 years' alliance between Eleans and Heraeans. 13. M. $\mathrm{F}_{\mathrm{i}}$
6641 Roherts, 297 . Elis. Bronze plate from Olympia recording alliance of fifty years letween two otherwise menkown communities, the Anaeti and Metapii.
6642 Joberts, 300 . Elis. Bronze plate from Olympia.
6643. lioberts, 302. Achaea and colonies. Ca. 600 B.e. Sandstone block from Metapontum, Boustrophedon (partially). 9

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## ABECEDARIA

6644 Roberts, 1. 16. Formello: on a vase found in a tomb at Formello, near Veii. Greek alphabet (given twice) of western group and Chalcidian origin: also an Etrusean inscription. ${ }^{[1}$
6645 lioberts, p. 17. Caere: on a vase found in a tomb at Caere (Cervetri). (ireek alphabet of western group and Chalcidian origin. Il
6646 Roberts, p. 18. Colle : minteil on the wall of a tomb at Colle. Only decipherable as far as O. Western sroup and Chalcidian origin. 9
fi648 Roberts, 1, 19. Corinth: manted on pottery fragment. Bonstmophelon. E T only preserved. 9

## MISCELLANEA.

6386 The vine as the origin of characteristic forms in Ionic arehitecture (from a sketeh by Schaf).

6522
6535
6587
6588
7563
7561
7289 Skull ornamented with spirtiform dises, as exeavated at Praesos.
6584 Bronze helmet from Olympia. B.M.
6586 Archaic ivory plaques. 13. M.
6184 Ostrakon with name of Themistoclos.

## NOTICE 'TO CON'TRIBU'TORS.

T'ue Council of the Hellenic Suciety having decided that it is desirable for a common system of transliteration of Greck words to be adopted in the Jonmel of Hellenic Studies, the following scheme has been drawn up by the Acting Editorial Committee in conjunction with the Consultative Editorial Committee, and has received the approval of the Council.

In consideration of the literary traditions of English scholarship, the scheme is of the nature of a compromise, and in most cases considerable latitude of usage is to be allowed.
(1) All Greek proper names should be transliterated into the Latin aphabet according to the practice of educated Romans of the Augustan age. Thus $\kappa$ should be represented by $c$, the vowels and diphthongs $v$, $a \iota$, ou, ou by !/, we, we, and $u$ respectively, final $-o s$ and -ov by $-u s$ and $-u m$, and -pos by $-c$.

But in the case of the diphthong $\epsilon$, it is felt that $c i$ is more suitable than $e$ or $i$, although in names like Laddiceu, Alcxundriu, where they are consecrated by usage, $e$ or $i$ should be preserved, also words ending in - $\epsilon$ tov must be represented by -eum.
A certain amount of diseretion must be allowed in using the o terminations, especially where the Latin usage itself varies or prefers the 0 form, as Delos. Similarly Latin usage should be followed as far as possible in $-\varepsilon$ and $-a$ terminations, e.g., Prienc, Smypun. In some of the more obscure names ending in -pos, as $\Lambda$ éaypos, -cr should be avoided, as likely to lead to confusion. The Greek form -on is to be preferred to -o fur names like Dion, Hicron, except in a name so common as Apollo, where it would be pedantic.
Names which have acquired a definite English form, such as Coriuth, Athens, should of course not be otherwise represented. It is hardly necessary to point out that forms like Hercules, Mercury, Minerva, should not be used for Heracles, Hermes, and Athena.
(2) Although names of the gods should be tramsliterated in the same way as other proper names, names of personifications and epithets such as Nike, Homonvie, Hyalinthios, should fall under \& 4.
(3) In no case shonld aceents, especially the eiremollex, be written over vowels to show quantity.
(4) In the case of Greck words other than proper names, used as names of personifications or technical terms, the Greek form should be tramsliterated letter for letter,, b being used for $\kappa$, ch for $\chi$, but $y$ and $u$ being substituted for $v$ and ov, which are misleading in English, c.g., Nike, upoxyomenos, dicudumenos, rhyton.

This rule should not be rigidly enforced in the case of Greek words in common English use, such as ucgis, symposium. It is also necessary to preserve the use of ou for ov in a certain number of words in which it has become almost universal, such as boule, gerousia.
(5) The Acting Editorial Committee are authorised to correct all MSS. and proofs in accordance with this scheme, except in the case of a special protest from a contributor. All contributors, therefore, who object on principle to the system approved by the Council, are requested to inform the Editors of the fact when forwarding contributions to the Journal.

In addition to the above system of transliteration, contributors to the Journal of Hollenic Stadies are requested, so fiar as possible, to adhere to the following conventions:-

## Quotations from Anciont rand Moulcrn Authorilies.

Names of authors should not be underined; titles of books, articles, periodicals, or other collective publications should be underlined (for italics). If the title of an article is quoted as well as the publication in which it is contained, the latter should be bracketed. 'Thus:

Six, Jahrb. xviii. 1903, p. 34,
or-
Six, Protogenes (Juhrb xviii. 1903), p. 34.
But as a rule the shorter form of citation is to be preferred.
The number of the edition, when necessary, should be indicated by a small figure above the line ; c.y. Dittenb. Syll. ${ }^{2}$ 123.

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## Titles of Periortical and Collective Publications.

The following abbreviations are suggested, as already in more or less general use. In other cases, no abbreviation which is not readily identified should be employed.
A.-E. II. = Archäolorisch-epigraphische Mitheilungen.

Amm. d. $I .=$ Annali dell' Instituto.
Arch. Anz:=Archäologischer Anzeiger (Beillatt zum Jahrumeli).
Arch. Zeit, = Archäologische Zeitung.
Ath. Nitth. = Mittheilungen des Dentschen Arch. Inst., Athenische Abtheilung.
Baumeister = Baumeister, Denkmiler des klassischen Attertums.
B.C: $I$. $=$ Bulletin de Correspondance Hellénique.

Berl. Vus, = Furtwängler, Beschreibung der Vasensammlung zu Berlin.
B. M. Bionzes $=$ British Museum Catalogue of Bronzes.

B3.II.C: = British Museum Catalogue of Greek Coins.
13.M. Inscr. = Greek Inscriptions in the British Musenm.
13.1/. Vascs = British Museum Catalogue of Vases, 1893, etc.
$B . S$. $A=$ Annual of the British School at Athens.
Bull. d. $I=$ Bullettino dell' Instituto.
Busolt = Busolt, Griechische Geschichte.
C.I.G. $=$ Corpus Inscriptionum Gracearum.
C.I. L. $=$ Corpus Inscriptionum Latinarum.

C\%. Rev. $=$ Classical Review.
C:R. dead. Luscr: = Comptes Rendus de l'Acalémie des Inscriptions.
Dar.-Suyl. = Darembery-Sachlio, Dictionnaire des Antiquités.
Dittenb. O.G. $I_{=}=$Dittenberger, Orientis Graeci Inscriptiones Selectae.
Dittenb. Syll. = Dittenberger, Sylloge Inseriptionum Graecarum.

G.D.I. $=$ Collitz, Sammlung der Griechischen Dialekt-Inschriften.

Gerh. A.V. $=$ Gerhard, Auserlesene Vasenbilder.
G.G. A. $=$ Güttingische Gelehrte Anzeigen.

Head, $H$.N. $=$ Heal, Historia Numorum.

I.G.A:=Röhl, Inscriptiones Graecae antiquissimae.

Jahrb, $=$ Jahrbuch des Dentschen Archäologischen Instituts.
.Jthresh. = Jahreshefte des Oesterreichischen Archiologisischen Institutes.
J. II.S. $=$ Journal of Hellenic Studies.

Le Bas-Wadd = Le Bas-Waddington, Voyase Archéologique.
Michel-Michel, Recueil dInscriptions grecques.
IIon. l. I. = Monumenti dell' Instituto.
Mïller-Wies. $=$ Müller-Wieseler, Denkmiler der alten Kunst.
Mus. Marlles = Collection of Ancient Marbles in the British Museum.
Neue Jalrbb hil. Alt. = Neue Jahrbiicher für das klassische Altertum.
Neue Jthrlb. P'lil. = Nene Jahrloiicher fuir Philologie.

[^2]]\nu \sigma\tau\etá\lambda\lambda\lambda\eta\nu \dot{\nu}\nu\epsiloń\sigma\tau\eta\sigma\sigma\epsilon
i\pi\pia\rho](\chi)ov̂\nu\tauo\varsigma 'E\rho\mu[o]\delta\dot{\omega}\rhoov (\tau)o\hat{v}
'A\pi]o\lambda\lambda\omega\nuiov, i\epsilon\rho\eta\sigma[a\mu]\epsilońvov \tau\eta\s
M\eta]т\rhoòs \sum\omega\sigma\iota\gamma\epsilońvov[s \tau]ồ Mevé<v>\phi\rhoo[vos
\pi\rhoo]\sigma\lambdaa\betaóvtos Ai<<\delta>\lambdaiov 'Iov\lambdaiov..
? ... Ko\rho\nu\eta}\boldsymbol{\eta}\lambda\iotaos Ni\gamma\ell\rho...
i\epsilon\rho\eta}[\sigmaa\tauo Kai\sigmaa\rhoosкаìध̇\pi\epsilon-]
[\tau\epsiloń\lambda\epsilon\sigma\epsilon\tauoov` à\gamma\hat{\omega}\nua\varsigma]

```

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    Kaí. Tí\tauov A i\lambda.'A }\delta\rho\iotaa\nuoov ['A\nu
    \tau\omega\nu\epsiloni\nu ov ?], i\epsilon\rho\eta\sigma[a\mu\epsiloń\nuov
    \tau\hat{\}\mp@subsup{\textrm{M}}{\eta}{\tau}]|\rho<\imath>òs Ko\delta\rhoá\tauov, ....
    i\epsilon\rho\etá\sigma]ато Kai\sigmaароякаì є̇\pi\epsilon-
    \tau\epsiloń\lambda\epsilon\sigma\epsilon \tauov̀s ả\gamma\omegâ\nuas
    i\pi\pia\rho\chiov̂\nu\tauo\varsigma]'A\nu\tau\omega\nu(\epsiloni\nuov ?) \Sigma[\epsilon-
    \betaа\sigmaтой ??] \Thetaєо́крьто(я) Өєок-
    p](i\tau)ov iє\rho\etá\sigmaато Kai(\sigma)a[\rhoos
    ка\grave{ \epsiloń\pi\tau\epsilon\tau\epsiloń\lambda\epsilon\sigma\epsilon\epsilon \tauov̀ৎ \grave{\gamma}}\boldsymbol{\omega}\nua\varsigma.
    ```

For the form iєрйбато，cf．J．H．S．xvii．271，12．iєрך \(\sigma a ́ \mu \epsilon \nu o \nu\).

From the inscription we gain the following informatior
1. That the worship of the Proconnesian Mother (Paus. viii. 46) was important down to Imperial times, and that the priest was either the eponymous of Proconnesus or intimately associated with the Imperial cult: the Imperial festival mentioned, it should be remarked, was certainly not annual, as is shewn by the intercalated Hipparch Euneos: the mention of the setting up of the stele suggests that the cult was only established in Hadrianic times. A dedication to Antoninus is published by Gedeon (op. cit. p. 101, Pl. II. 11.)
2. Several new Hipparchs' names, viz. :
(a) Claudius Decianus (Euneos?): a Claudius Euneos was certainly strategus at Cyzicus under Hadrian (Coins e.g. B.M. 214; cf. also a base at Yeni Keni, Ath. Mitth. vii. 25̈4. 24).
(b) Hermodorus Apollonii.
(c) Antoninus : on the poor authority of (2), but in consideration of other Imperial hipparchates at Cyzicus (Caligula, Ditt. 2. 365, Drusus, J.H.S. xxiv. 28). Antoninus was certainly at Cyzicus as proconsul in 120 (Waddington, Fastes No. 135).
F. W. Hasluck.

\section*{CLAY-SEALINGS FROM THE FAYUM.}

During the excavations of Messrs. Hogarth Grenfell and Hunt for the Egypt Exploration Fund in the winter of 1895-6 on the site of Karanis (Kom Ushim) in the Fayum, a considerable number of clay-sealings were found, mainly in the cellars of the Roman houses. These were recently put in my hands for investigation and offer some interesting material.

The sealings have evidently come from varions kinds of articles: in many instances the clay is too much broken for any determination of the shape which it had taken to be possible; but among the better preserved pieces are examples from the mouths of bottles, some of which have been squeezed down into the neck like a cork, others placed over a linen covering, sometimes tied down with cord: others are from the flat sides of wooden boxes, often showing the marks of cord : others again from parcels of irregulat shape, in some cases seemingly wrapped in papyrus. The common points of all are that they consist of lumps of Nile-mud, and that they have been impressed, while the clay was damp, with signets, which were presumably those of the merchants who forwarded the goods upon which the sealings were placed. It is these impressions which give the interest to this collection, and they are therefore catalogned in the following list.

It should be premised that the material is not a grood one for taking sharp impressions from intaglios, and therefore the descriptions of the work must in some cases be rather vague. Some of the sealings, also, are breaking up through the impregnation of the clay with salt; and in a few instances the only example of a type preserved is incomplete. The list, however, attempts to give, so far as is possible, in addition to a description of the type and size of the seal, a rough classification of the workmanship : the number of impressions of each type is added. In the descriptions, the position of the objects is as they appear on the sealing.

> A.-Grueco-Ey!ptian and Efyphiun Deities.
1. Head of Sarapis, facing, crowned with modius.
\[
\begin{equation*}
\text { Oval. } 14 \times 11 \mathrm{~mm} \text {. Fairly good. } \tag{弓}
\end{equation*}
\]
2. Bust of Sarapis to right, wearing modius: hair bound with taenia. Oval. \(12 \times 8 \mathrm{~mm}\).

Poor.
3. lhust of Sarapis to right, wearing modius: hair bound with taenia. Oval. \(15 \times 11 \mathrm{~mm}\). Fairly good.
1. Head of Sarapis to right, wearing modius.
\[
\begin{equation*}
\text { Oval. } 15 \times 10 \mathrm{~mm} \quad \text { Poor. } \tag{5}
\end{equation*}
\]
5. Head of Sarapis to right, wearing molius, surrounded by legent AIUNCAPAMIC Oval. \(12 \times 10 \mathrm{~mm}\). Norlerate.
fi. Bust of Surapis facing (impression from a signet in high relief).
7. Heal of Helios Sarapis to right, wearing modius and radiate crown : in front an olject (deficerl). Oval. \(15 \times 11 \mathrm{~mm}\). Good.
s. Sumpis seatel to right on throne with high back, with left hand stretched out (part of impression defaced). Oval. \(15 \times 12 \mathrm{~mm} . \quad\) Fair (?)
!). Jugate busts to right of Sarapis, wearing motius and taenia, and Isis, crowned with disk and horns: both draped. Oval. \(125 \times 10.5 \mathrm{~mm}\). Fair.
10. Jugate busts to right of Sarapis, wearing taenia, and Isis, crowned with disk and horns: both draped.

Oval. \(16 \times 11^{\circ} \mathrm{mm}\). Fairly good.
11. Busts of Sarapis to right, erowned with morlins: behind, bust of Isis to right, crowned with horns and phmes: before, bust of hawk-headed Horus to left, crowned with modits.

Circular. 14 mm . Rough.
12. Busts of Sarapis to right, wearing modius, draped, and hawk-headed Horus to right, draped, divided by vertical line.

Circular. 11 mm . Fairly good.
13. Bust of Sarapis to right, flanked by figures of Dioscuri standing facing with heads turned inwards: below the bust, in two lines, the name

ACI
Rectangular. \(16 \times 12 \mathrm{~mm}\). Poor.
14. Sarapis stanling facing, with head turned to left, crowned with modius, wearing chlamys thrown over left arm, in right hand holding patera over altar : on left, Isis standing to right, crowned with disk and horns, wearing long chiton, holding in left hand it wreath over head of Sarapis, and on right arm a cornucopiae.

Circular. 11 mm .
Fair.
15. Bust of Sarapis to right, crowned with modius: below, eagle standing with wings spread and raised, head to left.

Oval. \(15 \times 12 \mathrm{~mm}\). Coarse.
(2)
16. Head of Sarapis to right: in front, defaced object: below, eagle standing turned to left, with wings spread, head to right.

Oval. \(15 \times 11 \mathrm{~mm}\). Coarse.
17. Head of Sarapis to right, wearing taenia and crowned with modius, faced by ram standing to left, above which a crescent.

Oval. \(15 \times 11 \mathrm{~mm}\). Fair.
18. Head of Sarapis to left, crowned with modius, faced by griffin standing to right.

Oval. \(15 \times 11 \mathrm{~mm}\). Moderate.
19. Bust of Sarapis to right, wearing taenia and crowned with modius, flanked on each side by uraeus erect turned inwards.

Circular. 19 mm . Fairly good.
(6)

20 . Bust of Sarapis to right, wearing taenia and crowned with modius, flanked on each side by uraeus erect turned inwurds : beneath, a horizontal line : below this, scarab with wings spread.

Oval. \(19 \times 14 \mathrm{~mm}\).
Poor.
(2)
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D
21. Bust of Sarapis to right, crowned with modius: behind, a vulture (?) to right, in front, a hawk to left, both standing on a horizontal line: from the middle of this, a vertical line dividing lower part of field, on each side of which a lion walking inwards: at bottom, scarab with wings spread.
\[
\begin{equation*}
\text { Oval. } 17 \times 13 \mathrm{~mm} . \quad \text { Poor. } \tag{1}
\end{equation*}
\]
22. Head of Sarapis to right, flanked by erect uraei turned inwards: below, two lions standing facing each other: at bottom, scarab with wings spread.
\[
\begin{equation*}
\text { Oval. } 17 \times 12 \mathrm{~mm} . \quad \text { Poor. } \tag{7}
\end{equation*}
\]
23. Isis seated to right on high-backed throne, crowned with disk and horns and wearing a long chiton: she nurses an infant Harpokrates crowned with skhent, raising his right hand and holding in his left a lotus-flower (?): in front 1 H (or HI).
\[
\begin{equation*}
\text { Oval. } 16 \times 12 \mathrm{~mm} \text {. Rough. } \tag{8}
\end{equation*}
\]
24. Isis seated nursing Horus as on 23, but Horus holds nothing in his left hand. Oval. \(18 \times 12 \mathrm{~mm}\). Fair.
25. Bust of Horus, body facing, head to right, crowned with disk, and wearing deep collar: side-lock shown. Oval. \(15 \times 11 \mathrm{~mm}\). Fair.
26. Bust of Horus, body facing, head to right, wearing deep collar: side-lock shown. Oval. \(10 \times 7 \mathrm{~mm}\). Moderate.
27. Bust of Horus, body facing, head to right, wearing deep collar, side lock shown : in front, serpent.

Oval. \(15 \times 11 \mathrm{~mm}\). Coarse.
28. Bust of Horus as on 27, with serpent in front.

Oval. \(12 \times 9 \mathrm{~mm}\). Fairly good.
29. Bust of Horus, hawk-headed, body facing, head to right, crowned with skhent and wearing deep collar.

Oval. \(14 \times 10 \mathrm{~mm}\).
Fair.
30. Bust of Horus, serpent-headed, body facing, head to right, wearing deep collar. Oval. \(12 \times 9 \mathrm{~mm}\). Moderate.
31. Horus seated to right on ground, with knees drawn up, crowned with skhent, holding out serpent in his right hand. Oval. \(12 \times 9 \mathrm{~mm}\). Roagh.
32. Horus seated with serpent as on 31 .

Oval. \(10 \times 6 \mathrm{~mm}\).
Poor.
33. Horus standing facing, head to right, nude, holding up a serpent in each hand.
\[
\text { Oval. } 12 \times 9 \mathrm{~mm} . \quad \text { Fair. }
\]
34. Horus standing with serpents as on, 33. Oval. \(14 \times 10 \mathrm{~mm}\). Rough.
35. Horus seated to left on throne, wearing long robe: behind him, gazelle to right (upper part only shown): before him, baboon seated on its haunches to right: above this, ibis (?) to right: over his head, an indefinite object: he holds out a snake (or scorpion) with both hands.

Oval. \(15 \times 13 \mathrm{~mm}\). Poor.
36. Horus seated to left, nude, with knees drawn up, on basket: facing him, winged griffin seated to right, with left front paw raised : above its head, uraeus erect to right: between this and head of Horus, scarab : above this, scorpion to right. Oval. \(16 \times 11 \mathrm{~mm}\). Fair.
37. Horus seated to right, nude, with knces drawn up, disk on head: facing him, hawk standing to left : over it, disk and uraeus (!) to left.

Oval. \(17 \times 13 \mathrm{~mm}\).
Coarse.
38. Bust of Harpokrates to right, crowned with skhent, finger to lips.
\[
\begin{equation*}
\text { Oval. } 8 \times 5 \mathrm{~mm} \text {. Poor. } \tag{6}
\end{equation*}
\]
39. Harpokrates standing to left, nude, with right hand to lips, and cornucopiae on left arm.
\[
\begin{equation*}
\text { Oval. } 12 \times 8 \mathrm{~mm} . \quad \text { Fair. } \tag{13}
\end{equation*}
\]
40. Harpokrates (?) standing to left, nude, with right hand raised, left resting on sceptre : in front, altar. Oval. \(11 \times 8 \mathrm{~mm}\). Fair.
41. Harpokrates seated to left, on lotus-flower, nude, disk on heal, with right hand to lips, holding club in left. Oval. \(13 \times 10 \mathrm{~mm}\). Poor.
42. Harpokrates seated on horse advancing to right, nude, crowned with skhent (?), head turned back, hand to lips. Oval. \(12 \times 9 \mathrm{~mm}\). Rude.
43. Harpokrates seated to right, apparently nude and crowned with moditis, left hand to lips, right holding scourge over shoulder, on ram walking to right. Oval. \(16 \times 11 \mathrm{~mm}\). Fair.
44. Harpokrates seated to left, nude, with right hand to mouth, on back of androsphinx couched to right.
\[
\begin{equation*}
\text { Circular. } 12 \mathrm{~mm} . \quad \text { Poor. } \tag{1}
\end{equation*}
\]
45. Bust of Hershef, ram-headed, facing, showing horns on each side, wearing hem-hem crown. Oval. \(15 \times 11 \mathrm{~nm}\). Rough.
46. Bust of Zeus Ammon to right, draped, crowned with disk. Oval. \(15 \times 12 \mathrm{~mm}\). Fair.
47. Bust of Zeus Ammon to right, draped, crowned with disk. Rectangular. \(12 \times 10 \mathrm{~mm}\). Fair.
48. Heal of Zeus Ammon to right, crowned with disk: below, ram standing to right crowned with disk and horns. Oval. \(17 \times 13 \mathrm{~mm}\). Rough.
49. Anubis, jackal-headed, standing facing, head to left, nude, holding palm-branch (?) is right hand, in left caduceus: chlamys thrown over left arm. Oval. \(14 \times 10 \mathrm{~mm}\). Fair.
50. Hermanubis standing facing, head to left, nude, with legs crossed, and left elbow resting on pillar: in right hand palm-branch, in left caduceus (?)
\[
\begin{equation*}
\text { Oval. } 15 \times 12 \mathrm{~mm} . \quad \text { Fair. } \tag{1}
\end{equation*}
\]
51. Bust of Osiris, facing, wearing atef (?) crown, scourge over each shoulder. Oval. \(14 \times 12 \mathrm{~mm}\). Rude.

\section*{B.-Greek Deities and Mythical Figures.}
52. Bust of A thene to right, wearing helmet : in front, spear upright. Oval. \(12 \times 10 \mathrm{~mm}\). Fair.
53. Athene advancing to right wearing long chiton, left hand raised, with right seizing serpent erect in front. Oval. \(12 \times 9 \mathrm{~mm}\). Poor.
54. Bust of Apollo to right, wearing taenia, chlamys over shoulders (of archaistic style). Oval. \(10 \times 9 \mathrm{~mm}\). Fair.
55. Bust of Helios to right, wearing radiate crown, chlamys over shoulders. Oval. \(13 \times 9 \mathrm{~mm}\).

Fair.
56. Head of Herakles to right, bearded, wearing taenia. Oval. \(17 \times 15 \mathrm{~mm}\). Coarse.
57. Head of Herakles to right, bearded. Oval. \(15 \times 11 \mathrm{~mm}\).

Fair.

5is. Herakles standing facing, head to right, nule, holding out on left hand figure of Nike, in right hand lion-skin and club.

Oval. \(15 \times 9 \mathrm{~mm}\).
Fair.
(2)
59. Tyche standing to right, wearing long chiton and peplos, crowned with modius: in left hand mdder, on right arm cornucopiae.

Oval. \(1 \bar{\infty} \times 10 \mathrm{~mm}\). Fair.
60. Tyche standing to left, wearing long chiton, crowned with modins: in right hand rudder, on left arm cornucopite.
\[
\begin{equation*}
\text { Oval. } 18 \times 14 \mathrm{~mm} \text {. Fairly good. } \tag{1}
\end{equation*}
\]
61. Leda reclining to left, with robe over legs, embraced by swan. Oval. \(14 \times 11 \mathrm{~mm}\).
(62. Gorgoneion. Oval. \(18 \times 14 \mathrm{~mm}\) Eair.

> C!--E!yptian Animal Forms.
63. Ram standing to left, with head turned back: round upper edge from right, with letters ontwards, the lesent \(\in I C \in \in O C\) Oval. \(13 \times 11 \mathrm{~mm}\). Fiar.
(i4. Hawk-headed crocodile (Soknopaios !), crowned with disk (?), to right, heal turned back: behind head, crescent: legs twisted underneath: below, two lines (perhaps \(\overline{\text { 万 }}\) ).
\[
\begin{equation*}
\text { Oval. } 16 \times 13 \mathrm{~mm} \text {. Rongh. } \tag{7}
\end{equation*}
\]
\(\therefore\) Winged grillin seated to right on haunches. Oval. \(15 \times 14 \mathrm{~mm}\). Rongh.
bif. Winged sriftin, seated to risht on haunches : right fure-paw on wheel. Oval. \(16 \times 15 \mathrm{~mm}\). Morlerate.
:- Winged grilim, couched to right. Oval. \(10 \times 7 \mathrm{~mm}\) Fair.
68. Griffin seated to right on haunches. Oval. \(12 \times 9 \mathrm{~mm}\). Poor.
fi9. Lion-headed sphinx conched to right: below, scarab with wings spread. Oval. \(13 \times 10 \mathrm{~mm}\). Fiir.
(0). Lion-headed sphinx conched to right: below, scarab with wings spread: behind liead, crescent (\%). Oval. \(14 \times 11 \mathrm{~mm}\). Moderate.
71. Human-headed splinx conched to right, with Egyptian headdress: tail turned over back, will threefold end : in right paw, ankh (") uprisht. Oval. \(16 \times 13 \mathrm{~mm}\). Moderate.
72. Uraens serpent erect to right, crescent on head : a key (\%) horizontally across field: at elge, below, on right, O , above, on left, 9 (i.e. ГOP reversed). Circular. 33 mm . Fair.
73. Two maei, ereet, crowned with disks, facing one another. Oval. \(15 \times 12 \mathrm{~mm}\). Fair.
74. 'Two uraei erect, facing one another. Oval. \(14 \times 12 \mathrm{~mm}\) Poor.
75. Two uraei as 74. Oval. \(12 \times 10 \mathrm{~mm}\). Poor.
76. Two uraei as 74. Oval. \(13 \times 11 \mathrm{~mm}\). Poor.
7\%. Two uraei as 74, but crowned with crowns of Upper and Lower Egypt respectively. Oval. \(12 \times 10 \mathrm{~mm}\). Coarse.
(2)
78. Stamp divided into two compartments vertically : in left one, uraeus serpent erect to right: in right, コ90 downwards : surrounded by line-border (?'O \(0 \sigma \epsilon \nu 0 u ̂ \phi \iota s\) ). Rectangular. \(30 \times 25 \mathrm{~mm}\). Rough.
79. Uraeus serpent with head of Sarapis, erect to left, crowned with modius, confronted by uraeus with head of Isis, erect to right, crowned with disk and horns: both on basket-base.

Oval. \(16 \times 12 \mathrm{~mm}\). Moderate.
80. Serpent with human head erect to right, crowned with plumes, confronted by hawk standing to left.

Oval. \(16 \times 13 \mathrm{~mm}\). Rude.
(3)
81. Agathodaemon serpent with human head erect to right, crowned with modius (?), holding in its coils stalks of corn.

Oval. \(16 \times 11 \mathrm{~mm}\). Fair.

\section*{D.-Miscellaneous Scenes.}
82. Figure of a man with right hand raised, in chariot drawn by two horses advancing to left. Circular. 12 mm .

Poor.
(1)
83. Figure riding to right, with right hand raised, apparently on a bull with its tail in the air: before this a male figure reclining to left, with right hand outstretched, and cornucopiae (?) on left arm (perhaps Nilus).
\[
\text { Oval. } \quad 16 \times 10 \mathrm{~mm}
\]

Moderate.
(4)
84. Bearded figure standing to left, wearing short chiton and extending hand to smaller figure in front standing to right with hand raised : on the left, an indefinite object: on the right, a palm-tree and a hawk (?) standing to left: below, a line, beneath which two figures looking towards one another with hands raised over an altar (?) and to right of these three figures facing with both arms raised.
\[
\begin{equation*}
\text { Oval. } 18 \times 15 \mathrm{~mm} . \quad \text { Rude. } \tag{2}
\end{equation*}
\]
85. Three figures standing facing, in long robes. Circular. 12 mm . Moderate.
86. Three figures standing facing, in long robes: the centre one with both arms raised, the outer ones with outer arm raised in each case.

Circular. 13 mm .
Rude.
87. Nike flying to right, in long chiton, holding out wreath over figure lying on ground. Oval. \(15 \times 10 \mathrm{~mm}\). Fair.
88. In centre, tree, on right of which a man (?) standing to right, with altar in front : on left, an animal standing to right with head turned back.

Oval. \(13 \times 10 \mathrm{~mm}\). Poor.
89. Lion springing to right on gazelle couched to right with head turned back. Oval. \(16 \times 12 \mathrm{~mm}\).

Fair.
90. Modius filled with corn : serpent issuing to right : below, indefinite object. Oval. \(17 \times 11 \mathrm{~mm}\).

Moderate.

> E.-Busts : possibly Portraits.
91. Female bust to right, hair bound with taenia (possibly Cleopatra VII). Oval. \(21 \times 16 \mathrm{~mm}\). Moderate.
92. Bust to right, with Egyptian royal headdress: in front, \(A П O\) Oval. \(15 \times 11 \mathrm{~mm}\).

Fair.
93. Bust to right, with Egyptian royal headdress : beneath, crocolile to right. Oval. \(14 \times 10 \mathrm{~mm}\). Fair.
\(\begin{array}{lcl}\text { 94. Bust (male ?) to right. } & \\ \text { Oval. } 12 \times 8 \mathrm{~mm} . & \text { [Worn.] } \\ \begin{array}{cc}\text { 95. Male bust to right. } \\ \text { Oval. } 15 \times 11 \mathrm{~mm} . & \text { [Worn.] }\end{array}\end{array}\)
F.-Names and Linear Devices.
96. Name in two lines \(\begin{array}{c}\text { ШИИО } \\ \jmath 19 \phi\end{array}\) ('о \(\left.\nu \nu \bar{\omega} \phi \rho \iota s\right)\)

Rectangular. \(10 \times 6 \mathrm{~mm}\).
97. Part of stamp in two lines: apparently \(\left.\begin{array}{l}\mathrm{ON} / \\ \mathrm{TBI}\end{array}\right\}\)

Oval. \(15 \times 10 \mathrm{~mm}\).
ragment of stamp with name \(\{\backslash \mathrm{API}\}\)
Circular (?)
99. Key shown horizontally, handle to right: above, MIA AA Э, below, WTAq8尹

Rectangular. \(14 \times 8 \mathrm{~mm}\).
100. Linear device.

Rectangular. \(11 \times 5 \mathrm{~mm}\).

Ten stamps too much damaged for identification.

The main importance of this group of sealings lies in the evidence given by them as to the kind of devices favoured for signet-rings among members of the merchant class in Egypt: incidentally, some light is thereby thrown on the popularity of various deities in the same society. Whether the rings were specially made to order-as must have been the case where they were engraved with the owner's name-or selected by purchasers from a stock kept ready by the dealer, it may reasonably be assumed that, as a rule, a man's religious partialities would influence his choice of a signet, and that engravers, when preparing a supply of goods, would have a special regard to the ideas and beliefs most generally current among their customers. It will be observed that types connected with Egyptian or Greek religion and mythology form the great majority in the foregoing catalogue.

Fortunately, it is possible to compare with this collection a list of signets from another district. In the first half of the second century A.D. it was customary at Oxyrhynchus for the witnesses to a will to specify their \(\sigma \phi \rho a \gamma \hat{\imath} \delta \epsilon \varsigma\); and nine of the published Oxyrhynchus papyri (Nos. 105, 489-492, 494, 634, 646, 649) thus give particulars of thirty-five examples. The following is the list of the devices:-

Sarapis (6 examples): Isis (2): Harpokrates (3): Harpokrates standing: Harpokrates on a lotus: Ammon: Helios Ammon: Zeus: Zeus on an eagle : Athene (3): Apollo: Hermes (3): Herakles (2): Dionysus: Silenus: Tyche with a rudder: 'Thonis: Enkanopos: סракоуто́ \(\mu о \rho ф о s\) (probably a serpent with human head) : a philosopher (2): \(\Delta\) iovv \(\sigma o \pi \lambda a ́ \tau \omega \nu\).

This list shows much the same kind of types as the Fayum sealings, and the owners of the Oxyrhynchus signets were doubtless of the same social rank as the merchants who sealed the jars and boxes for the Fayum trade: at any rate, it is clear from the contents of the wills that the testators were 'middle class' people, living in the town and possessed of some small property; and they would presumably find the witnesses to their signatures among members of their own class.

These Oxyrhynchus signets are also not far removed in date from the Fayum sealings. The latter appear to be of the middle of the second century A.D.: the scanty epigraphic evidence given by the names or legends engraved on the seals points generally to this period; and a closer determination can be obtained from the types. These show, as will be more fully stated later, a general relation to the reverse-types of the Alexandrian coins: and in two instances-Nos. 13 and 14 -the resemblance is so close that the devices on the signets must either have been borrowed from the coins or derived from the same source. The coins in question (Dattari Numi Alexandrini \(2863=\) British Museum Catalogue (Alexandria) 1108, and Dattari 3530 ) are both large bronze pieces of Antoninus Pius; and, like many of this series and reign, have for their reverse-types somewhat elaborate groups of a kind almost unknown in earlier and later periods of the Alexandrian mint. It is not practicable here to discuss at length the general question of the derivation of such types; but there is much reason to suppose that the die-engravers to the mint in this reign did not as a rule take their types directly from any existing works of art, but designed them freely and with some originality. If this is granted, the signet-devices must have been borrowed from the coins, and were probably engraved very shortly after the issue of the latter, as the Alexandrian bronze coinage of the second century wore badly and soon became defaced: their date may therefore be taken as about the end of the reign of Antoninus Pius.

The types have been roughly classified in the catalogue; but it is worth while to examine some of them in more detail. There is a distinct preponderance of Egyptian and Graeco-Egyptian religious subjects (classes A and C) among them ; and the largest part of these is supplied by representations of the Alexandrian triad-Sarapis, Isis, and Harpokrates or Horus. It may be observed that, while Sarapis and Harpokrates are frequently represented alone, Isis only appears either by the side of Sarapis or nursing Harpokrates. This circumstance may be illustrated by the relative frequency and nature of references to these deities in papyri, and by other extant representations. Sarapis was, practically, the official supreme deity: if the writer of a letter expressed a wish for the health of a friend, this almost invariably took the form of a prayer to Sarapis. His temple at Alexandria was the chief one of the town, the neocorate of which was a sufficient honour to be accepted by Roman officials ; and most provincial towns seem to have had similar Sarapieia which, if Oxyrhynchus is a typical example, served as centres of the social life of the towns in which they stood. But, while temple statues of Sarapis must have been common, and a comparatively large number of
remains of large figures of him are extant, minor representations in bronze or terracotta are proportionately rare; and almost all conform to one or two fixed types, one seated, the other standing. It would perhaps be fair to describe Sarapis as a god who was worshipped in temples. Isis is much more frequently mentioned than Sarapis, though commonly with the addition of one of her myriad names, marking her as a local form of the gotdess which had possibly been quite distinct in origin; and her worship was usually joined and subordinated to that of some male god. Her temples, or rather shrines, were apparently of small official account: in the ordinances of Ptolemy Euergetes II they are classed with animal shrines, and such evidence as is given by the papyri concerning them goes to show that they were not endowed, but depended for their support on the offerings of the pious and the begging of the priests. The essential importance of the Isis worship seems to have been in the fact that it was a link with an earlier period of Egyptian religion: she was a native goddess, who was allowed to remain in the official triad; and, though crowded out of the first place in the temples, was kept in evidence by the priests. She had become the goddess of the wayside. The popular god, however, was Horus, especially in the form of Harpokrates : terracotta statuettes of him, in a multitude of types, abound at every GraecoRoman site in Egypt, though there are few references to his worship in the written records, and he was rarely the principal deity to whom a temple was dedicated. He was essentially the god of the house.

The types of Sarapis on the sealings do not call for much remark: as noted above, they generally follow regular types. There was a tendency in the Roman period to develop a pantheistic form, begimning with the fusion of Zeus and Helios with Sarapis, and extending later to the inclusion of Ammon and


Poseidon: the head of Helios Sarapis (7) is an instance of this in the earlice stages, with which may be compared the Helios Ammon of the Oxyrhynchus lists. As has been remarked previously, the representation of a bust of Sarapis flanked by figures of the Dioscuri (13) is interesting, on account of its
correspondence with the reverse-type of a coin of Antoninus Pius, a name taking on the seal the place of the date on the coin ; and the group of Sarapis crowned by Isis (14) is also traceable to a coin-type. The association of the bust of Sarapis with an eagle, a ram, or a griffin can likewise be paralleled on coins; but the more complex groups, especially those in which the lion occurs (21 and 22), are exceptional, and are probably due to Gnostic influence.

Some Gnostic connexions are also traceable in the Horus-types, especially on Nos. 35 and 36, where the association with the gazelle in one case and the scorpion in the other are particularly noticeable. In nearly all examples a serpent appears, either in the field or held by Horus, which may also be

put down as a Gnostic symbol. The types which are marked by the position of the hand of the deity against his lips as representing Harpokrates are more distinctively Graeco-Egyptian, both in style and attributes, and can generally be paralleled from Alexamdrian coins, which show nothing corresponding to

the Horus-types. One or two of the forms of Harpokrates may be assignable to special localities-the Harpokrates on the lutus (41) is taken to represent

Harpokrates of Taua, and the Harpokrates on the androsphinx Harpokrates of Buto, while the figure on the ram carrying a scourge may be Harpokrates of Mendes; but, as these types were used on the Alexandrian coinage, they would be disseminated through Egypt, and cannot be taken as marking definitely a connexion between the sealings and the special centres of the worship of Harpokrates. The type of Harpokrates on the lotus reappears on the Oxyrhynchus signets. The bust of Hershef (45) is of a more distinctly local character, and is not, so far as known at present, a coin-type : in this case there is some probability that the signet from which the impression was taken belonged to an inhabitant of Herakleopolis Magna, the seat of this deity.

The only remaining examples amongst those classed as of GraecoEgyptian and Egyptian deities which offer points of interest are those of Anubis and Hermanubis (49 and 50), which stand in much the same relation as those of Horus and Harpokrates: the jackal-headed Anubis is the more


Egyptian form, and possibly is influenced by Gnostic ideas, while Hermanubis appears in a Greek type closely related to that of Hermes and similar to that of the Alexandrian coins.

There are comparatively few among these sealings which can be called distinctly Greek: of those which have been placed under this head, the two types of Athene (52 and 53) are very probably assignable to the influence of her worship at Oxyrhynchus, where she was identified with the local goddess Thoeris: this is the more likely as these types are very closely related to two which commonly appear on a class of leaden pieces of which large numbers have been found at Oxyrhynchus, and which almost certainly represent a local token-currency. The Tyche types (59 and 60) are probably taken from Alexandrian coins; and the types of Herakles, while not directly traceable to coins may perhaps have been suggested by the series of representations of the labours of Herakles issued from the Alexandrian mint under Antoninus Pius, unless they are due to the equation of Herakles with Hershef at Herakleopolis Magna. It may be noted that Athene, Tyche, and Herakles, as well as Apollo, are all to be found among the Oxyrhynchus signets. The most definitely Hellenic of all the sealings is really the group of Leda with the swan (61): which was, for some reason, a very popular subject in Egyptian art down to Coptic times.

The class of animal-forms does not provide much of interest. The hawkheaded crocodile of No. 6t is probably Soknopaios, the local form of the crocodile god Sebek worshipped at Soknopaiou Nesos (Dimêh) in the Fayum,

as he seems to have been represented in this shape. The comparative commonness of serpent-types-though both the human-headed serpent, the \(\delta \rho a \kappa\) оутómop of of Oxyrhynchus, and the uracus with disk or royal crown are frequently

found on Alexandrian coins-may be due to some extent to Gnosticism: in one case at any rate (72) a Gnostic influence is marked by the addition of a key. It is possible that No. 78 is intended as a rebus-the serpent with
the letters \(\mathrm{O} \rho \sigma\) representing the name, common in the Fayum during the Graeco-Roman period, of ' \(\mathrm{O} \rho \sigma \epsilon \nu o \hat{\nu} \phi \iota \varsigma\).

In class D there are some puzzling groups, which need further explanation. No 82-a figure of a man in a biga-is probably borrowed from the coin-type representing an emperor which was among the commonest on Alexandrian large bronze of the second century. The attitude of the reclining

figure on No. 83 suggests that it is Nilus-and in this case the figure riding towards him on a bull may be the genius of the inundation. The worn condition of the examples of Nos. 85 and 86 , as well as the rough work of the signets, makes it impracticable to say what was intended by the groups of three figures; and the same difficulties prevent the interpretation of the more complicated scenes on Nos. 84 and 88.

Some of the busts classed under E may be intended for portraits, or they may be of a generic nature, as were presumably the 'philosophers' who appeared on two Oxyrhynchus signets. But, if their origin may be looked for on coins, the female bust on No. 91 shows considerable similarity to that of Cleopatra VII on her copper coins, while the busts with Egyptian royal headdress of Nos. 92 and 93 resemble the types of Arsinoite nome-coins struck under Hadrian-the possible connexion with which is strengthened in the case of No. 93 by the addition under the bust of a crocodile, also a type of the coins of the same nome in the same reign.

Among the last group, the only signet calling for special note is No. 99, which is the most distinctly Gnostic of all, with the representation of a key flanked by two mystic words.

From the foregoing remarks, it will be seen that, in a large proportion of instances, the sealings show a close analogy to Alexandrian coin-types; the most noticeable exceptions being in the cases where Gnostic influence is traceable, especially in the group of representations of Horus. And, so far as it is possible to judge of the style of the signets, there is a certain distinction of treatment which is parallel to this division of the types. The figures drawn from Greek mythology, and also those of the Alexandrian triad-Sarapis, Isis, and Harpokrates-are ummistakeably Greek in style : pose and dress are alike derived from Greek tradition; and the designs which are not to be
found on Alexandrian coins are executed in a manner so similar to that of the coin-types that the seal-engravers might be regarded as workmen of the same school as the men employed in the mint of Alexandria. On the other hand, the influence of native Egyptian ideas in the execution of the figures of Horus is equally clear in every way: the difference is not simply due to the endeavour of the artist to give a purely Egyptian character to his representation of the god, as may be seen if the treatment of the bust with Egyptian royal headdress (No. 92), which, notwithstanding the subject, is Greek in effect, is contrasted with that of any of the busts of Horus (Nos. 25 to 28).

It is of course impossible to say where the seals were made, or even where they were used. The accumulation of the clay impressions at Karanis ouly marks the spot where the goods were unpacked: they may have been packed and sealed anywhere in the Nile valley. And the types are, for the most part, such as can hardly be definitely localised: the bust of Hershef (No. 45) would be most likely to be used by an inhabitant of Herakleopolis Magna, the figure of Athene (Nos. 52 and 533) by one of Oxyrhynchus, that of Soknopaios (No.64) by one of Soknopaion Nesos; but Sarapis or Horus, Helios or T'yche, a sphinx or a serpent, might be expected equally well in almost any district of Egypt. The Nile-mud of the sealings limits them to Egypt; but no closer definition is possible. And the signets themselves may have been made at Alexandria, or by local workmen in the country towns; but, except in one or two instances, there is nothing in style or subject to suggest any likelihood that they were imported into Egypt. It is fairly safe to say that they represent the kind of work executed for ordinary use in Egypt about the middle of the second century A.D.

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}

Note.-The illustrations are derived from photographs, which have been slightly enlarged and touched up for purposes of reproduction by Mr. F. Anderson after examination of the original sealings. I have deposited i set of negatives, showing examples of all the types described, with the Hellenic Society.

\section*{DETAILS OF THE OLYMPIAN ‘TREASURIES.}

In a preceding article (J.H.S. vol. xxv, pp. 294-319) the attempt was made to fix chronologically the order in which the Olympian 'treasuries' were founded, and conclusions were summarily presented in connexion with a general consideration of the origin and function of 'treasuries' at Olympia and elsewhere. Now it is necessary to test these conclusions by a detailed examination of the architectural remains found on the terrace at Olympia, and in so doing to pass in review the successively founded Olympian communal houses called treasuries, taking them in the order thus theoretically arrived at, i.e. XII, X, XI, VII, VI, V, IX, IV, II, III, and I. \({ }^{1}\)

The Gcloans' House, No. XII. \({ }^{2}\)-The foundations of this fabric were identified at the eastern verge of the terrace in 1877-78, in which year various parts of its superstructure came to light at the opposite corner of the Altis; but not till 1881-83 was this superstructure-entablature-stones of several kinds and fragments of terracotta (painted and unpainted) belonging to the treasury-chamber, as well as triglyphs, metopes, columns, and capitals belonging to the porch-completely recognised and convincingly distributed between the old treasury-chamber and the later porch. \({ }^{3}\) The stereobate of the Geloans' porch has disappeared, and its extant foundations are mere footings of broken stones. In contrast with these are the foundations of the old 'treasury'-chamber or cella behind, consisting of blocks of a somewhat

\footnotetext{
\({ }^{1}\) Practically all the available facts, together with the most various and valuable conclusions, not always easy to acknowledge adequately in detail, are derived from Olympia dic Ergebnisse der ron dem Deutschen Reich veranstalteten Ausgrobung (A. Asher and Co., Berlin, 1892-1897). The five Textbänder are referred to as Ol. Text i-v, the four volumes of plates as Ol. Pl. i-iv, and the Atlas as Ol. At. Of the plates and cuts in this truly monumental publication the freest use has been allowed and the kindness is hereby gratefully acknowledged.
\({ }^{2}\) See Fig. 1, and J.H.S. xxv, pp. 296 ff ., 303 f. and 308 f.
\({ }^{3}\) When, late in the fifth century A.D., the menace of Vandal piracy prompted the building of an Olympian fort or rather 'block-house'
}
(see Dr. Adler's account of it, Ol. Text i, p. 95), entablature-stones, triglyphs and metopes of poros were taken from the south porch of the Geloans' treasury and built into the east wall of this improvised stronghold. Later, for the completion of its south-west wall, the builders of Leo I completed their dismantlement of the poreh as well as of the older treasury-chamber behind it, and of the Megarians' treasury (XI) adjoining. Here were recovered further en-tablature-stones and also drums and capitals of poros belonging to the south porch aforesaid, and with them entablature-stones of a decidedly harder poros,-identical with that used in the foundations of the Old Geloans' treasurychamber, mixed up with broken bits of brilliantly-painted terracotta veneering.

coarse poros with petrified molluses. \({ }^{4}\) Of this same poros are the entablature-blocks belonging to the old Geloans' 'treasury,' and found in the west wall of Leo's fort. These are of three classes. I, with tops upslanting for the course of roof-tiles next to the eaves, an interior dressed face sunk to provide seatings for the ends of ascending rafters and horizontal beams, and an exterior dressed face offering two vertical bands of about equal height, the lower being slightly recessed so as to leave a narrow intervening soffit, while it ends downward with a more extensive soffit, inward-slanting after the fashion of eaves. \({ }^{5}\) Blocks of this class (I) formed the entire entablature along the northern and southern sides of the quadrilateral chamber, while blocks of the two following classes, II and III, formed the pedimental entablature along the eastern and western faces; but blocks of class II, shewing a front face exactly reproducing the bands and soffits of class I, unite with these last in completing what must be called the architrave of the treasury-chamber, although it has no frieze. Blocks of class II differ from those of class I in their tops, which are not upslanting but fit the square dressed tympanum-blocks above. Blocks of class III shew a front face reproducing only the upper band and soffit of I and II, and are dressed at the inside so as to receive in suitable channellings the sides of all the courses of roof-tiling, being otherwise so dressed and combined as to form a coping for the obtuse angles of the tympana. \({ }^{6}\)

Common peculiarities of these entablature-blocks, classed I, II, and III, and shewn in Fig. 2, are : (a) the same iron nails (measuring 5 millimetres) in positions corresponding to perforations in the fragments of a brilliantly painted \({ }^{7}\) terracotta scheme of veneering applied to them all on a consistent
\& See 1)r. Dïrpfeld's account, Ol. 'Text ii, p. 217.
\({ }^{5}\) lig. 2, bottom.
(i) By no means all the hocks of class I have been recovered; those that are missing may perhaps be accounted for by the broken bits jickerl up on the terrace close to the Geloans' foundations. Leo's engineers may have llung then down. If so they were doubtless carried off by nameless and undated village-builders, sime the Geloans' treasury is most easy of aceess from the old high-road still leading to Merakia. 'The north and south walls, to which these hooks (I) corresponded, measured \(13 \cdot 17\) metres each. The recovered blocks of class II measure 18 good metres, so that each of the two horizontal copings running under the tympana must have measured at least 9 metres. The foundations call for a width of \(11 \cdot 19\) metres. This discrepancy can he partially corrected by calculations based on the numerous recovered stones of the tympana. The heinht of each tympanum was 1.43 metre, the gradient was \(1: 7\), and therefore 10 metres is the length for the east and west sides or faces
of the quadrilateral chamber. Add 0.30 metre for the spreal of eateh of the caves, and the resulting 10.60 metres is uot sumprisingly at variance with the 11 -19 metres of the Laygplase in Ol. At. In fact a discrepaticy of 0.59 metre hetween superstructure and foundations in so archatie a buidding can hardly be deemed discreditable or disconcerting. By these calenlations Dr. Dörpfeld has banished the last possible doubt as to assigning blocks I and III to the pedimental entablatures of the Geloans' treasury-chamber, and these, being thus assigned, carry with them, as certainly belonging to the sides of the same quadrilateral building, the blocks of class II, although so few of them have been recovered that their total length falls short of that of the corresponding foundations liy upwards of 11 metres.

7 The astonishing brilliancy and persistence, after more than two and a half thousand years, of the matt-glimmering colours on these and other archaic terracottas used for architectural. decorationsin Greece, Magna Graccia, and Sicily, derives from skill in their manufacture as well as from skill in the application of the colours.
plan similar to other schemes of the kind peculiar to Sicily and Magna Graecia: \({ }^{8}\) (b) the same colour and consistency shewn (in that constituent part of the clay which had been only once and moderately fired) throughout the terracotta vencering common to all three classes of blocks as well as in that of the connice which decorated them all.

Invented no doubt before stone had supplanted wood, and developed while still imperfect tools made the smooth dressing of stone a formidable undertaking, the fashion of sheathings or veneerings was carried to a great pitch of perfection in far eastern countries, and long survived in Sicily and Magna Graecia. Indeed, as applied to the Geloans' Olympian house and to the Selinuntine temple ' C ,' this system has its sound practical justification. It probably protects the top of a fabric,-parts exposed to the weather,-better

In their manufacture these ancient clays were not-when compared with undecorated specimens of the same period, or with modern terracottas decorated and undecorated-subjected to a high degree of temperature. But permanency requires great heat which involves loss of brilliancy, and so the facts are disconcerting. This manufacturer's puzzle is, however, solved by noting that all these archaic terracottas were composed of two ingredients : (a) local clay of varying colours,-for the Geloans' treasury and at Gela, of a pronounced ruddy hue (this ruddy Geloan clay suggests manufacture at Gela and subsequent importation) ; of a pinkish colour for the:, Megrians' treasury (XI) ; of a yellowish-gray for the Olympian Heraeum and Council-House, - and (b) an invariable ingredient of black metal, or, to be more specific, an admixture of bright black grits or grains (measuring from 2 to 4 millimetres). Chemical analysis by a manufacturing expert of this ingredient (common to all archaic terracottas), made at Dr. Wiegand's request, reveals in the black metal of terracotta from the Geloans' treasury only 0.03 more of silicic acid than is contained in 'scharfgebrannter Klinkerthon' i.c. twice-burnt clay having in its secoud firing been subjected to a maximum heat. Plentiful admixture of such twice-burnt clay thus plays its part in producing brilliancy and persistency of colouring on all archaic terracottas by making it possible to dispense (when the two ingredients, (a) and (b), have been mixed together) with the maximum heat in firing which would otherwise have been quite indispensable. (See pp. 183 f. in Dr. Wiegand's Porosarchitcktur der Ahropolis au Athen, Th. G. Fischer [Kassel und Leipzig, 1904], which will be referred to below as \(W\) icgand.) Of equal importance in producing the results obtained was the skilful method used, before the clay was burned, in
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applying the three colours, and in finishing the surface. The mixture of black metal and unburnt local clay was first modelled, then its surface was washed over with a very thin slip or engobe of fine buff clay which formed a selfcoloured background of delicate ycllow, instead of the decoratively hopeless motley of the unwashed metal. Then came the etching (or estamping) of the pattern, which finally was painted in with the two remaining colours, red and black. All this done, and the model still having something like the leathery consistency of sun-dried clay, a spatula was deftly plied over all its surfaces which were smoothed, and took on their peculiarly subdued and glimmering polish. (On all these processes, see Dr. Graef in 01. Text ii, pp. 189 f.)
\({ }^{8}\) See M. A. Choisy's Histoire de l'Archi. tecture, i, pp. 285 ff ., where, by a slip of the pen, an Olympian treasury of the Himeracens is mentioned, the reference being doubtless to the treasury of the Sclinuntines. Fragments of terracotta veneering which may have belonged to this treasury (IX) are discussed by Dr. Graef (Ol. Text ii, pp. 201 f.) and assigned doubtfully to treasury IV. Certainly the recovered fragments of terracotta veneering belonging to temple ' C ' at Selinus (see M. Choisy's account) suggest the probable employment of a similar decoration at Olympia by the Selinuntines in their treasury (IX), and this idea is confirmet by Dr. Graef's observation (Ol. Text ii, p. 189) that terracottas painted in three colours persisted in Sicily long after they had been superseded in Greece by painted marble or stuccoed poros. This being granted, treasury IX, though none of the earliest, may well have been vencered. It should be remembered that terracotta veneering was superseded very early in Grecce proper by the application of filmy stucco, whereas the use of terracotta cornices lasted longer.
than any stucco such as was used in conjunction with it (on less exposed parts) by the Old Geloan builders at Olympia. \({ }^{9}\) Turning now to Figure 2, note the recessed band along the bottom of I and II, upon which a shadow from the veneered projection above is thrown. On this less exposed band and the slightly upslanting soffit below it stucco was applied. Although nothing is known of the Geloan fabric between them and the foundations in situ, this band and soffit, since they run completely around the building, may conveniently be likened to an architrave. 'This 'architrave' of poros, be it noted, was carefully and smoothly prepared with a view to sightliness when stuccoed, whereas the unstuccoed surfaces above it were left quite in the rough, as about to be masked in a sheath of veneering. On these unfinished surfaces was applied the terracotta sheathing brilliantly patterned in red, black and buff \({ }^{10}\) as follows: (A), a maeander or fret running horizontally (and therefore not shewn in Figure 2 except in profile) between two containing astragal mouldings running also horizontally (a) and (b), striped both of them in the three colours, (a) being spirally and (b) vertically striped; (B), a pattern of spirals guilloched, or entrailed, into a central enrichment of which are introduced,--through regularly recurring perforations,-the fastening nailheads. \({ }^{11}\) This guilloche covers a broad vertical band shewn along the top of I, II, and III, \({ }^{12}\) and is contained by two astragal mouldings (c) and (d) striped in the three colours. \({ }^{13}\)

Turning now to the surmounting terracotta cornice nailed down along the tops of the veneered blocks I, II, III, note its band (C), and Egyptian cavetto, (D), with the astragal (e) intervening, \({ }^{14}\) and surmounted by (E), a narrow
\({ }^{9}\) Its value as a protection, compared with the colours applied on the finished stone, ordinarily in combination with the preliminary layer of fine stucco, remains still a matter of doubt. Probably the veneering afforded the greater protection. Dr. Graef (Ol. Text ii, pp .183 f .) indicates that the stucco surfaces were less weathered where red had been applied than where blue had been used.
\({ }^{10}\) Coloured plates are accessible not only in Ol. Pl. ii, Pl. exvii, but also in Baumeister's Denkmaeler, Pl. xlv, and in Meyer's Konver. sationslexicon, s.v. Ornamente, Fig. 23, Pl. I.
\({ }^{11}\) Almost exactly this guilloche is shewn on the veneering of temple ' \(C\) ' at Selinus (see Baumeister, l. l.). See also Dr. Graef (0l. Text ii, pp. 188 and 200 , Fig. 20) on the oldest specimen of veneering found at Olympia (but not assignable to any known fabric), which shews a very similar but less enriched guilloche. As for the fastening uails, note that this combination of (a) (A) (b) (c) (B) (d),-a narrow horizonal fret (A) underhanging a vertical guilloche ( \(B\) ) each running between two astragal mouldings (a) and (b), and (c) and (d), is all of the terracotta sheathing that shewed-a third and not visible surface, however, remained, and this was undecorated. Through
this was driven vertically into the poros blocks below a row of nails which made doubly secure the whole of the veneering,-attached already by nails driven horizontally through perforations in the vertical guilloched band. To this top veneering surface was applied, so as to project backward beyond it, another blind (undecorated) surface, -the horizontal foot of the terracotta cornice. Where this backwardspreading foot stretched clear of the top veneering surface underneath, a row of extra long nails was driven vertically into I, II, and III (see Fig. 2).
\({ }^{12}\) On III this vertical guilloche slanted upwards to form the obtuse angle of the pediment.
\({ }^{13}\) The lower astragal, (c), running below the guilloche, i.c. above and alongside of (b), exactly reproduces (a), except that its stripes are wider.
\({ }^{14}\) Cornices of this profile, with the Egyptian cavetto, thongh not further exemplified at Olympia, have been found at Gela and Syracuse, aud one such is in the Palermo museum (see Baumeister, l. l.). Most Olympian cornices, however, shew instead of the cavetto between two bands a cyma reversa, with or without a band below, surmounted along the


Fig 2.-The Old Gelohns' House (Xil) Venebiel Enthblature-blocks, Cornice and Roof-tiling.
fretted band contained at the top by (f), an astragal moulding striped ana proportioned exactly like (a). Along the eaves, the band (C) with projecting watersponts releases the rainfall, and masks the untward edge of the lowest course of roof tiles. Here, being important, it is variegated not only by its striking pattern of reversed palmettes, but also by its waterspouts-a row of anemone-like discs painted as rosettes with red (mottled clay) campanulashaped water conduits debouching at the centre. Below runs (d) and above (e). When we come to the pediment, where waterspouts are of course inadmissible, this band, losing with them its relative importance, carries instead of inverted palmettes a more monotonous and formal lozenged pattern. \({ }^{15}\)

Such were the entablature and cornice, and such was the roof \({ }^{16}\) of the old original Geloans' treasury-chamber, which measured 10.85 (11.16) by 13.17 metres. Little or nothing else about the fabric above its foundations is known, \({ }^{17}\) except that Pausanias saw the inscription on it, and did not see the statues once housed within its walls. \({ }^{18}\) What manner of entrance it had, what was the purpose of the quadrangular holes with which its limestone floor is honeycombed (see Fig. 1), whether it originally had a portico or porticoes on the east and west, what manner of walls supported its entablature, all this is quite unknown. Shewing no triglyph or other frieze, the Geloans' superstructure cannot be classed as Doric. If, however, its Dorism could be asserted because the sons of its builders' grandsons added a Doric porch, then this entablature, being what Palladians used to term, in discoursing of the Etruscan order, an 'architrave cornice,' might figure as a missing link, the friezeless Doric, corresponding to the friezeless Tuscan order. \({ }^{19}\)
eaves by a row of alternate waterspouts and antefixes.
\({ }^{15}\) See O1. Text ii, Fig. 8, p. 193, for evidence that a chequered lattern, of simpler decorative effect than these lozenges, may have supplanted the reversed palmettes on band (C) along the northem side, where it presumably shewed watersponts
\({ }^{16}\) 'The Geloan scheme of roof-tiling has been reconstituted (Figure 2 top) : along the ridgepole were laid large and all but cylindrical tiles, serving as imbrices to the topmost rows, -one on either slant,-alike of tegulue and imbrices. These enormous ridge-pole tiles were joined each to each by three under and overlapping rings or vertical reedings, embossed ; and each of them raised skywards an enormous palmette spreading lengthwise of the rilge-pole. Viewed from many points on the Altis during the century before the south porch wats added, the effect of this serried row of enormous flower-like palmettes must alnost have suggested, -but for different colours here,-a dress-parade of marshalled peacocks. The ordinary roof-tiles (iegnulae) were not convex but flat and quad. rangular (neasly 2 feet square). Except for
their under- and overlapping tops and bottoms, these were bedded in clay, and the tops of the uppermost courses on either slant met at an obtuse angle on the ridge-pole, under cover of its mammoth imbrices. The contiguous sides of all the rows of these tegulae were modellel with up- and outward-curving quadrant-shaped edges, and each neighbouring pair of these edges formed part of a semi-cireular rib or ridge (rumning fron eaves to ridge-pole) down which rode semi-cylindrical rib-tiles (imbrices). Semi-circular arched voids shewn on either side in the lower edges of the mammoth ridge-poleimbrices admitted the insertion of the upper ends of the two top rows, one on either slant, of these smaller rib- or rafter-imbrices.
\({ }^{17}\) Sce Ol. Text ii, p. 44, where mention occurs. of a shaft with only sixteen flutings found in the cast wall of Leo's fort. This (shewn in Fig. 3) belonged, Dr. Dürpfeld suggests, either to the Council-House or to the Old Geloans' treasury.
\({ }^{18}\) J.H.S. vol. xxv, p. 308, and Pausanias VI, xix, end.
\({ }^{15}\) See M. A. Choisy, op. laud. i, p. 320.

But with no means of discovering the module, there can be little point in classing this ancient ark of the Geloans as Doric. \({ }^{20}\)


Fig. 3.-Archaic Shaft (Sixteen Flutings) and Capital found in the East Wall of Lea's Fonit.

The Gcloans' South Porch.-When, however, in the course of the sixth century, a long row of treasuries had sprung up on the terrace, all of them in the Doric style, the stamp of architectural Dorism \({ }^{21}\) was set also upon the

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20 One final archaism should be noted: neither the foundations nor the recovered entablature stones exhibit marked traces of clamps or dowellings.
\({ }^{21}\) As indicated on p. 46 above, stones constituting a complete Doric entablature with druns of columns appertaining were found in Leo's wall
}
along with the remains of the older chamber. The triglyphs of this entablature measure 0.513 by 0.752 metre, its metopes are 0.752 metre square, and the drums shew twenty flutings. At the top of the shaft not far from its juncture with the capital appear four horizontal flutings or incisions, and the shaft shews pronounced

Geloans' ancient house by the addition on the south of a 1)oric porch ; \({ }^{22}\) thus too, its entrance was apparently shifted from the east to the sonth side \({ }^{23}\) and conformed to that of the later-built houses west of it. Very practical considerations sufficed in those early days to dictate this addition,- the need of some sheltered rendczoous for Geloan worshippers, numerous at the time of the chariot victory of Pantares. \({ }^{24}\) After the era of treasury foundations this need fell into abeyance,-when, the opisthodomus of the great temple of Zeus and various porticoes having been built, there was abundant accommodation in more central parts of the Altis for all worshippers indiscriminately. But the
entasis. The beautiful echinus of the capitals shews an overhanging parabolic curve, and striking resemblance in profile to one found at Terra Nova (Gela). See Figure 4, where the proportionately high architrave is also shewn, and also its un'rumnelled regulae. Note (Hicgend, p. 46, Fig. 64) that the sides of the Hecatompedon, dating from \(c a .550\) r.c., also had under its eaves regulae without guttae (trumels), those under the pediments being trumnelled. The Temple at Assos, the Olympian Council-House and Selinumtines' treasury (IX) also (see Ol. Text ii, p. 49) omitted trunuels on the regulae under the eaves. Above the square metopes of the Geloans' porch, as also above its triglyphs, are the usual mutules, but these again are untrumelled. For Athenian fragments of a cornice shewing mutules without trumels, see Wiegand, p. 177, Fig. 179 (a) and (b). The area of the Young Geloans' triglyph is twothirds of that of the metope. For marks of the clampings used, see the corner metope (Fig. 4). Two sorts were used (1) the \(\square-\) shaped, probably of metal, and (2) those shaped like the head of a rudimentary double-axe, probably of wood.

2 This whole Doric superstructure (see note above) belongs certainly to the poreh-foundations in situ (see Fig. 1), as Dr. Dürpfeld has demonstrated: supposing it had ten triglyphs measuring as above, its south frontage works out at \(13 \cdot 17\) metres. Six of the seven columns and capitals found are thus bestowed,-with the intercolumniations ( 2.53 m .) suggested by their diameter,- along the south face or front. The seventh and a missing eighth stand behind the first and sixth (the comer) columns of the front row and in front of the two half columus and capitals (see Fig. 4), applied respectively to the south-east and south-west corners of the old treasury chamber. The southward extent of the foundations on the east and west allows just room for the footing of two columns and a lalf with two intercolumniations; lence the demonstration is complete. The more so becanse,
among the poros-fragments of the poreh, are two half-capitals (see Fig. 4) applied by the young Geloan builders to the two southern comers above mentioned. All the other seven capitals recovered had indeed been roughly halved by Leo's builders for easier transportation and handier use ; but these two, far more carefully dressed at the back, were ummistakably washed with the regular stucco of Hellenic builders not in front ouly but partly also at the back,-one of them at the right and the other at the loft hand end (see Fig. 4). This proves that they were the half-columms of half capitals slightly projecting respectively beyond the east and west walls of the original chamber.
\({ }^{23}\) See J.H.S. xxy, pp. 297 f., 299, note 10, 302, note 19, 306, and 309. For the existence of any sort of entrance there is unfortunately no proof or evidence whatsoever.
\({ }^{24}\) The date, not far from 500 b.c., suggested for this porch (J.D.S. xxv, p. 297 f.) needs no confirmation ly a supposed new departure in the footing of the porch foundations. Here is undoubtedly a substratum of broken field stones entirely dispensed with by the Old Geloan chamber and by all the older treasuries adjacent (except No. X, the Metapontines' house), but used by the five westernmost and latest built ; but see below, notes 28,72 , and 79 . The subsoil in front of the Old Geloans' chamber was evidently considered unstable and the architects very sensibly had recourse to footings which were not needed, and therefore not used, by the builders of the chamber. The Younc Geloan foundation courses this bedded are, however, quite out of joint with those of the older chamber, and the three contemporaneonsly built steps surrouding porch and chamber alike are hopelessly out of joint with the floor of the chamber though not with that of the poreh; on the west the chamber floor lies wholly below the top step outside. This is good evidence confirming the fact otherwise established that the Young Geloans' porch was a later addition.


Fig, 4.-The Young Geloans' Poreh.

Young Geloans could not foresce what was coming, and were at pains to make their porch long enough,--witness the overlapping of their half columns applied to the two southem corners of the old chamber or cella (see note 22, above, and Fig.4),-and deep enough to make sure of elbow room (see Fig. 1 and note 21 , above). The six columns of this porch were surmounted not by a pediment, but by what was almost a 'lean-to' roof; one so nearly flat that it scarcely could be seen even if you stood on the terrace in front. \({ }^{25}\) This roof abutted at right angles upon the lowest and undecorated band of the Old Geloans' entablature. 'Thus the veneered surfaces of the old chamber with the ornamental cornice above them and the ridge-pole palmettes still higher, on the sky-line, fairly dominated this later porch. Evidently there was no desire on the Young Geloans' part to hide the brilliant handiwork of their pious forefathers.

The Metapontines' House, No. \(X^{2} .^{26}\) - It is probable \({ }^{27}\) that the Metapontines' treasury was built next after the old Geloans' treasury-chamber, and long before the young Geloans' porch. Its cella measured 830 by about \(9 \cdot 60\) metres, and its vestibule was upwards of 2 metres deep. For its foundations see Fig. 1. Careful scrutiny of these, though it raises difficulties, favours the idea that X was built before XI, and next after XII. \({ }^{28}\) Near them, and no doubt originally built into them, were mearthed, in fragments, triglyphs and metopes of a friable and marly limestone, \({ }^{29}\) the attentive study of which reveals several experimental variations through which the evolution of the Doric style at Olympia
\({ }^{2} 5\) The conclusive evidence of this derives entirely from Dr. Dorpfeld's discovery, Ol. Text \(\mathrm{i}, \mathrm{p}, 54\), on one of the recovered entablaturestones of the Old Geloans' chanber, class I, of a mank of the abutting porch roof with the inconsiderable slant of \(1: 9\).
sh.H.S. xxv, pp. 294 ff, with n. 3, 300 , 312 , with \(n .45\) and 317.
\({ }^{27}\) J.H.S. xxv, p. 298. See also U. von Wilamowitz-Moellendorft's Herakles (1895), i, 19. 10 f. and n. 22.
\({ }^{24}\) Unlike the five nearest treasuries, including the Old Geloans' chamber, but like the five treasuries furthest off and the Young Geloans' porch (see above, note 24 imit.), the foundation walls of X are bedded on rough stones laid in clay. Is X on this account of even date with these last? No, for the use of footings was not a question of date hut of varying stability in the subsoil of the Olympian terrace. The areliitects concerned one and all determined for or against footings in the most sensible and practical mamer, though not (cf. the case of VII and V) with invariably fortunate results. Experience shewed that the subsoil at the back of the terrace and east of VIII was solid, but that footings were everywhere needed to the west of it (see above, note 24 , and below, notes 72
and 79 init.). In size the boulder-stones under the foundations of X far exceed all others on the site, excepting those on which the Heraenm walls were bedded (Ol. Text ii, pp. 50 and 28). As in the case of the Heratum and of treasuries I and II (III and \(V\) heing out of the count for lack of evidence) and IV having footings under all its walls) these unfashioned footings of X are entirely absent at the north end, and gradually shew themselves toward the south end, where they reach to a considerable depth. They contain sporadic fragments of sandstone and poros. Above them runs the topping off course ( \(\epsilon \dot{v} \theta u v \tau \eta\) pra) of dressed blocks, which, being of rathercoarse Olympian poros, contain many shells. Neither these nor any other blocks recovered shew the least traces of any use of elamps, a note which they have in common with the stones of the Heraeum and of the Old Geloans' chamber, but the rough inner dressing of these courses shews that they were laid below the interior floorlevel of the cella.
\({ }^{29}\) Having served origimally as part of X , these fragments may have been built into the foundations in the course of latter-day repairs: they may be stones rejected by the original builders. In either case their study is of the greatest importance.
had to pass before reaching the harmonious regularity of Libon's great temple. One of these (see Fig. 5)-a metope fragment-shows at the back the profile of a cornice with a soffit of only 0.124 metre. \({ }^{30}\) With this stonemason's blunder is to be taken into account the startling experiment (also shewn in Fig. 5) on the frieze of the Metapontines. There, entirely replacing the abacus and the taenia of the developed Doric frieze, is shewn, rumning along the top alike of metopes and triglyphs, a rudimentary cornice (suggestive of the Old Geloans' veneered soffit, shewn just above their apology for an architrave), the total projection of which is not quite half 0.124 metre, -that of


Fig. 5.-Fragments and Restohations of the Metayontines' Fiieze.
the eccentrically dressed fragment just discussed. Made here in an extreme form, this experiment was repeated by the Sicyonians in a much reduced and restrained form, and so successfully that it influenced the builders of the

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30 Begum apparently as a cornice by a muddleheaded workman, this block was presumably afterwards taken in hand for a metope ; but an odd point is that 0.124 metre should have been deemed by any one, even momentarily, to be the right depth for the soffit of a cornice. Possibly there was confusion between the notion of a cornice strictly so-called and that cecentric and experimental cornice projection shewn along the
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top of the triglyphs and metopes in X . But see Ol. Pl. i, Plate xxxy for details of a cornice, possibly belonging to one of the treasuries, the total 1 rojection of whose soflit is 0.106 metre ; and note that just such a comice would have suited a fabrie erowded in close to an older one, as was the Selinuntines treasury (J.H.S. xxv, pp. 294 and 298), No. IN.

Parthenon. \({ }^{31}\) Another sign of the Huid stage of archaic Olympian Doric, when the Metapontines built what was the earliest Doric entablature of stone at Olympia, shews in the curves of the glyphs of this same frieze. \({ }^{32}\) Data for determining the intercolumniations and the number of columns \({ }^{32 \mathrm{a}}\) are entirely lacking, as are also discoveries upon which to base any theories as to its decoration with terracotta or otherwise.

The Megarians' House, No. XI. \({ }^{33}\) —Of the Megarians' house nothing remains on the terrace except the foundations \({ }^{3+}\) and portions of the cella walls (see Fig. 1) from which to gather any information ; \({ }^{35}\) but a discovery in the south-western corner of the Altis has made all the difference, transforming these foundations of the north-eastern corner into those of one of the best-known fabrics of Greek antiquity. At the southern end of the west wall of Leo's fort were found (a) stones from the stylobate, (b) drums and capitals, (c) blocks from the architrave, notably the central one that stretched across the void between the two columns in antis bearing, in characters of the Hellenistic age, the inscription MEГ[AP]E \(\Omega \mathrm{N},(d)\) triglyphs and metopes for the frieze, \({ }^{36}(e)\) portions of the
\({ }^{31}\) See J.H.S. xxv, p. 299, and the account of the Sicyonians' honse, p. 82 below. Although the Sicyonians used no cornice, but confined themselves to a simple astragal moulding, they nevertheless preserved the idea of a sightly and fair-sized detail, which should serve to give a visible continuity to the frieze, too much broken up otherwise by the ingeniously contrived proportions of their abaci metopes and triglyphs (see n. 121 below). Reflect that the Metapon. tines' house, since the old Geloans' treasurychamber was not Doric, while the characteristically Doric features of the Heraeum were presumably in wood, was the carlicst Doric fabric at Olympia made of stone, and the overdoing of this experiment with its frieze will explain itself.
\({ }^{32}\) Their tops shew something hardly distinguishable from the roundest of 'poirted,' or the most pointed of round arches (see Fig. 5, and note the narrowing of the aperture subtended by the curve).
\(32_{a}\) There were almost certainly fewer than four. Dr. Dörpfeld hesitatingly suggests two, required for a templum in antis. This involves three triglyphs on the frieze above the void between the columns. Three columns, but for the awkwardness of the approach involved, would answer the dimensions best (Ol. Text ii, p. 50). The Olympian Council-House certainly had three columns in antis, and for an archaic Athenian building ' 13 ' in Doric style with three columns in antis, see Wiegand, pり, 155 to 162. Between the Olympian Council-House (its older and northem wing that is) and the Metapontines' house there camot be much difference as
to date ; But Dr. Wiegand's fabric ' B ' was apparently built considerably later even than the latter. The awkwardness of three columns in antis might be regarded as a final proof of the archaic and experimental character of the Doric of the Metapontine treasury builders at Olympia.
\({ }_{33}\) J.H.S. xxv, pp. 294 ff., 298 f., 302 f., and 306 f .
\({ }^{34}\) XII and X are not far from equilateral, but XI, lying between, is roughly twice as long as it is broad ( 6.80 by 12.29 metres), III being the only one more nearly of these proportions. In its smaller dimension, XI is less by a third than X, and less than XII by two-fifths, whereas \(X, X I\), and XII are practically of the same length. These facts support the view that XI was founded after XII and X, having its breadth determined by the available space remaining (J.H.S.xxv, pp. 298f.). Differences of level doubtless located it nearer to X (within 1.60 metres) than to XII (within 3.90 metres). Note that the foundations of XI, though carelessly laid as regards the walls above and without footings, were strengthened with care at the two southern corners.
\({ }^{35}\) For the semi-detached foundations of an altar adjacent see J.H.S. xxv, pp. 306 f.; cf. also Dr. Dürpfeld in Ol. Text ii, pp. 41 and 51, and P. 78 below.
\({ }^{36}\) Each component block consisted of a metope and its adjacent triglyph. 'Ihis same combination occurs sporadically (Ol. Text ii, p. 7) in Libon's temple, and the limestone frieze blocks on the sides of the Athenian Hecatompedon were thus combined (Wiegand,
cornices both horizontal and upslanting, \((f)\) tiles from the roof, and, last but not least important, remains of five sculptured blocks. These last filled the


Fig. 6.-Restored Front of yhe Megamans' House.
tympanum and, when closely scrutinised, \({ }^{37}\) are found to represent in archaic
p. 12, and see 1. 148 f . for the same fact regarding fabric ' A '- the most archaic of the minor buildings considered by Dr. Wiegand). These facts indicate such combinations as arehaic and as by \(n o\) means confined to diminutive buildings, and go far to raise again the question whether the Doric triglyph can lave the origin assigned to it by Vitruvius (IV,

2, 2). Were triglyphs really in origin masks for the ends of horizontal beams? As Dr. Wiegand pertinently observes (p. 60), the whole question of the prevalence of all-wooden construction during the sixth century B.c. requires detailed investigation. But whence are the necessary facts to be derived ?
\({ }_{37}\) The total length of these fragments fitted
style the battle of the gods and giants, mentioned by Pausanias as adorning the pediment of the Megarians' treasury. \({ }^{38}\) Owing to a split in one of the recovered drums, \({ }^{39}\) the height of the columns can only be approximately fixed at 3.50 metres; but they certainly shew (see Fig. 6) no traces of entasis. \({ }^{40}\) Although no stone of either anta has been recovered, the restoration as a temple in antis is quite assured. Neither architrave, nor frieze, though both are shewn conspicuously together below the pediment (see Fig. 7), appears along either of the sides, \({ }^{41}\) an additional proof, if one were needed, that the Metapontines' adjacent house was already standing to mask the western side of XI when the Megarians built it. \({ }^{42}\) At the two south corners appeared, however, two incipient metopes running for a short distance along each one of the sides, and suggesting an unseen continuation of the frieze, the absence of which could only be detected from very few points of view. \({ }^{43}\) Another experimental singularity at the corners of the entablature is apparent in Fig. 7,-the ingenious complication of junctures for the stones meeting at the corners, so contrived as to avoid their all coming together diagonally on the same vertical plane. \({ }^{44}\)

The same experimental economy of labour, which dispensed with both architrave and frieze along the sides where their absence could escape obvious detection, shews also in the dressing of the Megarians' column-shafts (see Figg. 6 f.). Roughly dressed for the incision of twenty vertical flutings, they shew
together tallies with what the foundations of XI require (see Ol. Text iii, pp. 5 ff., where Dr. Treu gives an account of them).


\({ }^{39}\) Proved by the cumulative evidence of numerous tallying measurements and agreements otherwise, the appurtenance of the remains (a)(e), to the Megarians' foundation is perhaps most strikingly evidenced to the casual eye by the fact that there are recovered drums fitting exactly weathered outlines still visible (in the eighties) on the stylobate in situ (Fig. 7).
to A fact disconcerting to the theory that excessive entasis must be regarded as the note of excessive arehaism (see below, page 81).
\({ }^{41}\) Dr. Wiegand (p. 39) cites this treasury as resembling the Hecatompedon in having a frieze, but no architrave, along its sides. Plainly his reference is to the Sicyonians' treasury (I), not to XI. See below, p. 76.
\({ }^{12}\) An interval of ouly 1 '60 metres separated XI from X. The Sicyonians' house, on the contrary, where the frieze but not the architrave was continued along the sides (see the note preceding) was masked on the wost by no building whatever. The architrave was apparently not deemed so essential for the eye as the frieze and therefore dispensed with in I as in XI.
\({ }^{43}\) This illusion was enhanced by ending the incipient side metope downwards with half a regula and three trumels ; nor was it presumably greatly interfered with by the entire absence of any corresponding half mutule under the corona above. See Fig. 7, where is also shewn, upside down, one of the two comer mutules with the corona appertaining. Notice the rectangular termination of the front mutule, and the sharp diagonal ending of the solfit from which it depends.
\({ }^{44}\) This triumph of delicate adjustment is masked on the outside, but shews from within. Note also the \(\vdash-\)-shaped clamps of the entablature, which also appear elsewhere throughout the superstructure. No clamps or dowellings were used in the foundations. Horizontal commissures shew no rabettings, but smooth faces; vertical commissures are so rabetted as to leave broad bands on all edges. All commissures are more than occasionally covered with the same stucco used for the outside faces, -a sure sign that each stone was individually stuccoed before it was put into place. Incisions made for the claws of lifting-irons occur in many stones, others were apparently handled with levers and inclined planes. The prevailing poros is frequently patched with marly limestone, many trumels being of that material and patched in with lead.

Fige. 7.-Dmpails of the Megarianh' Houshe.
only the eleven visible from the front; \({ }^{45}\) and, instead of the nine remaining, nine flat unfluted vertical faces such as would belong to a polygon. Moreover the three parallel incisions or horizontal flutings, at the top of the shafts (see Fig. 6) near the capitals, extend also only half-way round so as to shew from the front. The capitals themselves were dealt with more 'sincerely'; the curve of the echinus, which,-as is the case of Libon's temple and of the Metapontines' house,-is parabolic not elliptical, shews above four annulets ending each capital downwards. The abaci were presumably of the more extensive archaic type. Neither capitals nor metopes reveal traces of colour. \({ }^{46}\) The surmounting cornice of terracotta painted with palmettes, and moulded into an archaic profile, \({ }^{47}\)-a lower flat band topped by a convex curve that suggests the cyma reversa of later days,-was confined to the pediment, \({ }^{48}\) and quite
\({ }^{45}\) See Wicgand (p. 174 and Fig. 73 ), for a discussion of a Doric capital of yellow poros that shews only nine flutings. Dr. Wiegand intimates that it must have stood against a wall. Thus it would have formed a startlingly 'rococo' feature in any conceivable archaic fabric of Doric style; but does not this Olympian analogy go far towards invalidating Dr. Wiegand's obiter dictum?
\({ }^{46}\) Plain marks of a dark blue encaustic colour shew on the triglyphs, regulae, mutules, and all trunnels. Traces of red have been detected on the upper members of the architrave, on a narrow horizontal band below, and on the interspaces between the mutules as well as on the 'taenia' or narrow horizontal band just above the regulae. These brilliant colours were also applied to the pedimental sculptures. Dr. Graef's plate (number xliv in Baumeister's Denkmaeler, where it figures as the 'Corner of a Doric temple in antis' in Dr. Borrmann's article on Polychromy ) represents the Megarians' Olympian house with unimportant variations as follows: no suggestion of the pedimental sculptures is given, the capital of the anta is purely hypothetical in profile and decoration, aud from the side must be entirely expunged the whole frieze with triglyphs, metopes, mutules, regulae, trunnels and all their appurtenances, while a half metope and trunnelled regula must be substituted at the corner. Dr. Graef has well given the flat terracotta band masking the corona of the Megarian sides. It was painted with a fret and surmounted with terracotta palmettes as antefixes. These oceurred at intervals, one for each downslanting ridge of imbrices ( \(\kappa \alpha \lambda v \pi \tau \hat{\eta} \rho \epsilon s\) ). The intervening tegulae abutted on this plain fretted band, which had no waterspouts except at the corners. There, reproduced by Dr. Gracf as well as the scale allows, were remarkable lion's-head waterspouts. Masking laterally the beautifully
profiled and decorated terracotta mouldings applied to the upslanting pedimental cornice, whose acroterion was a shicld taken from the Corinthians in some dateless encounter (see Pausanias VI xix 13 and J.H.S. xxv, p. 303),these wonderful lions shew two crescent-shaped ears upstanding among the flame-like waves of a mane so radiating from the face as a centre that it resembles an animated palmette. This truculent replication of the palmette antefixes and the palmette pattern on the pedimental cornice, being itself conventional, is effectively blended with the conventional treatment of the hair about the lips. Here the colouring is dark blue, and produces a theilling impression of fierceness. For a most elaborate restoration in colours, see Ol. Pl. ii, Pl. exix, which should be carefully compared with Fig. 9 in Ol. Text iii, p. 13, where Dr. 'Treu figures it uncoloured and unrestored. This lion shews all the elements that were finally blended and glorified in the finest marble waterspouts of Libon's great temple. Perhaps even the lion's head still visible on the north-eastern corner of the Parthenon may be called its lineal descendant. The closest parallel to it, however, derives from Sicilian Himera, and may be seen in the Palermo Museum.
\({ }^{47}\) Nothing of this could be shewn in Fig. 6. For the preparation and painting of this cornice, see above, note 7. The native clay used by the Megarians was coarse. They did not, like the Old Geloans, fasten their cornice down with nails, but used a perforation 0.05 metre in diameter which tunnels through all the recovered pieces. Some sort of reed or rod was apparently inserted here and the cornice was by that means made secure. Just how this was done is not plain.

48 The small scale of the pediment, as shewn in Figures 6 and 7, has involved the entire omission of this palmette pattern; but it
outshone the plain fretted band running along the sides in continuation of the lower member of the pedimental profile. Indeed this pedimental cornice fulfilled for the Megarians just what the Old Geloans aimed at with their Egyptian cavetto, only the Megarians, being here as elsewhere of a frugal mind, confined this splendour to the place where it would make the finest show, and the resulting total effect more than justified their parsimony. Their example was followed in this particular by the builders of the Parthenon, but not by Libon in ornamenting the great temple of Zeus, which, in this decorative \({ }^{49}\) detail, aimed at the archaic effect dear to the Old Geloans. The whole scheme of the ceiling of the Megarians' vestibule or pronaos has been reconstituted in connexion with a series of parallel and narrow rectangular compartments or caissons formed by eight wooden beams stretching across from the front cella wall to the back of the entablature above the columns in


Fig. 8.-Restored Scheme of the Megarians' Pronaos Ceiling.
antis, and the two corresponding stone beams (Ortbalken) topping the lateral inside walls (of the vestibule: see Fig. \(8^{50}\) ). The cardinal discovery for restoring the palmette decoration was its appearance, without any trace of the
appears repeated on a wholly flat band in Fig. 7 as the decorative interior frieze of the pronaos, und is admirably shewn in Dr. Graef's plate(see the preceding note 46). The Megarians' cornice-profile,-two surfaces, the under one flat, the upper one outswelling,-painted with alternately upright and reversed palmettes and lotuses, was practically reproduced in the painted marble cornice,-diversified by water. spouts, along the eaves of Libon's great temple; its pattern but not its profile shews with an insignificant variation for the worse (a feeble intrication of spirals) on the Selinuntines' temple ' C ' (cf. Plate xlv, Fig. 2 in Bau. meister). If the date of the Selinuntines' temple is fixed late in the seventh century, then it looks as if the Megarians lad improved upon the Selinuntine pattern. Note that this pattern and in general the whole polychromy of

XI was executed in the same three colours already familiar as used by the Old Geloans.
\({ }^{49}\) A practical consideration may after all have played a decisive part with the Megarians as well as with the builders of the Parthenon. Confining the painted cornice to the pediments enabled them to dispense on the sides with a gutter and its waterspouts and to have 'dripping eaves.' Such were equally desirable on the crowded Olympian terrace and the frequented Athenian Acropolis.
\({ }^{50}\) At the point of juncture of this stone beam, shewn at the top on the right in Fig. 7, notice a narrow vertical cutting obviously suited for the insertion of a thin rectangular piece of wooden veneering. Projecting from the stone beam in which it was bedded this veneering panel was similarly inserted into the next parallel transverse beam. Its insertion
colours, but still most clearly, on one of these two stone beams (see Ol. Text ii, p. 52 , where Dr. Dörpfeld gives an account of the matter).

As for the roof of the whole fabric, a square seating for its fair-sized ridge-pole shews at the top on the inside of the middle tympanum-block. It may be inferred that the slanting rafters had support from various uprights resting on horizontal beams forming the ceiling of the cella. On these rafters were laid the planks which in turn carried the tegulae bedded in clay. The three recovered tympanum-blocks, \({ }^{51}\) and the sculptured representation in high relief of the battle of the golls and giants, were unearthed where they, along with various terracotta fragments from XII and XI, had been piled in, not far from the north-western angle of the South Portico, to form the 'core' of the last eight metres at the southern extremity of Leo's West Wall. 'They must have been transported upwards of 250 metres, along with the whole entablature of which they formed a conspicuous part. The group as restored is sketched in outline in Figure 6. As for the use of colears, the background
muquestionably implies the identical insertion between the same transverse beam and the same lateral stone of a second vencering panel in order to close the caisson at its opmosite end (on the front cella wall). Thus was formed a compartment or caisson 0.40 metre wide by 3.44 metres long. This quadrilateral compartment was repeated eight times, for behind the triclyph-blocks of the fricze shew not only the square seating cut to receive the beam just mentioned, and shewn in Fig \(\gamma\), hut seven others at due intervals and exactly like it. That all the vertical faces of these eight leams were decorated with the same pattem of alternately reversed palmettes and lotuses, already described as applied to the pedimental cornice, is practically certain, because unmistakable traces of it have been made out on one of the lateral stone beams (0rtbalken) as shewn in Fig. 7.
\({ }^{51}\) These three tympanum-blocks when assembed yield 0.744 metre for the height, and 5.70 metres for the breadth of the tympanum. The horizontal cornice of the pediment measured 6.30 , the foundations below 6.80 metres. Three facts, ( 6 ) the exact suitability in dimensions of these tympanum-blocks to the measurements of the Megarians' house, (b) the agreement of their sculptures with Pausanias' glance at the Megarians' pediment, (c) the material of (b), which is the same yellowish (travertine) limestone from the Alpheius valley (Dr. 'I'ren, Ol. Text iii, 1p. 1, 3, and 5 ) used for the more or less contemporaneous archaic and colossal head of Hera belonging to the Heraeum,-all conspire to identify these blocks with the Megarians' entablature whose broken bits were recovered along with them: (c) is evidence, though the
entablature is of different and coarser stone, because the trunnels patched in on XI (see above, note 44) are invariably of this same marly (travertine) limestone. Another small piece of evidence depends on the fact that the Megarians' pediment seulptures were not in the round, but in high relief' (cf. P'ausanias' expression \(\epsilon \boldsymbol{\epsilon} \pi \in i \rho \gamma \alpha \sigma \tau \alpha\) b \(\tau \hat{\varphi} \hat{\alpha} \epsilon \tau \hat{\varphi} \delta \tau \hat{\omega} \nu \gamma เ \gamma \alpha{ }^{\prime} \nu \tau \omega \nu\) каі \(\theta \in \bar{\omega} \nu\) aó \(\lambda \epsilon \mu o s\), sce above, note 38 ). This accounts for the fict,-proved by the otherwise impossible lines of juncture shewn by the five sculptured stones, -that these limestone blocks were laid in the tympanum before they were seulptured. Dr. Treu demonstrates this by various detailed considerations (Ol. Text iii, pp. 11 f.), e.g. if the blocks had been first seupptured and afterwards hoisted into place, the thin vertical slice of Heracles' breast cut off by one of the junctures would certainly have sulfered serions fracture, involving in the process of fitting it on to its continuation on the block adjacent repairs that were certainly never made. That l'ausmias' use of \(\overline{\epsilon \pi}\) i should imply sculpture of the blocks previously bedded in the tympanum could have been learned of Dr. Schubarth (Philologus xxiv, p. 584), and is also proved by the position and trend of chisel-markings on the blocks themselves. These were made by chisels of more than one width plainly shewn and measured on the blocks. Drills were also used for the first rough work on the deeper cuttings. The indications of these pediment sculptures shewn in Fig. 6 are obviously insufficient, but they substantially agree witn Dr. Treu's final restoration, which has been followed here and should be serutinised in Ol . Pl. iii, Plates ii-iii.
was of a brilliant lightish blue, \({ }^{52}\) red iron oxide was also used, and the actual state of preservation of all the nude surfaces proves their original protection by colour of some kind all traces of which have disappeared. Male figures alone are involved, since Athena (middle left-hand group in Fig. 6) was draped, and for them something like the orange yellow, 'favouring' red, shewn on the archaic terracotta group of Heracles and the Hydra in the Acropolis Museum nust have been used. Although no longer, as when they were first unearthed, the oldest known pediment-sculptures, these Megarian figures have gained rather than lost in interest through the comparisons made possible by discoveries on the Athenian Acropolis. They shew for instance a marked advance upon the obviously more ancient Athenian group of Heracles and the Hydra (not to speak of the more than archaic architrave-frieze at Assos with which there are also points of resemblance), and have even some points of advantage over the possibly contemporaneous battle of the gods and giants on the Siphnians' house at Delphi. But this last parallel is of course comparatively fruitless, because a pedimental group is one thing, and a continuous frieze like the Siphnians' is quite another. The Siphnians certainly had superior technique, but perhaps the Megarian sculptor, less preoccupied by purely decorative considerations, has achieved a more vividly dramatic composition. One comparison however is now possible where the Megarians unquestionably have the worst of it--that with the battle of Athena and the giants in the pediment of the remodelled Pisistratid Hecatompedon. \({ }^{53}\) Though one may contrive to miss in this serenely triumphant Athena and her almost monotonously cowering foes a note of awkward but genuine poignancy present in the intenser Megarians' pedimental group, \({ }^{54}\) yet the later art of the Athenians is incomparably superior for many reasons,

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\({ }^{52}\) See above, note 48 , at the end. Vestiges of tlie blue background were detected behind the helmet of Zens (central group) as well as behind his and his giant antagonist's legs. Red iron oxide was found on this same giant's shield and helmet, on the cliton of Ares (right hand comer group), and on the hair of the giant assaulted with club and how by Heracles (middle right hand group). The same brilliant red also appears on the head, lips, and eyes of Poseidon (hurling Nisyros at his prostrate foe in the left hand comer group). The eyes in all cases are archaically almond-shaped. Black must have been freely used to bring out various details such as toes, hair, and the like; the more so because, though several bits in high relief were pieced on, resort was not had, as in the Aeginetan pediment and elsewhere, to bronze appurtenances or details of any kind. Note that Athena's bare left foot must have been of some light colour.
\({ }^{53}\) See Wiegand, pp. 126-147, for Professor Hans Schrader's account of it.
\({ }^{34}\) No very strict comparison can however be
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made, since both groups as recovered are about equally incomplete: at Athens (Wiegand, p. 196) two auxiliary gods with their defeated giants are missing, while at Olympia nearly the whole of every one of the victorious gods is the result of Dr. Treu's well inspired genius for restoration (see Ol. Pl. iii, Pl. ii-iii, where the restorations are minutely indicated). In what remains of young Heracles are vivid intimations of spring aud power, and the relics of forward swerving Ares give a hint of formid. ably compressed energy; but the vanquished giants really remain in possession of the field, though the evidence is good, shewing that Poseidon, himself guessed at more than seen, is hurling Nisyros, and that Athena's left foot was certainly planted on the fallen giant's right leg near a gaping wound made just in front of it by the onset of her spear. Both Zeus and his thunderbolt are conspicuously absent, so that the study of the giants' varied figures (alike only in that each one is paralysel by the terror of impeuding destruction) is about all that can be safely indulged in: the one
of which one has to do with their use of marble instead of the Megarians' limestone. But the most obvious one certainly is the ludicrously diminutive scale forced upon the Megarians by the size of their Olympian house. Their gods and their giants are not quite half life-size, whereas the Athenian figures are much over life-size, the Athena being over life-size and seven and a half heads high at that, and the giants being represented not only in proportion, but as real giants. Turning to a comparison more to our Megarians' advantage, note with Kekulé a certain resemblance between the Heracles here aud the Heracles of the well-known Selinuntine metopes of temple 'C.' A compendious vitality,-gained at the expense of delicate finish, no doubt, but still achieved,-characterises alike these Megarian sculptures, and those of Selinus, a granddaughter colony. \({ }^{55}\) General comparison of the composition in hand with larger and later pediment sculptures reveals a neglect in the smaller work of strict symmetry such as is found alike in the Pisistratid, the Phidian, the Aeginetan, and the great Olympian pediment groups. In dispensing with a central figure, the Megarians were but cutting their coat according to their cloth; and so escaped the snare of triviality so hard to avoid with diminutive figures and small space. \({ }^{56}\) To have pediment sculptures at all for so diminutive a building may have been the Megarians' new idea; the still better plan of entirely dispensing with pediment sculptures was the new idea of a later day, though but a reversion to the practice of the Geloans and the Metapontines.

The Cyrenaeans' House, No. VII. \({ }^{57}\)-After the Megarians' treasury had occupied all the available \({ }^{58}\) space between the ancient altar (VIII, cf. J.H.S. xxv, p. 294) and the Stadium, communities seeking good sites for new communal houses began \({ }^{59}\) to build west of the altar. \({ }^{60}\) The Cyrenaeans came

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before Zeus takes his death with a brutishly comatose grimace, the victim before Heracles lies in a disjointed heap, Athena's foe lies paralysed by her spear-thrust, while Poseidou's still grips his sword and requires the quietus which is descending upon him.
\({ }^{55}\) J.H.S. xxv, pp. 298f. Noticeably similar details in both are (cf. Dr. Treu in Ol. Text iii, p. 14) the similar fashions of breast-plates, leathern as well as of bronze, -the central giant has a breast-plate and greaves of bronze indicated by a colour different from that of the leathern ones of his followers, he also wears a helmet with plumes, these being carefully picced on to the original stone,- the similar treatment of the folds of the shirts shewing below the accoutrements and a similar play of facial expression. For other points of similarity between this whole fabric and Selinuntine work, see above, note 48.
\({ }^{56}\) Note (Wicgand, p. 106, Figg. 109 and 110) that the Hecatompedon pediment-group of Heraclesand the Triton has no central figure, -only a tree for the impedimenta of the hero, nor has the
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corresponding east pediment any central figure. Like the Megarians' treasury, which it did not greatly exceed in size, it shews only a central group.
\({ }^{57}\) See J.H.S. xxv, pp. 294-301 passim, for evidence that VIII was an altar, and on the whole question of identification.
\({ }^{58}\) It could not have occurred to them, as it did to the Selinuntines, when VII, VI and V had been built west of the altar, to crowd their house in between VIII and X (see J.H.S. xxv, p. 294, plan).
\({ }^{89}\) If a precise date must be hazarded, Dr. Studniczka's later date (Kyrene eine allgriechische Göttin (1890), p. 36) rather than his סev́тєpas фpovalסes in Roscher iii, 1'. 1724 (Ol. Text iii, p. 23, n. 1) might be adopted. Though VII was the earlier foundation, the date 554-544 B.c., that of Arcesilas II, may stand for all three of them.
\({ }^{\omega}\) The notion that VII must be among the very oldest fabrics on the terrace because it is built on a high level is far-fetched.

first and laid the foundations marked VII \({ }^{61}\) (see Figg. 1 and 9). Of these foundations little remains, \({ }^{62}\) and of their superstructure nothing for the student of architecture (Ol. Text ii, p. 48). But Dr. Treu (Ol. Text iii, pp. 19-23) convincingly argues that two sculptured fragments of North African limestone, \({ }^{633}\) found at diagonally opposite extremities of the Altis, may have decorated its pediment. \({ }^{64}\) One of them certainly represents Cyrene throttling a lion (Pindar, \(P\). ix. vv, 17 and 26 ff .), an episode popular with Cyrenaeans at all epochs. \({ }^{65}\) Dr. Treu's evidence \({ }^{66}\) is all the more important because it suggests that the Cyrenaeans, like the Old Geloans, fashioned at least some part of their treasury at home and carried it piecemeal across the Mediterranean to Olympia. \({ }^{67}\)

The Sybaritcs' IIouse, No. VI. \({ }^{68}\) - Built in approximately the same decade with the houses on either side of it, VI, althongh currently identified with the Byzantines', should figure as the Sybarites' house. A little more is known
\({ }^{61}\) Currently identified with the Sybarites' trensury but not on the evidence of any observed facts. The identification depends entirely on l'ausamias and cannot stand if VIII is ate altar.
\({ }^{62}\) Sce J.71.S. xxv, P. 297, n. 5.
63 It is of a kind common in Jibya, harder and whiter (Ol. Text iii, p. 21, 1. 2) than any found near Olympia. The fragments are (a) the mutilated torso of the nymph Cyrene engaged in throttling a diminutive lion (figured in Dr. Studniczka's article Cyrene, Roscher, iii, p. 1723), and (b) the headless, legless and tailless trunk of a cock which nevertheless is obvionsly identical in type with birds depicted on Cyrenacan vases (Studniczka's Kyrcue 36). Though found far apart, among the remains of two quite distinct Byzantine settloments, the sameness of their Libyan material and their agreement in scale prove ( \(a\) ) and (b) to be parts of one anl the same composition, while the Libyan provenience of the limestone, the Cyrenacan scene depicted, and the style of the representation, being notably of Cyrene, conspire to identify these seulptures with the pedimental decoration of the Cyrenaeans' house.
\({ }^{64}\) The brilliant identification by Treu and Sturniczka of these pedimental sculptures ought, although these scholars by no means countenance such an idea, to dispose of the current identification with VIII of the Cyrenaeans' treasury, and should go far toward confirming its identification with VII ; for VIII, restored as a treasury (J.H.S. xxv, p. 295, with n. 1) could not house these senlptures in its pediment, since the scene (Pindar, P. ix, 17 and 26 ff .) absolutely requires a figure of Apollo for whom there would be no room (Ol. T'ext iii,
p. 22, and Roscher as above). Furthermore Dr. Studuiczka notes that the late required by the style of these senptures is about the middle of the sixth century, whereas that assigned to VIII is much earlier. Again such limestone as appears in VIII is of the wrong kind to go with the African variety. VII, on the contrary, had a pediment wider by 1.31 metre than any that could be attributed to VIII, and would therefore house both Cyrene and Aprollo most comfortably. If the seulptures are dated much earlier than the approximate date (554-544 1:. c.) here suggested for the founding of VII, VI, and V, then the fact observed by Dr. Tren,-that Cyrene cannot have been in the archaic posture attributed to her by Dr. Studniczka (with one knce on the ground) and commonly known as the Kniclauf (Ol. Text iii, p. 20),-is disconcerting.
bis In the British Musemm are two late Cyrenacan monuments, one a marble relief found in the temple of Aphodite at Cyrene, the other a group found in the Cyrenaean temple of Apollo (Smith and Porcher, Discoveries at Cyrone, P1. 76). Studniczka identified this Olympian fragment as representing Cyrene by comparison with both these later monuments.
66. See notes 63 f . above.
\({ }^{67}\) Note that the Sicyonians fashioned every detail of their honse (I) at home and transported the whole of its superstructure to Olympia, sce below note 110 end, and J.H.S. xxv, p. 309.
\({ }^{6 s}\) See Fig. 9 and J.H.S. xxv, pp. 294, plan, 296, wit'। n. 2, 297 n. 6 , and 298 f., with n. 8, and also Ol. Text ii, p. 47.
of its foundations (see Fig. 9), but no more of its superstructure \({ }^{69}\) than in the case of VII. Poros foundations like these with no footings are evidently ticklish things, for there has been a phenomenal settling at the south end, and what should be joints in its side walls are gaping rifts. The rabetting or sinking of commissures, vertical and horizontal, has been overdone, leaving a very narrow outside rim or zone of complete contact. There are marks of the use of swallowtail-fashioned dowellings (Ol. Text ii, p. 47), and the dowels may have been either of bronze or of wood. The dimensions of VI as of VII make it practically certain that each had two columns in antis. Dr. Treu (Ol. Text iii, pp. 23 f.) makes out a very good case for assigning several remains of sculptured birds to the pediment of VI, which may have aimed at something like the decorative effect of VII, where the group of Cyrene was flanked by figures of the same kind, though of a very different style in the execution. \({ }^{70}\)

The Byzantines' House, No. V \({ }^{71}\)-The next foundations on the west, V, currently identified as the Epidamnians', should figure as the Byzantines' house. Though of about the same date with VI and VII, V may because of the footings of its foundations have been the last built of the three. \({ }^{72}\) The need of such footings was suggested perhaps by early signs of instability in the case of VII and of VI. At all events, V must have been founded before the Scythian campaign of Darius and the capture of Byzantium by Otanes \({ }^{73}\) in 513 B.c. Disappointments lie in ambush for the careful student of the foundations of V . The footings of pebbles in a matrix of hard clay have not prevented the southern substructure from falling 0.20 metre lower than that on the other sides; only one single course of poros-blocks \({ }^{74}\) constituted the substructure thus berlded ; on the north there were apparently no footings, and the course above has completely vanished. A welcome detail is the footing of the front or south cella-wall (a partition with a doorway), which has been clearly made out. This determines the exact position of the cella door, under which there is no footing but only foundation blocks for bedding the threshold-stone. A final disappointment, however, lurks in

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\({ }^{69}\) Not i stone of the entablature, the columns or the antae, and very few stones of the cella wall have been identitied in situ. Even this is more than can be said for VII.
\({ }^{70}\) Dr. Treu's identification holds good when VI is regarded not as the Byzantines' but as the Sybarites' house, for he has discovered nothing peculiarly of Byzautium about the subject represented, and the material used he identifies as Pisatan limestone. Nor does his remark, -that the comparatively advanced style of these still archaic fragments forbids our classing them with such pediments as those on the Athenian Acropolis which were entirely filled with animal figures ( 01 . Text iii, p. 25 init.),-imply a date for them other than the middle of the sixth century.
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\({ }^{71}\) See Fig. 9 and J.H.S., pp. 294, with plan, 295 n. 2, 296, 299 f., with n. 10.
\({ }^{72}\) On the instability of the foundations of VI, see above, and for the same defect in VII, see J.H.S. xxv, p. 296, n. 5 ; on the whole question of footilgs under Olympian foundations, sce above, notes 24 (p. 54), 28 (p. 58), and below, note 108 (p. 78).
\({ }^{73}\) An oliservation of Dr. Treu (01. Text iii, p. 24), which he of course applies to IV, the currently accepted Byzantines' house, here identified as the Epidammians'. It applies equally well to V .
\({ }^{7}\) Most of the poros is of the marly variety, but there are two stones of coarser grain, containing abundant shell depesits.
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the plainly scratched \({ }^{75}\) circle marked on a central top stone of the southern foundation-wall. No column could have stood here for several reasons: ( \(\alpha\) ) the scratched stone was not of the stylobate, but underlay it ; (b) a column in that place would have implied eight columns for the whole front-more than it could hold \({ }^{76}\)-and would also have blocked the cella-door. The rabettings or sinkings of commissures are identical with those of VI, but as to the use of clamps or dowels there is no evidence whatever, since no stone of the superstructure has been recovered. Dr. Treu's reasons (Ol. Text iii, pp. 16-18) for associating with V a splinter and a substantial fragment of sculptured limestone are not given as conclusive ; but it seems not unlikely that he has really pitched upon relics of the Byzantines' pediment sculptures. If any house on the terrace was decorated with pedimental sculptures, surely V was one of them, since it was uniquely elaborate,-the Young Geloans' porch being an afterthought-in having six front columns. \({ }^{77}\)

The Selinuntines' House, No. IX. \({ }^{78}\) —Not wishing \({ }^{79}\) to build farther west than \(V\) (the Byzantines' house), the Selinuntines so contrived that they were allowed to build their house just east of the altar (VIII), crowding it into the uninviting space \({ }^{80}\) west of and adjoining X. \({ }^{81}\) The date, 554-544, experimentally suggested above \({ }^{82}\) for VII, VI, and V, would accord with that

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\({ }^{75}\) See Fig. 9. Dr. Dörpfeld conjectures (Ol. Text ii, p. 47) that the architect may have scratched this circle in order to see whether the foundation wall was broad enough, or he may have originally intended to use the scratched foundation-stone for the drum of a column.
\({ }^{76}\) With eight columns the intercolumniations would be reduced to 0.64 metre, although V is, with'the exception of XII, the broadest of the treasuries, being broader in proportion by one-third than most of them.
\({ }^{77}\) See 01. Text ii, p. 47, and J.H.S. xxv, p. 299, n. 10.
\({ }^{78}\) See Fig. 1, and J.H.S'. xxv, Pp. 294-298 with nn. 3 and 6.
\({ }^{79}\) The Selinuntine architects plainly adopted their site as a pis aller, and were fully justitied, after the fact, in avoiding the alternative site where later the Epidamnians built IV (see Fig. 9 and J.H.S. xxv, plan on p. 294), by the eventual settlement ( \(0 \cdot 11\) metre along the south wall of IV) in spite of exceptionally careful footings, laid under all four walls of the Epidamnians' foundations (see above, n. 72), and note that the lamentable instability even of V , in spite of its carefully laid footings, must have re-enforced the warning afforded to the Selinuntines by the condition of VII and VI, of which they cannot have been unaware (see also above, nn. 24 and 28).
\({ }^{80}\) Difficulties caused by the natural level,
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lower than that of VIII, forced the Selinuntines to build around and outside of their founda-tion-walls at the north-west corner the low wall which appears in Fig. 1. Thus, although they escaped the task of bedding their foundations, they had to support them. Also there were serious architectural drawbacks involved in crowding their house between the altar and X (see above, n. 30 end and cf. n. 58).
\({ }^{81}\) Had VIII been a treasury, the Cyrenaeans' or another, the Selinuntines might have found it difficult to secure their site. To overcome the scruples of the Metapontines may indeed not have been easy, and certainly it was the cue of the Eleans, with whom doubtless the decision finally rested, to prevent the giving or taking of offence in such an uncomfortable matter. The Megarians, near neighbours of the Selinuntines on the terrace, were doubtless (see above, notes 46 end and 48 end, and also J. I.S. xxv, pp. 298 f.) friendly, and may possibly have used their influence to help their colonists secure the site.
\({ }^{82}\) A more precise date than the one estab. lished (before 510 в.c., J.H.S. xxv, p. 299) may possibly be derived from raising the question why the Selinuntines did not imitate the Megarians in decorating their pediment with sculptures. That their pediment was unsculptured is proved by recovered fragments of their tympanum (Ol. Text ii, p. 50 init., and iii, p. 24, with Pl. i, I'l. xxxiii, Fig. 4). All
of, say, \(540-530\) b.c. for IX. \({ }^{83}\) The material used by the Selinuntines for their foundations (Ol. Text ii, p. 49) was poros, but of finer grain and closer texture than the Olympian variety used for Libon's great temple. These peculiar characteristics, possibly indicating it as quarried near Sybaris (J.H.S. xxv, p. 298 ad fin.), have made easy the identification (Ol. Text ii, p. 49) of scattered remnants of the entablature. \({ }^{84}\) On these are no marks of the use of clamps or dowellings except the shaped one shown on the corner of the triglyph-frieze in Fig. 11.85 If the north wall of V has entirely disappeared (see above, p. 69), the same is true of the Selinuntines' south wall (with the doubtful exception of two stones shown on Fig. 1), of half of their east wall, and of the whole of their south-west corner. Their


Fig. 10. -The Two Successively laid Floors of the Selinuntines' Hoube (IX).
front cella (partition) wall has also vanished. In what must have been the centre of the cella are eight stones, evidently belonging to the support for
previously dedicated houses (except the oldest, XII, and possibly X, founded next after XII), had such sculptures. Not one founded after IX appears to have had them. For, as to IV, the fragments ingeniously assigned to its pediment by Dr. Treu (0l. Text iii, pp. 15 ff .) hardly bear out his case and are in fact difficult to connect with any pediment, and there is no evidence one way or the other in the case of II and III. Prone, as Selinuntines, to take their cue from metropolitan Megara, our builders nevertheless took the lead on the terrace in departing from the Megarian precedent (sce above, p. 66), probably because the Pisistratid gigantomachy had come into existenco and made it evident that marionette figures on diminutive fabrics were absurd. The Pisistratid foundations for the enlarged Hecatompedon are dated with their sculptures in the last half of the sixth century, presumably after the restoration of the temple of Apollo at Delphi, which took place soon after 548 B.c. (Wiegand,
p. 126). Due time being allowed for these Athenian sculptures to make their mark in Greece, it is not unreasonable to date the Selinuntines' self-denying ordinance, and with it the dedication of their communal house about 535 в.с.
\({ }^{83}\) See above, n. 58.
\({ }^{84}\) These identifications are certain because one course of the cella wall,-the obpөootárat (two rows upstanding on edge and back to back), see Fig. 1,-still remains in situ, and is of just this material. Note the large swallow-tail-fashioned dowel-holes which make it certain that wooden dowels were used, and contrast, on Fig. 9 the smaller holes of VI, whose dowels may have been of bronze (see above, p. 69).
\({ }^{85}\) The occurrence of \(\square\) shaped clamps along with swallowtail-shaped dowellings is paralleled in the Council-house, and in the Young Geloans' porch (Fig. 4), in both of which fabrics both of these were applied to one and the same stone.

some statue. \({ }^{86}\) Close examination of the cella floor and walls reveals earlier work beneath (see Fig. 10). \({ }^{\text {s7 }}\) The Doric entablature shows many experimental archaisms. Its regulae have not been recovered, but were presumably untrumelled \({ }^{88}\) like its mutules, agreeing in this regard with the regulae and mutules of the young Geloans, and of the south wing of the Council House (see above, note 21). The glyph-tops are almost rectangular, offering a striking contrast to the almost pointed arch of the Metapontines' frieze and to the Epidammians' shapely and rounded glyph-tops. \({ }^{89}\) It has perhaps after all been pessible to identify the capitals, \({ }^{90}\) but no remnants of the columns have been recovered.

The Epidamnians' House, No. \(I V^{91}\)-The date and name of the foundations numbered IV, currently identified with the Syracusans' 'Carthaginian' house, but more reasonably to be designated as the Epidamnians', call for no further discussion \({ }^{92}\) here. None of the superstructure stands in situ, and only two courses of the foundations remain, along with their very thoronghly laid footings. \({ }^{93}\) (See the east wall foundations to the left of V on

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\({ }^{86}\) See Fig. 1. Here is the solitary indication from the Olympian terrace that there may have been in a treasury something of the nature of a cultus statue.
\({ }^{87}\) The earlier floor consisted of limestone concrete, i.c. (a) 5-10 millimetres of mortar, (b) 5 millimetres of very hard mortar or concrete, (c) a very thin layer of lime, spread directly on the soil and still in a state of excellent preservation. About 0.44 metre above this floor is laid a later floor, consisting of poros flagstones, separated from the concrete by a void. The film of stucco applied to the side wall by the contrivers of the concrete floor and extending plainly down to its level, shews that they did not also lay the flagstones.
\({ }^{s 8}\) It is, however, possible that the Selinuntines, like the builders of the north wing of the Council-house, may have trumtlled their regulae and left their mutules untrunnelled.
\({ }_{8}\) Dr. Wiegand's fabric ' IB' has syuare glypltops also (pp. 156-162, and II. xiii, 110. 3): see on p. 163 the case of the Hecatompedon whose glyph-tops ate scrupulonsly rounded, while (incised and prainted in red and bhe alternately) on a line with them as their continuation across the adjacent metopes, are flat or square-topped glyphs like those of the Selinuntines. It is still more noteworthy that the flat and the rounded glyph-top, figure together, though not in the same frieze, upou Libon's great Olympian temple. The glyphs of the piteron are flat, but those above the cella door are round (cf. below 11. 99).
\({ }^{90}\) Two Doric capitals have been found, both of a stone which matches that of IX, but shew-
}
ing profiles so divergent that Dr. Dörpfeld declares (Ol. T'ext ii, p1. 49 f.) it impossible to decile which one is Selinuntine, and insists that both camot have belonged to the same fabric, although both,-so far as measurements go,-might he adopted. Then we should but have a repetition, in treasury IX , of that strange variation in the profile of capitals belonging to the stme building which is thoroughly exemplified by the ancient Olympian Heraemu near by. This view has seemed to me the mose reasonable oue, and both these columns are therefore shewn in Fig. 11. Here again is an illustration of the experimental phase of archaic Doric as exemplified by the Olympian communal houses.
\({ }^{91}\) See Fig. 9 and also J.H.S. xxv, Pp. 294 ff . with min. 2 and 11.
\({ }_{92}\) Ih. p1. 294 ff. with plan and 1 n .2 , and 298 ff. with in. 8 and 11. It is, however, just worth mentioning that Dr. Wiegand's fabric ' \(A\) ' (which offers, as will appear below, startling and detailed agicements with the superstructure assigned to \(\mathrm{IV}^{\text {( }}\) ) agrees also with it in date (see below, note 99). The assignment of the superstructure is proved. It follows therefore that the current attribution of \(I V\) to the Syracusaus must be abandoued, unless we give up Pausanias' well-accredited date for the Syracusans' foundation (J.H.S. xxy, 1, 299 ad fin.).
\({ }^{93}\) Here again, as in the case of V , the footings have not prevented a settling of the foundations ( 0.11 metre on the south side). What would have happened, if the Epidamnians, taking warning fiom the condition of VII,

Fig. 9 and the plan in J.H.S. xxv, p. 294.) Scattered splinters of brilliantly white limestone have led to the identification, \({ }^{9!}\) as parts of the superstruc-


Fig. 12.-Detalls of the Epidamnians' House (IV').

VI, and V, had not taken pains with their footings, may be guessed from the fact that, to reach the solidly compacted soil further west, the Sicyonians had to dig as deep as 3 metres. As compared with the eastern end of the terrace this western end was evidently the recent result of land-slips from Mt. Cronius (see above, notes \(24,28,72\), and 79). Although few traces of the Epidamnians' footings were found under the north wall, yet they ovidently laid
footings there and to this extent profited by the experience of the Byzantines. Both remaining courses of their foundations together reach a height of 0.70 metre; the stone used is ordinary Olympian poros with sporadic bits of sandstone or marly limestone. But these stones are not dressed as for ashlar-work, but with a view to a sort of polygonal masonry not paralleled elsewhere on the site.
\({ }^{94}\) See Fig. 12 and J.H.S. xxv. p. 300, n. 11.
ture, of five groups of fragments shewing the same facies. \({ }^{95}\) (These constitute the evidence justifying the several restorations of the architectural details of IV shewn in Fig. 12.)

These last again shew interesting archaic variations from the more settled forms of full-fledged Doric: in place of the ordinary 20 flutings vertically bounded or contained by 20 arrises, the shaft shews, apparently, as many as 32 flutings bounded by 16 of the usual arrises alternating with 16 vertically cut astragal mouldings recessed between and contained by right angles: the horizontal member ending the architrave upwards is not a ribbon-band or taenia pure and simple performing the functions of an undecorated abacus; instead of this it carries horizontally the recessed astragal already introduced vertically between the alternate flutings of the columns: \({ }^{96}\) as for the regulae, they carry four trumnels, \({ }^{97}\) and the same number is repeated on the mutules; \({ }^{98}\) a more successful experiment than that of the profiled taenia of the architrave is made in the beautifully rounded glyph-tops of the frieze: \({ }^{99}\) the regular number of three

These fragments found in the neighbourhood of the Prytancum, and appropriated to the foundations of IV, belong to it independentiy of the name it may bear (for the same case of VI, see un. 68 and 72). Measurements based upon these fragments regarded as relics of a Doric superstructure tally in all particulars with the requirements of the foundations numbered IV, providing for an extra triglyph between the two columns in antis,-a by no means inadmissible arrangement.
\({ }^{95}\) These five are: (a) sufficient bits of the stones of the walls to determine their size and \(\square\) shaped dowellings (restored in Fig. 12), to make out in the right places gripping-holes drilled for lifting-irons, and to shew that their rabbetings, horizontal and vertical, were deep and sharply cut sò as to leave a broad surface of complete contact; ( \(\beta\) ) splinters of a Doric column; \((\gamma)\) a fragment of the architrave; ( \(\delta\) ) a good number of fragments from the frieze, by careful measurement of which the respective dimeusions of triglyphs, metopes, regulae, and various members appertaining have been arrived at : ( \(\epsilon\) ) remnants of the cornice and of a tympa-num-block, -the former sufficient to confirm the fact, otherwise arrived at in the case of the regulae, that there were only four trumels abreast on the mutules, the remains of the latter being ample for determining the upward siant of the pediment (see Fig. 12).
\({ }^{96}\) I discover only one parallel to this tripartite profiling of the taenia,-its nualogue occurs on the 'middle' temple at Selinus. The Metapontines' treatment as a cornice of the abacus along the top of their frieze is,
however, a somewhat amalogous experiment (see above, Pp .56 , ad fin and 57 with note 31).
\({ }^{97}\) The trunnels hang 9 millimetres apart, but otherwise elude measurement; the very precisely determined measurement of each regula, however, is 0.306 millimetre and allows only four trunnels.
\({ }^{98}\) Archaic Doric had evidently not a fixed rule as to the number of trunnels to be shewn abreast either in the architrave or on the cornice, for the Athenian Hecatompedon (Wiegand, Plate ix) shewed four trunnels on mutules above metopes and six on those above triglyphs and on regulae. Dr. Wiegand's fabric ' \(A\) ' on the other hand (Plates xi and xii) shews four trunnels above metopes, but five above triglyphs and on regulae.
\({ }^{99}\) Just such are the glyph-tops of Dr. Wiegand's fabric ' A ' (Plates xii and xiii 2), and the measurements of its frieze are strikingly identical with those of the Epidamnians, while the date assigned to it is the one roughly assigned by Dr. Dörpfeld to the Epidamnians' superstructure (see Wiegand, p. 155 and O1. Text ii, p, 46 ad fin.). While the pointed glyph-top of the Metapontines appears to be an architectural \(\dot{\alpha} \pi a \xi \lambda \in \gamma \delta \mu \in v o v\), so to speak, it is hard to decide whether the squared type of the Selinuntines and Sicyonians or the rounded type of the Epidamnians was the prevalent one in archaic Doric. The latter is found on the temple at Assos, and the Selinuntine temple ' C ,' but the former on a still older Selinuntine temple, while both were used by Libon on the Olympian temple of Zeus. The squared type
rows (four in each and not six) appears in the trunnelling of the mutules. \({ }^{101}\)

The ? Samians' House, No. III, \({ }^{101}\) and the Syracusans' House, No. II. \(^{102}\) As norecovered and recorded details exist, either of the Samians' (?) house III, or of the Syracusans' 'Carthaginian 'house, II, nothing can here be added to the discussion of them previously given, and only the Sicyonians' treasury remains to be considered.

The Sicyonians' House, No. I. \({ }^{103}\) —The first or westernmost of the twelve treasury foundations on the Olympian terrace was also the first to be unearthed, and was for a time supposed to represent the second treasury mentioned by Pausanias, the first seen by him having been provisionally identified with foundations further west, of a most scanty and dubious character. \({ }^{101}\) Less dilapidated than those of the other treasuries, \({ }^{105}\) the Sicyonians' foundations lack only a portion of their south wall (see Fig. 13).
finally prevailed, no doubt hecause it harmonises best with the characteristic Doric model for the tops of column-flutes. The rounded type is suggestive of Ionic flutings (cf. n. 89 above).

100 Precise measurement proves that each glyph on the Epidamnians' frieze was \(0 \cdot 102\) metre broad, 0.306 being the width of the whole triglyph. Thus is confirmed the length (otherwise obtained) of the regulae, and also the mutules are proved to have carried only four trunnels. The number of rows (sometimes ther: were two, sometimes three), as well as the number in a row, seems to have varied in archaic Doric, althongh there is no recorded case of two rows at Olympia.
\({ }^{101}\) There are several circumstances in the comnexion of Samos with Olympia at the begiming of the fifth century A.b. which make it not unreasonable to suggest that the Hellenistic inscription (found on May 23, 1878, north-east of the Heracum in a Byzantine wall) \(\sum A M I \Omega N\) (l'urgold and Dittenberger, Ol. Text \(v\), no. 652), 'from some building not seen by Pausanias was really on a building which Pansanias did see, namely on the otherwise anonymous treasury of J.H.S. xxy, p]. 294 f . with notes 1 and 2, and p. 300,-i.e. 1II. This attribution would bear out the prior fommation of IV (J.H.S. p. 3001), and the Hellenistic date of the inseription is matched by that of the strikingly similar one on XI, (OI. 'Text \(v\), no. 653), cf. above, p. 58.
\({ }^{102}\) See Fig. 9, and J.II.S'. pp. 294 f., with plan and m. 1 f. and 4, 299 f., and 306.
\({ }^{103}\) See Fig. 13, and J. H.S. pp. 294 If, with plan, 299 f., 306 f., and 309.
\({ }^{101}\) The word \(S X K \vee O N I O N\), inscribed on a stone unearthed close at hand (belonging upon
the south face of the eastern anta, where it confronted everyone entering with a glance to the right) practically settled the question,-see Dr. Adler in volumes iv, 11. 35 ff . and v , 1 p . 30 f . of the Ausgrabungen zu Olympia. The disconcerting ruins on the west,-foundationstones of a south-western comer under remains of the'Exedra' of Heroles,-are now conjectued to be relics of a temple of Aphrodite Urania (see Dr. Robert, Mithcilungen, xviii, p. 43, and Dr. Dürpfeld, Ol. Text, i, p. 75).
\({ }^{10.5}\) Because, apparently, it alone of all the treasuries was buried under the great landslip of the sixth century, A.D., -a well authenticated catastrophe especially interesting because it suggests similar landslips in remoter times to explain why the soil along the whole western end of the terrace was so unstable that even the most carefully bedded foundations there laid (those of I, IV, and V) exhibit marks of instability (see above, notes 93 and 72 ) while those laid without footings (VI and VII) suffered most seriously from settling, -see 0 . Text ii, pp. 48 f . and above, notes 58 and 80 ), and compare notes 24,28 , and 79 . Until this landship, I, like all the other foundations on the terrace and their ruining superstructures, lay for long generations at the disprosal alike of the builders of theBasilica (ca. 426 A.1. when Libon's great temple was burned) and of Leo's fort (ca. 465-470 A. \%.). It was apparently monopolised by the former and by the still less skilled, but contemporancous, builkers of the earlier Byzantine village around the Prytaneum. Doubtless it did not tempt Leo's engineers because the open way along the front of the Echo portico made easy the transportation of materials from XII and XI.

Steps two in number, one of them apparently refashioned into two, are plainly visible on all sides. Much of the inside pavement lies in situ, and also not a few blocks of the bottom course of the cella walls, many others


Fig. 13.-FozNdattons of the Sicyosinns Houne.
of which were found scattered about near at hand, along with many stones from the architrave, cornice, and frieze. \({ }^{106}\) These are the large and unmanageable

\footnotetext{
\({ }^{106}\) A proof of the ruinous condition of the whole fabric before the great landslip, but after
the builders of the Basilica and the Prytaneum village had wrecked it.
}
stones from the wreck; more portable ones came to light in the Basilica and the Prytaneum village. All extant portions of the building have, with time and patience, most assuredly been recovered, their imported Sicyonian stone being unique on the site (J.H.S. xxv, p. 309). Examples of practically all its architectural members having thus been identified, the last built among the dedicated communal houses at Olympia (J.H.S. xxv, pp. 299) takes its place on the record of modern archaeological research as one of the most adequately recovered and interpreted minor monuments of Hellenic architecture.

The merest glance at the ground plan given in Fig. 13 shews such a difference in solidity as regards their foundations between the front (south) and the partition (front cella) walls, that the former alone can have been intended to support columns. This justifies the restoration of the whole fabric as a templum in antis. \({ }^{107}\) Measuring inside 10.49 by 5.26 metres, and 12.80 by \(7 \cdot 31\) outside, I, small though it was, ranks among the larger houses on the terrace. For their modest building, the Sicyonians dispensed of course with anything like the solid masonry that formed the Parthenon stereobate, or the mounded erection under Libon's great temple, and were content with piecemeal foundations and footings. \({ }^{103}\) Just at the back (north) end, however, where the virgin soil \({ }^{109}\) came nearest to the surface, something like a solid and continuous stereobate is laid. This extends under the whole northern half of the cella, where the two foundation-courses underlie not only the walls but also the whole floor of the north half of the cella. Upon the flagging above this very solid basement (discontinued under the southern half of the cella and the vestibule) were doubtless placed the ponderous Oá \(\lambda a \mu o \iota\) dedicated, says Pausanias, by Myron and the Sicyonians (J.H.S. xxv, pp. 308 f.). Reverting again to the opposite (south) foundation-wall, and fixing attention on its right hand (south-eastern) corner, note particularly a detached extension of it so laid that it cannot but have been intended to support an altar (J.H.S. xxv, p. 306 f., and n. 35 above).

As for the superstructure of I, whose more essential features are exhibiterl

\begin{abstract}
107 This restoration is amply confirmed by recovered stones belonging to both antae.
\({ }^{108}\) Unlike the Epidamnians, the Sicyonians left their north wall and end without footings probably because IV had settled perceptibly before I was plamed, and the fair inference was that its builders could with safety revert to the practice of the Byzantines, since \(V\), with no footings under its north wall, had fared no worse than IV. The Sicyonians did, however, dig very deep trenches for their footings, especially under their south wall where the subsoil was most ticklish (see above, note 105). Their trenches were filled with rubble, pebbles, splinters from poros-blocks, chips of breccia, and also a few sherds of terracotta roof-tiling of strikingly archaic mould and derived evidently from some fabric (possibly an earlier
\end{abstract}

Sicyonians' treasury, -see J.H.S. xxv, 1. 309) far more ancient than I (see Ol. Text ii, p. 41). These footings underlay the whole south wall and extended for a short distance northward under the two side walls. Above them and also minder all parts where footings were dispensed with, came the foundation-courses strictly so called: (a) small stones laid in a mortar of clay, ( \(\beta\) ) ordinary blocks, chiefly of common local poros, but occasionally of the same imported tawny sandstone of Sicyon used for the whole superstructure.
\({ }^{109}\) Under the south wall the virgin soil ran in places as much as 3.40 metres helow the surface, the soil to that depth having presumably slipped dowa from Mt. Cronius (see above, n. 25).

File. 14. - Rimioned Detalls of the Sroyonans Huuse.
(as restored) in Fig. 14, not only are all its very numerous recovered blocks and fragments of the same tawny limestone (verging toward sandstone) presumably quarried near Sicyon, but sixteen important blocks among them bear as stonemasons' marks peculiar letters belonging specifically to the alphabet of common use at Sicyon between 500 and 450 B.c. \({ }^{110}\) If the building were at Athens, the further fact that -shaped clamps (see Fig. 13) are used throughout the whole superstructure would weigh among the many other convincing arguments in favour of dating it as near to 500 B.c. as would on other grounds be possible. \({ }^{111}\) It is, however, satisfactorily evident that Dr. Dörpfeld can away with these clamps in his defence of the date ca. 450 b.c. (see J.H.S., xxv, p. 299, and Ol. Text ii, p. 43). In the Peloponnesus such clamps may be on any building of the first half of the fifth century, just as the alphabet of all the inscriptions might appear on any Sicyonian building of that half century. There remains, however, a certain presumption favouring a date early in that period for the use of \(r \longrightarrow\) clamps, and no one has stated this presumption in the case of Pelopormesian buildings better than Dr. Dörpfeld himself (Ol. Text i, p. 80). Thus the burden of
\({ }^{110} B\) (for \(B\) ), E (for \(E \mid\) ?), \(X\) (for \(E\) or \(H\) ), and the straight iota nccur among others, and reproduce the alphabet of a vase from Caere dated by the artist's name Exekias (see Roherts' and E. Gardner's Introduction to Greek l'pigraphy, pr .127 and 136). The same date \(500-450\) B.c. is assigned to these stonemasons' marks, when we consider the identity of their alphabet with that of the inscription (see above, note 104, and cf. Ol. Text v, Insaription no. 649) on the anta of I and its variation from that of the earlier dedicatory inseription on a Sicyonian bronze lance head (shewing \(M\) for \{) found at the north-eastern corner of Leo's wall in 1878 (Ol. Text v, no. 245). These sixteen stones were all inseribed on their bottom horizontal commissures in the outer bands (smoothly dressed for complete contact). The sixteen thus especially moted were doubtless those about the proper placing and fitting of which perplexities might easily arise, considering that all the stones alike were (a) quarried, dressed and marked at Sicyon, ( \(\beta\) ) thence transported by sea to the mouth of the Alpheius, \((\gamma)\) and thence carried by road or in barges to the Olympian terrace (J.II.S. xxv, 1p. 303 end and 309 , and no. 616 in Purgold and Dittenberger's Ol. 'l'ext v).
\({ }^{111}\) Considering the absolute definiteness with which Athenian buildings are dated earlier and later according as they have \(r\)-shaped or \(\vdash-\)-shaped clamps, it is disconcerting for the unexpert to find that both kinds were used on the temple of Apollo at Bassae, and to note that \(r-\) shaped clamps were used on the

Megarians' treasury (see above, note 44), the former built long after, and the latter as certainly much before \(500 \mathrm{~B}, \%\), the date when we are 10 suppose that the \(\square \perp\) shape was definitively abaudoned at Athens. Noinferences can therefore he confidently drawn in the Preloponursus as to the date of a building from the use of \(\quad \square\lrcorner\) or \(\vdash\)-shaped clamps. But see Dr 1) \(\mathrm{Hrp}_{\mathrm{p}} \mathrm{feld}\) 's argument (Ol. Text ii, 1. 43) in view of which his argument (Ol. Text i, 1. S0) concerning these leloponnesian fabries is perplexing, for in this last he makes no distinction between Athenian and Peloponnesian work, saying " Wenn wir beim Zeustempel und bei der Basis des grossen Kultbildes Eisenklammern von der Form --- , beim Gebaiude A dagegen solehe von der Form ז...」 finden, so sind wir, so lange nicht das Gegentheil positiv crwiesen ist, verpflichtet an verschiedene Banzeiten zu denken.' His conclusion is that fabric A (with \(\ulcorner\perp\)-shaped clamps) is of earlice date than Libon's great temple (with \(\vdash-\)-shaped clamps). Has Dr. Dörpfeld so clearly demonstrated the architectural modernity of I that the is not bound by his own rule to date it before Libon's temple? The consistent archaisms of its details are eloquent in a contrary sense. It seems one of the most pressing desidcrata for the study of Greck architecture that some competent expert should gather all the evidence now available as to the use of clamps and dowellings, without quite taking it for granted that every Athenian building shewing \(\quad+\) shaped marks is therefore to be dated earlier than 500 s.e.
proof so far lies with those maintaining 450 as against \(480-477\). The rest of the evidence also favours return to the date \(480-477\) B.C., assigned to I on its first discovery by Drs. Adler and Purgold. The former was guided by architectural considerations mainly, the latter by epigraphical ones, so that they drew liglit from a wide range of evidence and are the less likely to have erred, even though, when they fixed the date, they believed that I was the Syracusans' 'Carthaginian' house, built in commemoration of the victory at Himera (Ausgrabungen zu Olympia, IV, p. 36). The capitals, of which one is recovered, had four annulets; the echinus, though decidedly archaic, is more like that of Libon's temple than any of the splaying profiles of the Heraeum; but it shows no approach toward the profile of the Parthenon. \({ }^{112}\) Of the two column-shafts of I, two drums \({ }^{113}\) have been recovered, and these combined yield evidence of an entasis so slight that it escapes detection when each is viewed separately. The Megarians' house (XI, see above, note 40) is a parallel example, showing that entasis could be wholly dispensed with in archaic Doric at Olympia. The height of the columns was approximately 384 metres, \({ }^{114}\) and an iron gate fenced off the vestibule. \({ }^{115}\) Scrutiny of the many recovered blocks from the upper courses of the side walls shews that the two uppermost of these courses corresponded to the architrave on the south and north faces of \(I^{116}\) Thirty-six metopes and the same number of triglyphs formed the frieze, which adorned all four faces of \(I,{ }^{177}\) and the archaic habit

11: Libon's Olympian temple was planned about twenty years after \(480-477\) B. c., the date adopted ahove for 1 ; the Parthenon came later. Dr. Durpfeld's date for \(I\) is after the Parthenon, and is defended because of an astragal moulding along the top of the frieze alike of I and of the l'arthenon. But the Parthenon may quite as well have got this feature from I (J.H.S. xxv, p. 299). Now the profile of the Sicyonians' capital (Fig. 14) is nearly identical with that of the Megarians' (Fig. 6), and both are equally and strikingly similar to those of Libon's temple but absolutely agree in differing from them as to the profiling of the four annuletsthese the Megarians and Sicyonians terminate with sharply defined angles, whereas Libon ends his with a flat terminal surface (see Ol. Text Pl. i, Pl. xv, and cf. Ib. Pls. xxx (Sicyon) and xxxvii (Megara)). But just this differentia, the pointed amnulets of XI and I are found on the Young Geloans' capitals (Fig. 4), dated before 500 B.C. as XI is dated before \(550 \mathrm{~B} . \mathrm{C}\)., and also on the capitals of the southern or later wing of the Olympian Council-House (Ol. Pl. i, Plate lvii). These last are otherwise very similar to Libon's profiles, although Dr. Dörpfeld for obviously good reasons dates the south wing considerably earlier (Ol. Text i, p. 79). But if we adopt this date for that fabric, how can we, in the face of the Geloan and Megarian affinities of I, fail to do the like for I? Indeed the unturtworthi-
ness of dates based on any one architectural detail is just here brought home by the further fact that the profiling of the aunulets on Libon's temple is matched by what may be the oldest of all Olympian Doric capitals (see Fig. 3 and Ol. Text i, pl. 44 and 77, and above, n. 17).

113 Each shaft consisted of two drums. At the tops or necks ran three horizontal neckings or incisions, and here again the profiles of the Megarians and the Sicyonians are alike, and agree in differing from Libon's as well as in resembling those of the Young Geloans' and of the archaic capital of Fig. 3 above, n. 17, both of which, however, had four incisions.

114 The column-height has been calculated as corresponding to the lower twelve courses of the walls, since the recovered lower drum is so fractured at the base that direct measurements were impracticable.
\({ }^{115}\). This is proved by three semicircular seatings drilled into the lower drum at suitable heights and intervals.
\({ }^{116}\) See above, p. 60, O1. Text ii, p. 42, and Wiegand, p. 61, where the same peculiarity is noted in the Hecatompedon at Athens and the Olympieion at Agrigentum. Here again is an archaic note borne also by Dr. Wiegand's fabric ' \(A\) ' (p. 149) dated \(c a .550\) R.c.
\({ }^{117}\) Of the thirty-six sandstone blocks, twenty. nine have been recovered.
of fashioning triglyph and metope together from one and the same block is adhered to. \({ }^{118}\) Taenia and regulae, as a necessary downward finish for the frieze, appear also on all four faces, crowning the top course of ashlar along the two sides. In treasury I, the old fashion of mutules shorter above metopes than above triglyphs has been abandoned ; but two archaic notes still attach to its frieze, absent both of them from Libon's temple: (a) the proportions and profiles of its glyphs are comparatively inelegant, their tops being flatter and closely resembling those of the Athenians' Delphian treasury, built presumably in commemoration of Marathon; \((\beta)\) its pedimental metopes are broader by 0.40 metre than the metopes of its eaves, which are square ; \({ }^{119}\) and consequently, as the mutules were all of the same length, the voids (viae) intervening must have varied in breadth. \({ }^{120}\) Another consequence of having metopes of different breadths was that, in order to make the broader (pedimental) ones appear to the eye as square, these were heightened at the expense of curtailing the supervening abaci, \({ }^{121}\) which thus became narrower than the abaci above the adjacent triglyphs. But this would have resulted in a most disagreeable effect of discontinuity in the frieze as a whole, if the Sicyonian architect had not invented to counteract it the brilliant idea of an astragal moulding which he introduced continuously along the tops of all his abaci,--for all details see Fig. 14. If this reasoning finds acceptance, the hypothesis that the Sicyonians must have waited until the Parthenon was built before conceiving the desirability of their famous astragal is untenable.

Marks, or rather notches, for the use of lifting-irons, some of them afterwards plugged, have been noted on many of the stones of the superstructure, but a number of the cornice-blocks shew in their horizontal commissures two holes not far apart, being the points of emergence or mouths of a semicircular tunnel dexterously drilled to receive the noose of a cable with which, instead of with lifting-irons, they were swung into place. \({ }^{122}\) Horizontal

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\({ }^{118}\) Another archaic note (see above, n. 36).
119 The Hecatompedon and many other archaic poros buildings had one breadth for pedimental triglyphs and a lesser breadth for triglyphs on the sides. The Sicyonians innovated, but were still true exponents of 'precanonic' or experimental Doric in trying one breadth for pedimental metopes and a lesser breadth for metopes along the sides. Here then is another archaic note which at the same time shews that the experimental period is drawing to its close, since the Sicyonians' ingenuity resulted in a great adpance toward harmony and regularity.
\({ }^{120}\) Here again is an archaic note which is at the same time an improvement on various old Athenian poros buildings where short mutules stood above metopes and long ones above triglyphs, apparently in order to avoid any variation in the breadth of the intervening voids. This last variation the Sicyonians evi-
}
dently tolerated as a lesser evil, and thereby shewed admirable artistic discretion. For the disquieting and ungainly effect of their rejected alternative, see Wicgand, Plates i and xii.

121 Note in Fig. 14 that along the sides the abaci are all of exactly the same dimensions, whereas, under the pediment, abaci over triglyphs are twice the height of abaci over metopes (see note 31 above). The idea of such a variation may have derived from the Pisistratid extension of the Hecatompedon, where, as in Libon's temple, all abaci over metopes are of less height than the abaci over triglyphs. On the original Hecatompedon, and on Dr. Wiegand's fabric ' \(A\),' as on the sides of \(I\), there is no variation in the dimensions of abaci.

122 Here is another archaic note, since this substitute for lifting-irons is abundantly proved for the beginning of the fifth and end of the sixth century B.C. by the recovery of similar tunnellings ( \(\alpha\) ) on blocks built into the north
commissures were so rabbeted as to leave two-thirds of their surfaces for complete contact; on the vertical commissures these surfaces were relatively smaller. Wooden dowels 65 millimetres square and 50 high were used in the drums of the column-shafts. Abundant evidence shews that the pedimental cornice and the tympanum space cannot have had any sculptural or other decoration. \({ }^{123}\) There is little doubt that the Sicyonians' roof was of marble, since many fragments of marble tegulae and imbrices were unearthed close to the foundations, and with these were relics of a marble cornice belonging to the pediments. Dripping eaves (see above, n. 49 end) ran along the sides, each downward flanking ridge of imbrices being presumably terminated by an antefix although no antefix-fragments have been recovered. Traces of colour were not lacking. Cobalt blue shewed on several triglyphsand on the trunnels of one cornice-block mutule. Vestiges of red and blue shewed on the Lesbian cyma of the ascending as on the Dorian cyma of the horizontal pediment cornice. \({ }^{124}\) The pediment also shewed ornamentation which had plainly never been touched with paint. \({ }^{125}\) On the capital, which is well-preserved, there are no traces or intimations of colour or decorative design, the same being true of the Megarians' and the Young Geloans' capitals and of those of the Hecatompedon at Athens. To the modern eye at least, this is a great point of superiority in archaic Doric as compared with that of the Parthenon, if we must accept Dr. Bötticher's ideas about the painting of its capitals. Traces not of actual red and blue, but of their former presence, \({ }^{128}\) shewed quite unmistakably along the top of the inside walls, so that nothing is more certain than the former decoration both of the vestibule and of the cella walls throughout with a fretted frieze ending, where it touched the ceiling, \({ }^{127}\) with a Doric cyma. The effect of this design is strikingly similar to that of the painted anta-capital of Dr. Wiegand's fabric 'A.'

\section*{L. Dyer.}
wall of the Athenian Acropolis from the Hecatompedon, ( \(\beta\) ) on one of the triglyph-blocks found in the substructure of the Mnesiclean Pinacotheca, but identified as having originally belonged to a small apsidal Doric building with three columins in antis of about even date with the Athenians' Delphian treasury (Wiegand, p. 158, init.).
\({ }^{123}\) See above, n. 82.
\({ }^{124}\) Dr. Wiegand's fabric 'A' has, in most respects, just the scheme of colouring shewn here and in the Megarians' treasury (see above, note 52). It shews just this red and blue Doric cyma, once on its pedimental cornice and again on the capitals of its antae, as well as under the pediment along the top of the tympanum (see Wiegand, Pl. xii). Note also that, if brown for triglyphs and mutules be substituted, the beautifully modulated colour-scheme of the Athenian Hecatompedon is almost the same as
that used by the Sicyonians. In the points of difference, however, the Athenians shewed their artistic pre-eminence over Peloponnesians of a later period of more advanced art (see Dr. Wiegand's really wonderful Plate i).
\({ }^{125}\) See Ol. Text ii, p. 42 ad fin. No details or further particulars are given. Perhaps the decoration may have been like that shewn on Dr. Wiegand's Plate vi, although in that case it would hardly be certain there may not have been some colour sparingly used.
\({ }^{128} \mathrm{By}\) reason of greater protection from weathering afforded to the delicately stuccoed original surface (see above, n. 9) by the preparation of red here used as contrasted with the blue, Ol. Text ii, p. 184.
\({ }_{127}\) Above the Doric cyma, along the sides of the cella and the vestibule, shewed seatings for the beams of the ceiling.

\section*{ON THE 'LIST OF THArASSOCRACIES' IN EUSEBIUS.}

It is some years now since I had occasion to enter on the question of . the value of the List of Thalassocracies, attributed to Diodorus and to Castor, in comnexion with an enquiry, not yet completed, into the history of Cyprus in early Hellenic times ; and it seemed to me then, first, that it would be of considerable importance, elsewhere than in Cyprus, if this list should turn out to have historical value ; and secoml, that the evidence for its credibility was considerably stronger than was currently supposed. But it was not until the appearance of Dr. Hugo Winckler's paper on the Euphrates-lands and the Mediterranean in the popular German series entitled Der Alte Orient, \({ }^{1}\) that it seemed worth while to say anything about this formally ; and I only do so now because with all the respect due to so distinguished an Orientalist, it does not seem to me that Dr. Winckler's interpretation satisfies all the conditions of the problem.

What I hope to be able to do in the present paper is, first, to establish a case for the general credibility of the list, from its lower end up to the lacuna which mars its middle sections; next to attempt to find a fixed chronological point in the part of the list which comes above and before the lacuna; and then, with this basis, to try both to fill the lacuna approximately and to explain its origin.

\section*{§ 1.-The Origin of the List of Thalassocracies.}

The List of Thalassocracies comes down to us in a passage in the Chronicon of Eusebius. \({ }^{2}\) Eusebius ascribes it expressly to Diodorus; and as it is known that Diodorus dealt with the period which it covers in his lost Seventh Book, the excerpt is to be found printed among the fragments of that book in the Didot edition. It is also printed, for the reason which will appear directly, among the fragments of Castor of Rhodes, at the end of the Didot Herodotus. \({ }^{3}\)

The existence of such a list of Thalassocracies is plainly presumed at

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\({ }^{1}\) Leipzig (Hinrichs), vol. 7, part 2, 1905.
\({ }^{2}\) Pp. 168-9 in Mai's edition ; p. 226 in Schoene \({ }^{\prime}\) s.
\({ }^{3}\) Iam inde ex Diodori scriptis, breviter, de
temporibus Thalassocratorum qui mare tencbant.
Post belhum Troianum mare obtinuerunt etc. etc.
...usque ad Alcxandri (sc. Xerxis) trans missionem.
}
the end of Diodorus v. \(84^{4}\) But the following books are lost, and we are dependent on other sources than the text of Diodorus for the details of the period which follows.

That Diodorus took this list from his contemporary, Castor of Rhodes, as supposed by Bornemann, \({ }^{5}\) is possible; though Wachsmuth, for example, doubts it. \({ }^{6}\) But this does not follow the document appreciably further back; and Eusebius at all events says he got it from Diodorus.

Castor however is quoted by Suidas as having written on the Thalasso-
 \(\dot{\epsilon} \nu \beta \iota \beta \lambda\) io七s \(\beta^{\prime}\)-apparently a double-barrelled treatise, of which one half dealt with the land-history of the East, and the other with the water-history of the Eastern Mediterranean. There are plenty of fragments of the Babylonian part; but of the other no direct quotation survives. We are consequently not in a position to say whether Castor's list was of his own composing, or whether, as in the case of the Babylonian chronicle, he abridged and compiled from identifiable sources.
 Carthage by Polybius, \({ }^{7}\) and of pre-Achaean Paros by Apollodorus. \({ }^{8}\) The reckoning of Thalassocracies was also carried up earlier than the Trojan War, as is shown by the case of Paros just quoted ; by that of pre-Achaean Carpathos in Diodorus v. 54 ; and by the still earlier case of Minos. A similar phrase is used also by Strabo about Chios; \({ }^{9}\) and again about Polycrates, \({ }^{10}\) probably in reference to the same thalassocracy of Samos as appears in the systematic List. Local thalassocracy, like that of Sinope in Pontus, \({ }^{11}\) illustrates perhaps a wider use of the word ; but perhaps may be brought into comnexion with the Phrygian thalassocracy in our List. \({ }^{12}\) But the proper sense of the word seems to be clear: a state was said \(\theta a \lambda a \sigma \sigma o \kappa \rho a \tau \hat{\eta} \sigma a \iota\), if it practically 'ruled the waves' for a period of years: the circumstances under which 'sea-power' in this sense passed from one state to another might vary; but posterity might without difficulty lay its finger on this or that occurrence as marking such transferences of sea-power; and it was probably in some such rough-and-ready way as this that our list came into existence originally.

\section*{§ 2.-The Date of the Composition of the List.}

Another passage of Strabo throws a little light on the circumstances under which the attention of scholars, and others also, had been imperiously

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 \(\pi \lambda \in i ̂ o \nu ~ \grave{\epsilon \theta a \lambda \alpha \tau т о к р а ́ т \eta \sigma \alpha \nu, ~ к а l ~ \tau \hat{\omega} \nu ~ К ข к \lambda \alpha ́ \delta \omega \nu}\)






 Xpóvors àvaүpáчoj๘є \(\nu\).
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\({ }^{5}\) De Castoris chronicis Diodori Siculi fonte ac norma, Lübeck, 1878.
\({ }^{6}\) Einleitung, p. 102, n. 3.
\({ }^{7}\) i. 7. 6, ii. 16. 17.
8 ii. 5. 9 .

 10947 в.
\({ }^{11}\) Strabo, 821 A.
\({ }^{12}\) See p. 123.
}
directed to the problems of sea-power. For he uses the word \({ }^{13}\) to describe the reign of terror maintained by the Cilician Pirates until their suppression by Pompeius. The sudden revolution which Pompeius effected could not but strike the imagination of historians; and may well have suggested, particularly to a Rhodian scholar, the task of reckoning backwards the sequence of sea-powers, so far as tradition served; if only for the opening paragraphs of an \(\dot{\epsilon} \pi i \delta \epsilon \iota \xi \iota \varsigma\), a laus Pompeii Magni. The services rendered by their fleets to both sides in the Civil War were a further object-lesson in the same department of history ; and it is with the triumph of Julius Caesar, that Castor's great chronography seems to have ended. There is therefore some slight probability that the List of Thalassocracies may actually have taken its final shape in the generation of Castor and Diodorus. It is also not improbable, if the subject was thus 'in the air,' that more than one writer may have tried his hand at codifying these materials : in fact, that both Castor and Diodorus may have been merely gratifying a current fashion in constructing each his own List of Thalassocracies. That there was diversity of opinion, for example, as to the position of the Rhodians in the list, is clear from the statement of Syncellus; \({ }^{14}\) and it is not impossible that the Rhodian sympathies of one of the compilers may have been responsible for this discrepancy.

But the List of Thalassocracies, as it stands in Eusebius' excerpt from Diodorus, and as its contents are incorporated here and there in the Eusebian Canon, presents two features which suggest an earlier and more instructive origin. It begins with the fall of Troy, ignoring Minos, and the pre-Achaean thalassocracies recorded by Diodorus himself, and others; and it ends with the Persian War, ignoring all subsequent sea-powers from the date of the 'crossing of Xerxes'; that is, from the point at which Aegina had to make up its bitter feud with Athens, and acquiesce, as the event proved, in a thalassocracy which was ultimately Athenian. The list thus covers exactly the period reviewed by Thucydides in his introduction to the history of the greatest of Greek thalassocracies, the Delian League ; and the allusive character of Thucydides' survey, the emphasis which he lays throughout on the revival of sea-power as a symptom of the growth of Hellenism, and his selection of Samos and Phocaea \({ }^{15}\) as types of early Greek advancement between these terminal points, suggest that he presumed his reader's familiarity with some such catalogue of sea-powers, as a rough outline or conspectus of the main subdivisions of the period.

The procedure of Thucydides does not of course prove in the least that the list preserved by Eusebius is of fifth century date ; though the mention of Samos and Phocaea favours such a possibility. But it does suggest strongly that in the Periclean Age some such list was extant; and the circumstances of the Delian League, and the concentration upon Periclean Athens of so many converging lines of historical development, provide iust such a provo-

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\(13: 980 \wedge, 13\).
16 See 1. 90 , below.
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 n \(\boldsymbol{\nu}\) 。
}
cation to compile such lists, as the events of Castor's age provided, for its rehabilitation and revision later on.

Now we are fortunately situated for testing, after a fashion, the antiquity and the historical value of the extant list. Nothing is more characteristic of Diodorus, in a general way, than his dependence upon fourth century sources, and in particular upon Ephorus and the Isocratic school of historywriting; and nothing is more characteristic of this school than its systematic revolt against fifth century tradition. Thucydides in this respect stands right upon the dividing line; regretting the 'vulgar errors'-not always so erroneous either-of Herodotus and other 'ancient authorities'; but protesting no less vigorously against the slipshod rhetoric which he foresees in the 'new school.' But Herodotus is as pre-Thucydidean as he is pre-Socratic. Though for him also the Trojan and the Persian Wars open and close a great period of the world's history, and though his life and mind are wholly of the generation which was first capable of making such a retrospect as the List of Thalassocracies presents, there is no trace, from beginning to end of his book, of any such scheme of classification by sea-power, or even of any theory of sea-power such as the List of Thalassocracies presumes. On the contrary, on the one occasion when he mentions the word, it is to contrast


 to suppose that Thucydides, in selenting, for mention along with Samos, Phocaea, its immediate predecessor (as it happens) in the Eusebian list, may be gently reproaching Herodotus for another of his 'vulgar errors.'

Now if, as seems probable, there was a fifth century 'List of Thalassocracies,' and if Herodotus did not know of it, while Thucydides apparently did, we are in a position to fix the date of its composition within fairly narrow limits; for Herodotus was in Athens, and on the fringe of the Periclean circle, as late as 444 b.c. or thereabouts; and Thucydides was already getting his materials together and adjusting the perspective of his prologue, in the years immediately succeeding 432 b.C.

Again, if Herodotus did not know of such a list, and was uninfluenced by any Thalassocrat-theory, it is obvious that any data he may have transmitted about any of the states which are included in the Eusebian list will have all the value of undesigned testimony in regard to the question whether the extant list represents genuine fifth century tradition. If it disagrees with the Herodotean data, we shall have strong grounds for assigning it to a period after the authority of Herodotus had become discredited, that is, to a date not earlier than the end of the fifth century. If, on the other hand, it agrees with the Herodotean data, it will be clear that it has not undergone any serious modification at the hands of Ephorus or any other of the normal sources of Diodorus ; and we shall have important confirmation of the suspicion suggested by its aposiopesis at the 'crossing of Xerxes.' If finally we find

that its contents, though consistent with the fifth century data, are inconsistent with the statements of Diodorus and other post-Ephoran writers; that, in order to make them fit the later systematic chronologies, the list had to be literally dismembered ; and that, even so, its data had to be frequently ignored ; then we shall be in a very strong position indeed for asserting that the extant list represents essentially a genuine fifth century document, of Periclean date and authority; and we shall be supplied with a new and (l think) very valuable instrument for recovering the fifth century view of the earlier history of Greece.

The objective value of the information contained in the list is of course a separate question. It cim only be decided by comparison with independent chronological data; but though our conclusions differ in detail, I venture to think, with Dr. Winckler, that our knowledge of the history of the Nearer East is by this time sufficiently accurate and full to justify a renewed attempt to test the historical value of this list, the only chronological document, other than personal genealogies, which attempts a perspective of the 'dark age' of Grece. The last serious attempt to interpret the list was that of Dr. Goodwin in a brilliant little paper printed in 18555; and it will be seen from what follows that while the method of enquiry remains the same, the new data, which have become available meanwhile, put a very different face on the matter.

> § 3.-I'he T'oxt of the List, aud its use by E'uselius.

Our authorities for the list, and the data which they preserve, are tabulated on p.88. The notes and criticisms which follow are intended to throw some light on the relation in which these authorities stand to one another, and to justify certain inferences as to the light in which Eusebius and his followers interpreted the list, and as to the state of the text of it in Eusebius' time and earlier.

Columns \(A B C\) give the substance of the list as it is quoted from Diodorus in the Armenian version of the C'hronicon of Eusebius. \({ }^{17}\) The introductory words are as follows: Iam inde ca Diodori scriptis, breviter, de temporibus Thalassocratorum qui mare tenebant. P'ost bellum Troianum mare obtinuerunt . . . : then follows the list of seventeen names; or rather sixtcen, with a lacuna in place X, where the Canon, as we shall see (p. 91), inserts the name of the Cariaus. Following the name of the Aeginetans in place XVII are the words 'usque ad Alexandli transmissionem.' The word rendered Alexandri is taken by all the editors as a scribe's blunder for Xerxis; and the phrase is obviously intended to refer to the Persian War of 480-479 1.C. The Armenian orthography presents no serious difficulty : Pclczgii, Phynikii, Mclesseni, and Acneretrii are easily identifiable with the help of the corresponding entries in the Canon (v. below).

It is important to note that in the column which gives the duration, in

\footnotetext{
\({ }^{17}\) I use throughout Schoene's edition of Eusebins, 1875-86.
}
years, of each 'sea-power' the numerals are missing in places VIII, IX, X, XI, and again in place XIII; for we shall see reason to believe that these represent a real and early lacuna in the list, which at its middle point involved damage to the name-column also, and led to uncertainty as to the reading Cares in place \(\mathbf{X}\).

Column \(D\) gives the evidence of Syncellus, who inserts, at their proper places in his chronology, certain of the same names and numerals, and also the numerical order of each name as given in Col. A.

In places II, III, IV, V, XII, XV, XVII he gives complete information agreeing in all points with Eusebius' Excerpt. But in places I, VI-XI inclusive, and XIII he omits the numerals; and in places IX, X, and XI even the names, just where the corruption in Eusebius is deepest. He also presents a few aberrations, which are worth notice, as illustrating certain difficulties of transmission, which are peculiar to such a list as this.
(1) In place IV he notes the Rhodians; but adds \(\kappa a \tau a ̀\) á \(\delta \in \tau \iota v a s ~ \pi \epsilon ́ \mu \pi \tau o t\). This may be a real variant; but it may also be the expansion of a dittograph of the \(\pi \varepsilon \mu \mu \pi \tau o \iota\) of place V , immediately following.
(2) That the latter is more probable is suggested by his comment on the Phrygian numeral in place V, where he gives, as well as the Eusebian numeral 25, the variant 'or 6.' Here also we seem to have the ordinal numeral of place VI carried up into the sentence before.
(3) In place XVI, for the 15 years of the Eretrians, he gives 7 years. But note here also that in his copy the Greek numerals \(\imath, \iota \varsigma, \iota \in, \iota \zeta, \iota\) came in close proximity; and a very slight confusion among these would bring a \(\zeta\), unaccompanied by an \(\iota\) into the place where it stands in his version. The numeral \(\zeta(7)\) for the Eretrians is in any case unsupported, and is also inconsistent with the external evidence, as we shall see later on. \({ }^{18}\)
(4) In place XIV, for the 2 years of the Lacedaemonians he gives 12. Here also the presence or absence of a single stroke \((\iota=10)\) makes all the difference; and the true figure is the only one out of the last tweive in the list, which does not thus begin with \(\iota\); but though Syncellus' variant is unsupported, it may very likely have originated in an attempt to solve a real chronological difficulty, which we shall have to consider later on in its proper place. \({ }^{19}\)

Column \(E\) gives the entries from the Canon of Eusebius, so far as it is preserved in the Armenian version. The numerals opposite the sea-powernumerals of Cols. C D are the sea-power-numerals wherever they are given in the margin of the Canon. Wherever they are so given they agree with those in the Excerpt ; but they are missing, just as in the Excerpt, in places VIII, IX, and XIII; and in places VIII and IX even the names are omitted. In place XI, where the Excerpt is silent, one manuscript only gives the numeral 96, an obvious attempt to fill the gap by calculating the difference between the initial and the terminal year \((1441-1345=96)\).

A curious error of this version, in place XIII, in the entry respecting the Samians, gives us one more piece of evidence. In place of the ordinal numeral

XIII, the numeral XVI is given, which makes nonsense as it stands. Now this cannot have arisen from any mere contamination with numerals above or below it, for none of these provides the materials for such a mistake. But we shall see, when we come to consider the historical evidence, that the Samian sea-power probably began with the rise of Polycrates, and this event is dated by Eusebius to the year 1484 ( \(=532\) B.c.) and by Jerome to 1487 (v.l 1485 : i.c. to 531 or 529 B.c.), and that its close is dated by Eusebius to 1503 ( \(=513\) B.C. : Jerome is silent). Consequently the duration of the Samian seapower if estimated by subtraction would amount to either 17 years or a little less. How much less, we cannot tell precisely in the absence of the terminal figure in Jerome's version of the Canon. It is possible therefore that this numeral XVI, standing where it ought not, represents an attempt to calculate the duration numeral of the Samians by simple subtraction, in the way already described. We shall see further on, however, that the numeral 16 or 17 in this place is very probably correct ; and it may even have stood on the edge of the lacuna in the original of Eusebius' Excerpt.

The places III-IV and VI-VII fell on pages which are missing altogether in the Armenian version; these gaps however only cover the years 1031-1099 and 1167-1120; and so cannot be invoked to explain the silence of this version in places VIII and IX. This silence therefore is due to the same lacuna in the Excerpt as is exhibited in our text of it ; and we may therefore infer that this lacuna goes back to Eusebius' time, and very probably existed in his copy of Diodorus.

On the other hand, in place X , where the Excerpt is silent even in the name-column, the Canon gives the name of the Carians, and the numeral 61. This numeral may have arisen by a process of subtraction like that suggested above in the case of the Lesbian numeral ; but the correspondence is not quite exact, for the difference of years only amounts to 59 . We shall have to return to this Carian numeral at some length, when we come to compare the external evidence. \({ }^{20}\)

Column \(G\) gives the equivalents, in years B.c., of the Eusebian dates which are given under the 'year of Abraham' in the Canon and in Col. E. Between these dates I have given, in italic numerals, the actual intervals, obtained by subtraction, wherever adjacent dates are preserved. From a comparison of these intervals with the duration numerals given in the Excerpt (Col.C) and in Syncellus (Col. D), as well as in the margin of the Canon (Col. \(E\).), it is clear that the two sets of data are quite independent of one another. The only case in which they agree exactly is that of the corrupt Lesbian numeral in place XI, and here borrowing is evident; only in three cases do they approximate even within a year or two, as in places X, XII, and XIII, and in both X and XII the Excerpt is deficient likewise.

It seems to follow from this that, so far from accepting the list which he took from Diodorus as a continucus record of events from the Trojan War to the Persian War, Eusebius regarded it merely as a collection of detached
statements as to the length of sea-power enjoyed by each state separately, while constructing his general chronology on quite different lines. The result is that sometimes he placed consecutive thalassocracies so as to overlap in his Canon, as in the case of the Jydians, who held sea-power 92 years, yet were succeeded by the Pelasgians after only 80 ; sometimes there was a gap between them; for example, the Phocaeans had sea-power for 44 years, but were not succeeded by the Samians till after the lapse of 45. In the case of the Eretrians, who held sea-power for 15 years, but are given in the Canon 26 years, from 511 b.C., there has obviously been a blunder, caused by the total omission of the Naxians, whose initial date, and term of 10 years, have consequently been ascribed to their successors in the list. It is possible that this may also be the cause of the error of Syncellus in place XIV, if he detected the mistake about Eretria, but credited the spare 10 years to Lacedaemon, instead of allowing for the Canon's omission of the Naxians. \({ }^{21}\)

Column \(F\) ' gives the dates (in 'years of Abraham'), and the duration numerals, which are preserved in Jerome's version of the Eusebian Canon. Like Syncellus, Jerome gives no numeral to the Lydians; he gives 19 years to the Thracians instead of \(79 ; 25\) (with a v.l. 20) to the Phrygians; and 23 (with v.l. 32) to the Cyprians instead of 33 . He omits the Egyptian and Carian numerals, but gives 18 years to the Milesians, and 68 to the Lesbians. For all below this point he is silent, except that he gives 20 years to the Aeginctans instead of 10 .

From all this it is clear that while his copy of the Canon had similar entries to those of the copy which underlies the Armenian version of Eusebius, and though his omission of the numerals for Egypt and Caria suggests a similar imperfection to that which we have seen to exist in the Eusebian Excerpt, either he has reproduced his entries very carelessly (as is suggested by his variant numerals for Thrace, Cyprus, and Aegina, and by his silence as to Lydia, and in places XII to XVI), or he had access to some other source, such as that from which he derived his numerals for Miletus and Lesbos.

In the case of Miletus there is the more reason to suspect this, becanse the numeral 18 does not agree with the subtraction numeral (which I have tabulated in Col. H) ; nor can it easily be derived by corruption from any adjacent numeral. \({ }^{22}\) It probably represents, therefore, a real contribution towards filling the lacuna in the Excerpt; and, as we shall see presently (pp. 112-5.), the numeral 18 has historical probability to support it.

Column \(H\), which serves the same purpose in Jerome's case as Columnn \(G\) in that of Eusebius, shows still more clearly how arbitrarily the compilers of the Canon, or Canons, pulled to pieces the list given in the Excerpt, and how

\footnotetext{
21 This incident is of interest also, in view of Schoene's view that Syncellus used the Canon rather than the Chronicon. Here at all events he has used the Chronicon.
\({ }^{2}\) The only possibility in this direction is that the Milesian ordinal IX may have been
}

\footnotetext{
misread \(\mathbf{1 H} \mathbf{H}^{\prime}(=18)\). For a similar confusion between Greek and Latin words and symbols see \(\% \cdot 105\), below, and Jerome's own corruption of \(\bar{\alpha} \theta \lambda a \mu^{\prime}\) into Athlamos or Athlas mons (Canon, 1. 181, h); see Schoene, Gött. Gel. Anz. 1875, pp. 1496-7.
}
freely they ignored its purpose as a continuous chronological outline. Not only do his intervals differ from those of the Armenian version in every case but that of the Rhodians in place IV, where alone all authorities agree in repeating the 23 years of the Excerpt; but, wherever his numerals differ, they differ more from the numerals of the Excerpt than do the intervals of the Armenian text. Whether the reason is, as Schoene suggests in a recent essay; that Jerome was using a later and maturer edition of the Eusebian Canon than that on which the Armenian version is based, or whether these variations are Jerome's own contribution to chronology, the conclusion to which they point is the same: namely that Jerome had no more idea than Eusebius of treating the List as an organic whole. He was simply quoting extracts from it under the title of the several states which he names ; but his Canon-dates for the sea-power of those states are derived from quite different. sources.

The dates given by Jerome differ, also, from those in the Armenian version, in every case but that which divides the Carian sea-power from that of Lesbos, i.c. 1345 ( \(=671\) B.c.). Above this point, and apparently as far back as the date between Rhodians and Phrygians ( \(1113=903\) B.C. in Eusebius) \((1123=893\) B.C. in Jerome \()\), the dates given by Jerome would seem to have been ten years later: probably because he allows only 49 years instead of 59 to the Carians in place X. Though the Armenian version is wanting in place IV, the evidence of Syncellus as to the lost Eusebian text, and the circumstance that here alone all authorities agree on an interval, and a thalassocracy, of 23 years, suggest that the same relations existed between the tiwo Canon-dates here also.

But above this there is chaos. In place III Jerome assigns no less than three separate dates to the initial year of the Thracian sea-power. Two of these (AA 1050 and AA 1055) fall within a missing page of the Armenian; but the third and earliest does not, and receives no support, even allowing for a ten years' discrepancy, from the Armenian text. Nor do any of Jerome's intervals ( 92,41 , or 46 ) correspond either with his duration-numeral (19) or with that of the Armenian version; and these discrepancies are in no way explained by those in places II and I. Nor,-and this is most curious of all,though the Excerpt in its present form plainly dates the Lydian sea-power post bellum Troianum, does either the Armenian version or Jerome make it begin from the Fall of Troy; but Jerome ten years later, and the Armenian sixteen.

Below place X, Jerome, as we have seen, gives no data until AA 1508 ( \(=508\) B.c.), to which he assigns the beginning of the Aeginetan sea-power. Now, as he assigns 20 years (instead of 10) to the Aeginetans, he must have put their loss of sea-power in 488 B.c. Yet this is not, on any reckoning, the date of the Xerxis transmissio. The Armenian version, on the other hand, though giving the Aeginetans only 10 years, as in the Excerpt, dates the beginning of their sea-power from 485 B.C.: its end therefore cannot fall earlier than 475 b.c. ; yet this date is no more that of the Xerxis transmissio than is 488 B.c. Here again, therefore, the plain chronological statement,
which concludes the Excerpt, has been ignored in both versions of the Canon alike.

All this looks hopeless enough ; but it looks so, as we have seen, simply because of the view which both the Armenian text and Jerome chose to take of the character of the information in the Excerpt. We have seen, however, that apart from two discrepancies on the part of Jerome (in places III and XVII), at points where fortunately the Excerpt, Syncellus, and the Eusebian Canon are agreed, the Excerpt which each had before him was substantially the same, so far as they have quoted it; and also that all copies of it contained much the same lacuna round places VIII-XIII.

> § 4.-The List as a Scheme of Chronology.

What we have next to consider, therefore, is whether these late writers were right in their view of the meaning of the list ; or whether they would not have been wiser to have taken the list as an organic whole, so far as it goes, and as an attempt to classify the centuries usque ad Xerxis transmissionem by dead-reckoning backwards from this terminal event.

If this was the real character of the list, it ought to reveal itself on a comparison of the data contained in it with such evidence as to the sequence of events as can be derived from other sources ; and if, as I have suggested, it bore this character as early as the fifth century, then it ought to stand comparison with other fifth century sources; that is, for practical purposes, with the narrative of Herodotus. What I propose to do next, therefore, is to make this comparison, beginning at the lowest point in the list, and working backwards as far as either the list or Herodotus will serve us. \({ }^{23}\)

But obviously the existence of the great lacuna from place VIII to place XI, and its probable continuation in place XIII, precludes all possibility of dead-reckoning backwards from the dates below the lacuna to those above it. On the other hand, if it should be possible to find any fixed point among the dates above the lacuna, it ought to be possible to build up provisionally a reconstruction of the lost dates. The problem, therefore, with which we are confronted is really threefold. First, we have to determine, as I suggested to begin with, by comparison with fifth century sources,-that is to say, practically, with Herodotus,-whether the dates below the lacuna are real dates, or at all events whether they represent fifth century tradition about leading events in the sixth century. If they do not, then the list may be set aside as neither better nor worse than any other part of the information which comes to us, unascribed, through Diodorus. But if they do,-if, that is, the

\footnotetext{
\({ }^{23}\) I have purposely confined myself in the text to purely Herodotean evidence; but, for completeness only, have added later evidence in the footnotes. It does not however contribute much. The whole question was admirably handled long ago by Prof. W. W. Goodwin, De potentiae veterim gentium maritimarum epochis
}

\footnotetext{
apud Eusebium, Göttingen, 1855. I owe much, in what follows, to this brilliant essay, though I only became acquainted with it when revising the present paper for the printer. It is only where it relies upon non-Hellenic history that it is antiquated by subsequent discoveries.
}

List represents a lost fifth century original, then it will be worth while to go on to attack the second problem. Here, though for Egypt and Phoenicia Herodotus will still be of importance, the comparison will be mainly with a different class of testimony, namely the contemporary history of the eighth and seventh centuries as it has been recovered from the annals of Assyria and New Babylonia; and it is here that we shall have to acknowledge the suggestive hint of method supplied by Dr. Winckler's paper. I'hirdly, it is only if we are able to establish the historical character of the List for this remoter period, that it will be worth while to attempt either to fill up the lacuna which intervenes, or to discuss the problems raised by the discrepancy between the heading of the List as it stands, and the commonly received opinions about the period which succeeds the Trojan War.
\[
\text { § 5.-The Sea-power of Aegina. 490-480 B.c. }{ }^{24}
\]

The lower members of the List, as far back as the lacuna, have obviously a general appearance of authenticity. The sea-power of Aegina lasts ten years, and extends usque ad Xerxis transmissionem ; and this date ought to mean, on the current reckoning, the year 480. But actually Eusebius reckoned from 475, and consequently placed the beginning of the Aeginetan sea-power in 485 : while Jerome put the beginning of his twenty-year period in 508 , and consequently must have reckoned it to end in 488 . Now if the List really started from 475, it would indeed have the advantage of starting from the point at which the greater Thalassocracy of Delos superseded all others; and it was probably some such consideration as this which influenced Eusebius in his selection of his terminal date. But even though the Aeginetans received the prize of valour at Salamis, \({ }^{255}\) it is difficult to see how the five years which followed could be credited to them: for Athens had already a far larger number of ships at Salamis; and the command of the panHellenic fleet was continuously in the hands either of a Spartan or an Athenian.

There are two further reasons why the year 480 is inevitable as a starting-point in our back ward reckoning. First, by no possibility can a thalassocracy of Eretria (in place XVI of the List) be prolonged after the destruction of that city by Datis and Artaphernes in 490. Second, it was apparently very close to the year of Marathon, that the death of Cleomenes, and an anti-Athenian reaction in Sparta, untied the hands of Aegina, and led to the agitation for the return of the bostages from Athens. \({ }^{26}\) The result was the resumption of
 the hopes of every medizing state and faction in Greece were raised high by the coming of the Persian expedition. This áкท́риктоs тó \(\lambda \epsilon \mu\) os must have

\footnotetext{
\({ }^{24}\) Henceforward, for brevity and conveuience, I omit the 'years of Abraham' and give all dates in years 3.c.
}

\footnotetext{
\({ }^{2}\) Hdt. viii. 93.
* Hdt. vi. 85-87.
\({ }^{27}\) Hilt. ví. 94.
}
lasted nearly twenty years in all ; but though after 490 Athens is upholding the cause of Eretria (deceased) under extreme difficulties, yet as we approach 480 it is Athens who is preparing for a decisive struggle with her rival. At the moment of Xerxes' expedition the situation was most critical-it was the greatest quarrel in all Greece, as Herodotus says \({ }^{28}\)-and how difficult it was for Aegina, we may judge from a comparison of the two squadrons at Salamis: Aegina brought 30 ships, Athens 180. \({ }^{29}\)

We may therefore take the year 490 as the year of the transference of thalassocracy from Eretria to Aegina; and reckon the ten years assigned by the List to Aegina as running, in the words of the Excerpt, usque ad Xerxis transmissionem. We may infer, also, that in the mind of the compiler of the List the five years from 480 to 475 were either reckoned as an interregnum, or were assigned to the Thalassocracy of that Pan-Hellenic League which Delos and Athens claimed later to perpetuate. We have thus a sure foundation in the double dating 499-480, and can safely proceed to build upon it so far as the List will allow.

> § 6.-T'he Sect-power of Eictria. 505-490 в.c.

The Eretrians 'rule the waves' for fifteen years, according to Eusebius. They must therefore have begun not later than 505 B.C. Now though Athens sent the larger force to Ionia in 500 , Herodotus lays some stress on the contingent from Eretria, \({ }^{30}\) and emphasizes the pictas which bound Eretria to Miletus, as the real reason of their mission. Eretria therefore was of some peculiar importance in Greek waters at the time of the visit of Aristagoras ; and it is not necessary to scratch very deep into the phil-Athenian veneer of Herodotus' history to discover that it was Eretria, as the event proved, \({ }^{31}\) and not Athens, which from the Persian point of view was the primary objective of the expedition of 490 . What the Persians could not well foresee was that, thanks to Themistokles and some others, the little finger of Athens would be thicker than the loins of Eretria.

Now the date 505, which, according to the reckoning of the List, is the initial year of the Eretrian sea-power, falls a year or two later than the last act of the Peisistratid drama in Athens; and it was in this last act that the
 with the result which Herodotus describes as the Double Battle on the Euripus. Chalcis fell, and received an Athenian cleruchy; and all this happened about the time of the reforms of Kleisthenes, and a little before the

\footnotetext{
23 Hat. vii. 145.
\({ }^{9}\) Hut. vii. 46. Compare Strabo, 375. av̈тท


 Мербька́.
\({ }^{30}\) Hdt. v. 99.
\({ }^{31}\) See Goodwin, l.c. 67, esp. Hdt. vi. 43.
}
 \(94,98,100,101\). He notes also that when the Athenians retired from Ionia in Hdt. v. 103, there is no mention that the Eretrians retired too ; and infers, not improbably, that they stayed. They did not, however, fight at Lade.
\({ }^{32}\) Hilt. v. 74. 77.
visit of Aristagoras. We have no precise date for the 'Double Battle'; but three points are clear: it fell somewhere between 508 and 500 ; it involved the cooperation of sometorly's fleet for the passage of the Euripus; and it had the effect of paralysing for a generation the agelong rival of Eretria. I think we can hardly doubt that here also we have the glowing Athenian version of an affair which had more than one aspect; and that what the \({ }^{\prime \prime} \theta \nu \in a\) Boı \(\omega \tau \hat{\omega} \nu\) inscription really commemorated was an event, which an Eretrian would have described as the establishment of Eretrian sea-power, and the reversal of the verdict of the Lelantine War. At all events Herodotus' narrative and the date 505 for the Eretrian Thalassocracy shed a very interesting light on one another, and increase the probability that the numeral 15 in the Excerpt is right, and the 7 of Syncellus wrong. \({ }^{33}\)

Note also that it was very shortly after 505 , that Thebes, deprived of the aid of Chalcis, began to negotiate for that of Aegina against her amphibious enemy; and shortly after this, again, that the \(\dot{\alpha} к \dot{\eta} \rho \cup к \tau о s ~ \pi o ́ \lambda \epsilon \mu о s ~ b e g a n . ~\) The effect of the latter was to cut off Athens from Eretria, so far as the Sunium-route was concerned, and to retard by ten years or more the rise of an Athenian sea-power; but inevitably, also, to throw Aegina's Saronic rival, Corinth, into the most benevolent of neutralities towards Athens. How far is all this the consequence of the entanglement of the newly-won sea-power of Eretria in the affairs of Aristagoras of Miletus, a very poor imitation of the Thrasybulus who was the 'friend of Periander' of Corinth, nearly a century before? \({ }^{34}\)
\[
\text { § 7.-The Sea-power of Naxos. } 515-505 \text { в.с. }
\]

The predecessor of Eretria, however, is not Chalcis, but Naxos, with a sea-power of ten years' duration. Herodotus has not much to say in his history about Naxos; but all that he does say is entirely to the purpose.

The proximate cause of the Ionic Revolt, he says, was a recent change in the balance of power in the Cyclades. The maұєis of Naxos had been expelled ; \({ }^{35}\) and this offered, from the point of view of Aristagoras, a favourable opportunity for establishing with their aid a Persian protectorate over the islands. Clearly, too, the same events which had expelled the maxeîs had also favoured the democratic party in Naxos itself. What were these events, and how do they bear upon the transfer of supremacy at sea from Naxos to Eretria?

Of the previous history of Naxos we learn from Herodotus only this: that one of the consequences of the establishment as rúpavpos in Athens of Peisistratus, whose immediate base of operations had been in Eretria, \({ }^{36}\) had

\footnotetext{
\({ }^{33}\) Goodwin, l.c. 68 refers to this same success the great Eretrian \(\pi o \mu \pi \dot{n}\) described (without date) in Strabo 448. The passาge certainly includes a reference ( \(\dot{\epsilon} \pi \hat{\eta} \rho \chi o v\) ) to the establishment of a regular hegemony over islands : and, in particular, over Andros, which
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had been under Naxos recently in 501; see
Hdt. v. }31\mathrm{ and n. }42\mathrm{ bolow.
* Hdt. i. 20 v. 92, and p. 111, be.ow.
35 Hdt. v. 30.
36 Hdt. i. 61.

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}
been the establishment of his protégé Lygdamis as túpalvos of Naxos; \({ }^{37}\) and presumably the expulsion of a more or less oppressive oligarchy from the island. And now we find that shortly before 500 the \(\pi a \chi\) єīs or oligarchy of Naxos had been expelled by a democratic rising, and were trying to get help from Miletus, which, though apparently phil-Eretrian, had been since the days of Cyrus consistently loyal to Persia. \({ }^{38}\) Now unless the Peisistratidae were installed, or at least expelled, very much later than is commonly supposed, these two data can hardly refer to the same crisis in Naxos. But if they do not, then we are authorized to infer a third fact: namely the collapse of the ivpavpis of Lyglamis, and the re-establishment of a government of maұєis in Naxos: for unless they had returned to power in the interval, they could not have been expelled shortly before 500 , in the circumstances stated by Herodotus. We get, consequently, the following outline scheme for the history of Naxos in the sixth century:-(i) oligarchic régime, lasting down into the Peisistratid period, and presumably not phil-Eretrian; (ii) the tupavyis of Lygdamis, under Peisistratid, that is phil-Eretrian, protectorate ; (iii) oligarchic counter-revolution, presumably not much earlier than the collapse of the Peisistratid tyranny, and probably anti-Eretrian ; (iv) renewed democratic activity, and appeal of the emigres, as usual, to Persia, through the intermediation of Persia's chief naval dependency in the Aegean, namely Miletus. We begin to see some light on the circumstance that Aristagoras simultaneously divests himself of his philo-Persian \(\tau v \rho a \nu \nu i s\), and secures for a democratic movement in Miletus the sympathy and the assistance of Eretria.

All this suits very well the data supplied by the List. The fall of Lygdamis, and the return of the oligarchs to Naxos, if it occurred about 515, would come to us as an early symptom of that Peisistratid decline which came to a crisis somewhere about 510 . And in 505 , or soon after, one of the first results of the fall of Chalcis was to set Eretria free to support its ancient protégés, the Naxian \(\delta \hat{\eta} \mu o s\), in a second expulsion of their oligarchy.

Finally, to clinch the connexion between Naxian sea-power and the Naxian oligarchy, let us return to the advantages held out by these \(\pi a \chi\) eis as the price of the support of Persia. Naxos, they say, has 9,000 hoplitesAthens had only 13,000 at the height of her power-каi \(\pi \lambda о i ̆ a ~ \mu а к \rho a ̀ ~\) \(\pi o \lambda \lambda a^{39}\); and enjoys a hegemony over Paros, \({ }^{40}\) Andros, \({ }^{41}\) and the rest of the Cyclades. \({ }^{42}\)

\footnotetext{
\({ }^{37} \mathrm{Hdt}\) i. 64.
\({ }^{38}\) Note in passing that rupavyls within the limits of the Persian Empire meant something totally different politically from rupavvis in a free Greek \(\pi \delta \lambda\) bs. It was in fact essentially anti-democratie, a forcible oligarchy-of-onc. Hence the Ionic Revolt begins with a wholesale тира́עขшv катáтauбus and the establishment of iซovouin in Miletus, Hdt. v. 37, 38, and is appeased by a wholesale recognition of бпиократlar, IIdt. vi. 43.
\({ }_{8 y} \mathrm{Hdt}\) v. 30 .
\({ }^{40}\) Incidentally we see here the significance
}
of Miltiades' attempt to mmex Paros, as soon as Athens is beginning to see her way through. her entanglements with Aegina. She is picking up the pieces, as elsewhere, of the Eretrian àp \(\chi \dot{\eta}\).

41 Yet in Strabo, 448 (p. 97, n. 33, above), Andrus is reckoned as a tributary of Eretria. It would obviously be one of the cornerstones of an Eretrian sea-power ; and a considerable \(\lambda h \mu \eta\), in the hands of Naxos.

42 The fract of a Naxian sea-power is admittel also in Jiod. v. 52 : see also Suidas, s.i.


> § 8.-The Sca-power of Lacelaemon. 517-515 1.c.

It is above this point that our serious difficulties begin. The variation of the numeral (2 in Eusebius, 12 in Syncellus) is not hard to explain, for the omission or addition of \(\iota\) in the combination of \(\iota \beta^{\prime}\) is only too easy. But which figure is right?

If we had the Samian numeral, which precedes it, it would be easy to decide: for, as we shall see, we have fairly good evidence for the date of the fall of Phocaea, which gave the Samians their chance, and for the rise of Polycrates, which enabled them to seize it. But the Samian numeral is missing in the Excerpt; and though we shall be able to make out a fairly good case for the numeral 16 or 17 , it is only on the hypothesis that Syncellus is wrong that we are justified in restoring it in the Excerpt. We are therefore thrown back on external evidence mainly, both for the Lacedaemonian and for the Samian sea-power.

If we had any accurate dates in Spartan history during this period, we might be able to piece together the evidence for Spartan sea-power, in a form which would test conclusively the data of the List. But none of the three events which postulate such a sea-power at all, is very precisely fixed. (1) The Libyan expedition of Dorieus \({ }^{43}\) does indeed satisfy the conditions positively. Unless the fall of Sybaris can be displaced from 510, Dorieus' first expedition cannot have set out later than 514 , or earlier than 517 . (2) The expedition of Anchimolius to Attica \({ }^{44}\) is usually put later than 515 ; but it is not precisely dated; Herodotus is much more prone to compress than to stretch his intervals; and we have seen already, in the case of Naxos, that the decline and fall of the Peisistratidae may have been a slower affair than is usually supposed.
(3) The Spartan expedition to Samos causes greater difficulty, and involves once more the chronology of the next state upwards on the list. It presumes a considerable degree of sea-power on the side of Sparta: it was, as Herodotus contends, an elaborate and important affair ; and it is dated by him with some precision: for he says that it occurred during the rupavvis of Polycrates, and about the time of Cambyses' expedition against Egypt. On the strength of this, Lepsius long ago assigned it to 527; which would just bring it within the 12 years given by Syncellus, if reckoned back from 515 ; and Goodwin accepted this date. \({ }^{45}\) But there is no good reason to assign to it on this ground an earlier date than 522 or 521 ; \({ }^{48}\) and Syncellus' variant, if intentional at all, may very well be intended to include this famous incident within the period of the Spartan thalassocracy. But Eusebius' own

\footnotetext{
\({ }^{43}\) Hdt. v. 42.

 their retreat to be in no danger, once they had re-embarked.
}

\footnotetext{
\({ }^{45}\) Lepsius, Berl. Monatsber. May, 1854, p. 217. Goodwin, De potentiac vetcrum gentium maritimarum cpochis apud Eusebium, p. 63.
\({ }^{46}\) Diodorus i. 68 assigus the expedition to 01. 63.3 ( \(=521\) в.с.)
}
date for the Spartan expedition (Ol. \(64.1=519\) B.C.) is itself too high to fall within a two years' thalassocracy, if those years ended in 515 .

We are therefure reduced to a choice of three views. (it) Syncellus may be right, in principle at all events, and the Spartan sea-power may have to be extended upwards. As we have not the numeral for the Samian sea-power, we cannot disprove this : all we can stipulate is that the date shall not be higher than to cover the Egyptian expedition of Cambyses, and that it shall not conflict with any other evidence as to the sea-power of Polycrates.
(b) Or there may have been an interval between the negotiations of Polycrates with Cambyses and the Spartan expedition to Samos. In this case the Spartan expedition may have fallen appreciably later than the expedition of Cambyses, and the real reason of Cambyses' neglect to help Polycrates may have been his death and the chaos into which thereupon tie Persian Empire fell. In this case, it may very well have been the last desperate excesses of Polycrates which brought the Spartans to Samos, at the head of a mixed force of Corinthians and others, as the instrument of the general indignation. If the Spartan expedition were thus the 'beginning of the end' of Polycrates, it may very well have fallen within the reign of Jarius, and not very long before the final suppression of the Samian 'reign of terror.' In this case the so-called Spartan thalassocracy would represent little more than an interregnum (like that of 480-476) during which Sparta nominally Jed a loose confederacy, brought together for a special bit of police work, but dissolved as soon as any member of it, such as Naxos, went its own way and created a genuine 'sea-power.'
(c) Or, thirdly, the Spartan expedition to Samos may not have fallen within the period of the Spartan thalassocracy at all. We must remember that,though successfully landed, and backed by the Corinthians, it maintained the siege only forty days, and retired unsuccessful ; and that a fiasco of this kind could hardly be brought forward as evidence for a Spartan sea-power, even if it fell within the limits of date. This is the view which seems to me preferable: the Spartan expedition shows Sparta aiming at sea-power, and striking a premature and unsuccessful blow at the thalassocrat of the moment. But for the real thalassocracy of Sparta I am inclined to think (1) that we have to wait till Persia, not Sparta, had made an end of Polycrates,-shortly after the accession of Darius, and consequently not earlier than 521 and also not much later-(2) that the List is correct in assigning the two years \(517-515\) to this thalassocracy; and (3) that probably this short-lived sea-power with its sea-borne attack on Athens and its schemes of Libyan colonization is one of the early exploits which gained for the young Cleomenes the reputation of


\footnotetext{
\({ }^{47}\) I had not the opportunity of seeing Mr. Wells' paper on the Reign of Cleomenes, in the last volume of this Journal, until this paper was already nearly completed; and I am not entirely convinced as yet by his arguments, preferring still to place the accession of Cleomenes, on other grounds thau that stated above,
}
in or about 517 . But if the earlier date, 520 , should be maintained, it would have the advantage of permitting us to include the expedition to Samos within the period of activity of that great man : though in that ease it is strange that Herodotus should not have mentioned Cleomenes' name in connexion with it.

We have still to account for the dates \(513-511\) given by Eusebius in the Cunom. But this is simple when we remember that his starting-point was five years too low, and that so far he has only diverged by one year from the deal-reckoning of the Excerpt. Consequently when adjusted to 480 as zeropoint, his dates 513 and 511 become 518 and 516 respectively; and allowing further for the current attribution of the starting-point of the Delian League to 476 not to 475 , we have as the finally revised Eusebian dates exactly the years 517 and 515 which we reached by the previous argument.
\[
\text { \$ 9.-The S'ect-power of S'emos. } \quad 534-517 \text { в.c. }
\]

We are now on the very edge of the lacuna in the Excerpt, and we have only external evidence to go upon ; apart from the vague indications of an original numeral 16, and the Eusebian dates 530-513 (giving the revised dates \(534-517\) ) with their interval of seventeen years.

But the sea-power of Samos is so closely bound up, in ancient tradition, with the personal fortunes of Polycrates that it is natural to turn to the date of his rise as a probable terminus a quo, just as we have had to discuss the date of his fall to establish the terminus ad quem. Now Eusebius gives Ol. 62.1 ( \(=533\) B.c.) as the date of his accession. If this date could be shown to depend on the Excerpt we might have to revise it by four years, like the thalassocracy-dates in the Canon, and assign it to 537 ; but there is no proof of this, and we may probably take this date as independent evidence. We may therefore regard the year 533 as a probable approximation to the first year of Samian sea-power.

On the other hand Samos, in the List, succeeds Phocaea as mistress of the seas. If therefore we can fix the date for the fall of Phocaea, we shall have a precise upward limit for the Samian sea-power. Now Phocaea fell in the course of the Revolt of Pactyas, and the story of this is told by Herodotus in a context which puts it in close relation to the campaign of Cyrus against Babylon, which he gives as the reason for Cyrus' departure from the West, and the signal for the revolt. Now Babylon fell in 538, and we inust consequently place the fall of Phocaea not much earlier than this, and probably somewhat later. We shall see reason, presently, for bringing down the date of the fall of Phocaea as low as we possibly can; but meanwhile let us note that we obtain from the evidence just cited a minimum interval, for the Samian sea-power, of 16 years (533-517) and a maximum of 21 years ( \(535-517\) ) with a certain presumption in favour of the minimum. Now the Eusebian revised dates are 517 and 534 , giving 17 years interval ; the lapsus calami of the Armenian version (p.91) seems to indicate that it was the numeral 16 which stood in the original text of the Excerpt. Also, the case of the Eretrians, \({ }^{48}\) and that of the Phocaeans, indicate a tendency on the part

\footnotetext{
\({ }^{48}\) In the case of the Eretrians the numerals are 15 and 26 , but he has wrongly included
}
in the latter the 10 years of the Naxians, as explained on p. 92, above.
of Eusebius, on any occasion when he adjusts the dates of a thalassocracy by the numerals of the Excerpt at all, to allow a 'year of grace' at the transition.
\[
\text { \$10.-The Sea-ponver of Phocaed. } 577 \text {-533 в.с. }
\]

There is no doubt about the historical character of the Phocaean thalassocracy. Thncydides names Phocaea alongside of Samos-ঠvvatétata yà \(\rho\)
 Carthaginians. \({ }^{49}\) Herodotus, too, knows of the Phocaeans as the earliest of Greek explorers in the West. \({ }^{\text {" }}\)

Of course the whole of this westward activity did not fall within the 44 years of 'sea-power.' Euscbius for example puts the foundation of Massilia in 586, which if true makes it one of the numerous by-products of a very eventful time; \({ }^{51}\) and the phrases used by Herodotus about the early Phocaean voyages can hardly refer to periods subsequent to the 'rush to the West' in the last half of the eighth century. But the policy of transferring Phocaea bodily to its western sphere of influence would have been hardly practicable unless the Phocaean hold on the West was still strong in the middle of the sixth century. All that is in question here, however, is the period during which Phocaea was, for whatever reason, predominant in the Aegean as well ; and for this the conclusive evidence is Herodotus' statement that it was Phocaea, not Samos or Miletus or Lesbos, which was regarded by Harpagus as the \(\cdot\) Hellenic ringleader in the Revolt of Pactyas; and that it was Phocaea which was provided, through the munificence of Arganthonius, with what was thought at the time to be an impregnable defence on the landside. Phocaea in fact was, for the moment at least, the \(\pi \rho o ́ \sigma \chi \eta \mu a\) 'I \(\omega \nu{ }^{\prime} \eta \boldsymbol{\eta}\) in the same sense as Miletus later; and like Cnidus, and Athens afterwards, planned to 'make itself an island;' and very nearly succeeded. Its commercial importance is further attested by the considerate offers of Harpagus \({ }^{52}\); and by the subsequent jealousy of the Chians in the matter of Oenussae. \({ }^{53}\)

As to the chronology of this Phocaean sea-power, if the numeral (44) given in the List is right, the date, 575 , given in the Canon for its beginning, is certainly wrong: for it brings the end of the sea-power down to 531 , several years later than the lowest possible date for the fall of Phocaea, which we have seen to be about 534 . On the other hand the 'revised ' Eusebian dates

\footnotetext{
\({ }^{49}\) Goodwin, l.c. p. 59 brings out well the force of the imperfect tense in this passage.
\({ }^{50}\) i. 163. The later writers fill out the story somewhat. Justin's account is graphic and probably true: nanque Phocacenses, csiguitate et macic terrae cotcti, studiosius mare quam terras exercuere: piscando, mercando, plerımque ctiam latrocinio maris (quod illis temporibus glorive habicbatur) ritum tulerabant. 43. 3. Their loose attachment to the mainland comes out again in Herodotus' story, first, of
}
their voluntary exile after the revolt of Pactyas (i. 164), second, of the fate of Dionysius the Martinet (vi. 17). Compare also Pausanias 10. 8. 6, and Strabo 179.
\({ }^{51}\) see pp. 112-3, below.
\({ }^{52}\) H.dt. i. 164. They recall the tactics of Alyattes against Miletus, two generations before, i. 27 .
\({ }^{53}\) Hdt. i. 165. \(\delta \epsilon \mu \mu a i v o \nu \tau \epsilon s\) Mो̀ ai \(\mu \dot{\epsilon} \nu \quad \epsilon \mu\) -
 тои́тои єїукка.
ivould be 534 and 578 . But even 534 is a 'lowest possible,' and if for any reason the fall of Phocaea had to be put earlier,- -which in the absence of a Samian numeral is quite possible,-either the upper date will have to go back higher than 578, or the Phocaean numeral, well attested as it is, will have to be regarded as corrupt as it stands. And this is by no means impossible: for it lies well within the penumbra of the lacuna in the Excerpt, and we shall see directly \({ }^{\text {at }}\) that it has been partly responsible for further comuption, in the past.

> § 11.-The Lacuna in the List.

This is as far as it is possible to go by direct reckoning upwards from the bottom of the List as we have it. It reveals the fact that wherever we can test the data in the List by external evidence, they present the appearance of genuine materials; and as our main witness throughout has been Herodotus, we may fairly claim that, if genuine at all, these data go back to at least a fifth-century source; that is to say, at least to the period of the great Thalassocracy of Delos, which is pre-supposed, as we have seen, as the graal to which the sequence leads.

But above the Phocaean sea-power, we encounter successive difficulties. For the next four places (VIII-XI) the List is very ill preserved ; and even where we have the data at all, they refuse to agree with the traditional course of history.

If we accept, as above, the date 534 as the 'latest possible' for the close of the Phocaean thalassocracy, and reckon backwards from it with the numerals given in the List and in the Canon, we are confronted with the following chronological scheme:


Now an Egyptian thalassocracy ending in 725 would fall in the early part of the Ethiopian Dynasty, \({ }^{56}\) and in the reigns of King Usorkon III. of Thebes \({ }^{57}\) and King Tefnekht of Sais. \({ }^{58}\) But at this time Egypt was disunited ; and the Delta, in particular, was divided among a number of petty chiefs. An Egyptian thalassocracy therefore is quite out of the question at this time ; and the same is in fact the case right on to the year 664 , when the revolt of Psammetichos freed Egypt from Assyria, unified the country, and rapidly created that phil-Hellene and Mediterranean sea-power which was used to such effect by Necho, both for peaceful and for offensive ends.

\footnotetext{
\({ }^{4}\) P. 105, below.
\({ }^{55}\) Interred from Jerome's evidence, as exflained on p. 93.
\({ }^{56}\) Piankhi I. reigned \(748-725\) or later.
}

Petric, Mist. Eg. iii. 268.
\({ }^{57}\) 755-730. Petrie, Hist. Eg. iii. 262.
58 749-721. Petrie, Hist. Eg. iii. 314.

Now no amount of adjustment of the lost Samian numeral will relicve this discrepancy in the case of Egypt ; even if it were possible to bring the Phocaean dates lower; and this we have seen is out of the question. Three possibilities remain. Eithur (1) there was some reason (now lost) for assigning to Egypt a sea-power before that of the XXVIth Dynasty; or (2) the List, which has hitherto presented every sign of genuine historical tradition, must be thought to change its character, altogether, somewhere in this section ; on (3) there must be something gravely wrong with the numerals for Lesbos, or Caria, or Miletus, or more than one of them.

The first hypothesis is ingenionsly handled by Goodwin, who brings together evidence to show that a well-attested Greek tradition, at least as old as Herodotus, did actually dislocate Egyptian history in the period indicated by the Eusebian dates ( \(794-750\) inclusive) and assigned to the eighth century the 'Pyramid Kings' of what we call the IVth l)ynasty. But this interpretation, though it throws an important light on the Egyptian marrative of Herodotus, and explains how the data in the List as we have it escaped criticism in Hellenic times, does not account for the very marked discrepancy between the Lesbian numeral and the Eusebian interval assigned to the Lesbian sea-power, and leaves ont of account the cumulative evidence, which we have already collected, against the trustworthiness of the Eusebian text in this section.

The second hypothesis is a counsel of despair ; and is best met by the proof, which follows in \(\S \S 15-17\), that in the places immediately preceding the difficult section the List does give accurate historical information. For if this is so, it is difficult to see why the List's authority should be bad in the seventh century, if it is good in the sixth and eighth.

The third hypothesis is that to which we have already been driven by the consideration of the textual evidence; and as soon as we begin to advance further into what I have already described as the 'lacuna' in the List, we shall find evidence accumulating rapilly in its favour. The logical procedure would be first, to survey briefly the historical evidence, such as it is, for the thalassocracies of Lesbos, Caria, and Miletus respectively, so as to see whether Greek tradition gives any support to the doubtful numerals; then, to marshal the non-Greek testimony to the historical character of the numerals above the lacuna; and then to return to the numerals which fall within the lacuna, to see what attempt can be made to explain their corruption, and to restore the true figures. But some repetition will be saved by anticipating the result of the second enquiry so far as will allow us to discuss the restoration of the true figures for Lesbos, Caria, and Miletus pari passu with our criticism of the corruptions.

> § 12.—The Sect-power of Lesbos.

The List, as we have seen, gives no numeral for the sea-power of Lesbos. Jerome's version of the Canon supplies the numeral 68 ; but as it has no entry for the Phocaean sea-power, we cannot tell what interval was reckoned
for that of Lesbos from its initial date 671. The Armenian version of the Camon assigns the same initial date; and the year 575 for Phocaea: giving an interval of 96 years. Here is a serious discrepancy to begin with.

The Canon alsu assigns the war between Athens and Lesbos to 611 ; and identifies Phrynon the Athenian general, who was killed therein by Pittacus of Lesbos, with the Phrynon who was Olympic victor in 632 ( \(=01.36\) ). Eusebius also dates from 620 the tyranmy of Periander of Corinth, who arbitrated in this quarrel; and the Eusebian dates for Aleaeus and his contemporaries go back also into the seventh century. All these dates probably stand or fall together. Whether Ensebins tried to recover a numeral which was missing in his List by the aid of Phrynon's Olympic date, or whether the numeral which he read in the List led him to his identification of the two Phrynons, we camot now tell; but it is clear in any case that if Jerome's numeral 68 is right, Eusebius disregarded it in calculating the interval between the 'accession,' so to speak, of Lesbos and that of Phocaea.

At this point we should remember, first, that the Lesbian numeral falls within the limits of the textual lacuma : second, that the silence of Syncellus, and of the Armenian entry, as to the numeral, shows that the lacuna is at least as old as Eusebius. Can we trace the corruption any farther back?

An obscure passage of Pliny suggests that we can. Speaking of Lesbos he says restant Eresus, Pyrrha, et liberel Mytilene, annis MD potens. \({ }^{59}\) Now by no chronological ingenuity can Mytilene be given a potentia, naval or other, extending over 1500 years. But it can hardly be a coincidence that the Greek symbol \(M \Delta\) represents the numeral 44 which stands in the next place in our List, opposite the name of Phocaea; and nothing is more probable than that in transcribing from Greek into Latin, the symbol \(M \Delta\) should have been made into MD. I think we may fairly infer from this passage of Pliny, first, that Pliny had among his authorities, either all, or part, of the same List as Eusebius ascribes to Diodorus ; sccond that either Pliny or his authority had this List in such a condition that the Lesbian name became associated with the Phocaean numeral, to the consequent extinction of its own.

Now such a corruption would be very much more likely to occur, if the lost Lesbian numeral were something which resembled 44, than if it were not; and none of the modes of representing 68 (lxviii or \(\overline{\mathrm{ZH}}\) ) is the least likely to have caused such a confusion with any of the modes of writing 44 (xliv or \(M \Delta\) ). Nor is any of the modes of representing the Eusebian interval 96 (xcvi or \(\boldsymbol{\varphi}\) ) at all liable to such confusion; not to mention the fact that this interval gives a date which is itself inconsistent with the historical evidence as to the XXVIth Dynasty, without allowing anything at all for the thalassocracies of Caria, Miletus, and Egypt combined. On the other hand, either a \(4(\Delta)\) or a \(40(M)\) might very easily fall out in favour of the 44 of Phocaea: and we shall presently see that there is a good deal to be said for a very short sea-power for Lesbos.

But how did Jerome's 68 get into the vacant place? Two conjectures

\footnotetext{
\({ }^{59}\) N.H. v. 31. 39.
}
may perhaps be permitted. (1) Written in Latin minuseule the numeral lxviii, with the long flourish to the \(v\), differs only by a couple of strokes from minuscule lesbii ; and we have seen already, from the examples of Pliny and of Syncellus, how easily confusions arose from the intermixture of alphabetic and numerical groups in a document. Jerome certainly dictated his Canon; and if he found a numeral missing, hesitation and repetition of the word Lesbit are only too probable.
(2) Or the corruption may have arisen in the Greek text of the List itself, as follows. The Milesian numeral \(\mathrm{IH}(=18)\) followed by the Carian numeral \(\equiv A(=61)\) and preceded by the lost Egyptian numeral—which I hope to show, in the sequel, to have been \(\equiv(=60)\) or \(\equiv \mathrm{A}(=61)\)-can hardly have failed to lead sooner or later to the intrusion of the combination三H (=68), when once the true numeral had been absorbed, as Pliny's mistake shows, into the Phocaean numeral below it. Or again, if at some stage or other of transcription the numerals were in words, the sequence
 є́乡йкоута-о̀кт \(\dot{\text {. }}\)

But what of the external evidence for the duration of Lesbian seapower? That there was such a sea-power is indicated, apart from the passage of Pliny, by several authors of late date ; and though Herodotus does not mention a sea-power explicitly, he notes Lesbos, twice over, at a later date, as a state with ships to spare \(;^{60}\) and he also describes, without precise note of date, a state of things in which Sigeum, which had belonged to Mytilene, was captured, after a long war, by the Athenians, and secured to them by the arbitration of Periander. There was, however, further fighting even in the days of Peisistratus' son and lieutenant, Hegesistratus. Now this participation of Peisistratus in the affair shows that Herodotus fixed the Athenian capture of Sigeum, and the arbitration of Periander not very much earlier than 570 ; and Athenian operations in the Troad could hardly have been possible till after the annihilation of a Lesbian sea-power, if such ever existed. On the other hand, supposing such a sea-power to have existed and to have been destroyed, as the List suggests, by the Phocaeans about 578 , the opportunity of its downfall was a good one for the Athenians to seize a half-way house to those new markets in Pontus which the policy of Solon had secured to them. Note also, as evidence of the view which contemporary thalassocrats and others took of Athenian enterprise in Hellespont, the troubles which befell Miltiades the elder from Lampsacus, the colony and local agency of Phocaea; and the vigorous counterstroke of Croesus of Lydia, whom Herodotus depicts, as in the cases of Solon and Alcmaeon, as thoroughly phil-Athenian in policy. \({ }^{61}\)

In all this we have a fifth-century version of the same set of events as in Euscbius. Periander, Alcaeus, and the rest play their parts in the
\({ }^{6 n}\) HIt. v. 26, vi. 26-28. Note that in the fifth century also Mytilene ranked with Samos and Naxos as a contributor of actual squadrons to

\section*{the Delian League.}
\({ }^{61}\) Helt. i. 29, vi. 37, 125.
struggle between Athens and Lesbos in both; but the fifth-century version pins the whole sequence down to the first half of the sixth century, and to the generation of Peisistratus and the elder Miltiades, instead of allowing it to stray up into the seventh.

On the question of the upward limit of Lesbian sea-power, indeed. Herodotus has nothing to say; for the story of Arion of Lesbos, \({ }^{62}{ }^{62}\) so far as it is pertinent at all, belongs to the cycle of Periander, and gives no fresh evidence about Lesbos, except in so far as Periander, in this context, is reckoned a contemporary of Thrasybulus of Miletus, and of Alyattes of Lydia, whose period we shall have to define in \(\S 14\). There is, however, one Herodotean statement outstanding, which makes strongly for the later dates for Lesbian sea-power. Pittacus of Lesbos probably stands in the same relation to the Lesbian sea-power as Polycrates to that of Samos, and Thrasybulus to that of Miletus ; and Pittacus is introduced by Herodotus \({ }^{63}\) as a contemporary and adviser of Croesus. As to their relative ages, the passage tells as much, or as little, as the analogous passage about Solon ; and it can hardly refer to any point within the period of Pittacus' administration of Lesbos, for he is not described as tyrant, only as cò Mutinquaîov. It is, however, noteworthy that, just as Solon is the sage whom Croesus consults as to internal prosperity, it is to Pittacus that he turns for advice about his projected navy: 'Once bitten, twice shy.' If the List is correct, and it was the Phocaeans who had wrested naval supremacy from Lesbos, and were holding it all the days of Croesus, Pittacus was of all men the most proper to bid Croesus 'beware of the sea. \({ }^{\text {' }}{ }^{6}\)

\section*{§ 13.-The Sea-power of the Carians.}

In place X the Excerpt has a lacuna in both columns; and Syncellus is silent. But the Armenian version of the Canon gives the Carians, with the numeral 61 and an interval of 59 years, from 730-671: while Jerome, reckoning backwards from the same terminal date, gives an interval of 49 years (720-671) and no numeral.

Even the smallest of these intervals (49) is too large to allow the Egyptian thalassocracy to come down lower than 637 'at latest', even ignoring Lesbos and Miletus altogether: while, allowing 4 years for Lesbos and Jerome's 18 for Miletus, it gives to Egypt the terminal date 659. Clearly there is something wrong here also : no amount of reduction of the Lesbian numeral alone will make the List conform to the conditions imposed by the known history of Egypt.

This is not the place to go into the Carian question at any length ; but the summary, which follows, of the principal Greek theories about the Carians, may perhaps clear the ground somewhat.

\footnotetext{
\({ }^{62}\) Hdt. i. 23.
\({ }_{6}^{63} \mathrm{Hdt}\). i. 29.
os The later writers incline to put the tyrannis of Pittacus between 590 and 580, and
}
these dates suit very well the terminal date 578 'at latest,' which is indicated by the Phocaean evidence.

Herodotus \({ }^{65}\) and Thucydides "6 agree as to a Carian sea-power, or occupation of the Aegean islands, in pre-Minoan times. Opinions differed, however, in the fifth century as to whether the Carians were originally islanders or mainlanders: the Greeks knew that they had completed the expulsion of Carians from the islands in historic times and confined them to the mainland of Caria ; the latter-day Carians of Caria claimed autochthony where they actually lived, and ignored (or had forgotten) their insular expansion. \({ }^{67}\)

But two other items of Hellenic belief are clear. One is that, in spite of Minos, a Carian occupation of certain islands went on still after the Trojan War. This is best illustrated by certain passages of Diodorus; \({ }^{68}\) but is presumed by Herodotus' statement that it was Ionians and Dorians who expelled the Carians from them finally. \({ }^{69}\) The statement of Diodorus moreover is repeated and precise, that it was after the Trojan War and before the Hellenic colonization (and therefore immedictcly after the Trojan War) that the Carians exercised sea-power, and occupied, or reoccupied the islands. It is thercfore surprising that the List, as given on the authority of Diodorus in the Excerpt, begins not with the Carians but with the Lydians and Maeonians.

The other Hellenic belief is that in the days of Psammetichus the 'bronze men from the sea' were conjointly Ionians and Carians. Now these Carians can hardly have been insular Carians, for the colonization of the islands by Ionians and Dorians had by this time been complete for some centuries. \({ }^{70}\) They must therefore have been the Carians of Caria, the immediate ancestors of those more or less Hellenized Carians who figure as the allies of the Ionians in the revolts of Pactyas and Aristagoras.

How do these two items of belief affect our interpretation of the List? First, it is clear that Diodorus believed that any possible List beginning 'post bellum Troiunum mare tenuerunt' must have begun with the Carians; and that this belief is implied in the statement of Herodotus as to the colonization of the islands. Second, if we add up the numerals given in the List for places I-VII inclusive, we reach the total of 382 years: and this total if reckoned back from the earliest possible year for the beginning of an Egyptian seapower, namely 664 , only carries us back to 1046 , more than a ceutury short of the Eusebian date for the Fall of Troy (1184), and almost exactly contemporary swith the foundation of Miletus and the older Ionian and Dorian

\footnotetext{
fis Hilt. i. 171.
\& 'thue, i. 4.
if For Carian autochthony compare also Diod. v. 60, 1'aus. 7. 2-4 passim, and Conon Norr. 47. Strabo 661 is explicit as to the discrepancy of current theories, and attempts to harmonize them.
\({ }^{68}\) Especially Diod. v. 81. \(\mu \in \tau \grave{\alpha}\) § \(\delta\) т̀̀ \(\nu\)



}
colonies in the islands and Asia Minor. \({ }^{71}\) It follows from this, that the List as we have it, is incomplete at the top ; and on the evidence before us we can hardly doubt how the lacuna at the top is to be filled, namely by the insertion of the Carians in place O , of the diagram on p .88.

But it is very unlikely that any one people was inserted twice over in a systematic list of this kind, unless there was some very good reason for it. Goodivin, indeed, supposed that the insertion of the Carians in place X was an attempt to make use of the mention of Ionian and Carian adventurers in the days of Psammetichus. But he argued on the assumption that the whole List was a late compilation by Diodorus or Castor ; and we have already seen what reason there is to ascribe to it a much earlier and more authoritative origin. But Goodwin's suggestion is very nearly right, all the same.t. We have already one instance, in the List, of a sea-power, in place I, which bears a double title Lydi qui ct Macones. Just such a double title is used by Herodotus to describe the auxiliaries of Psammetichus; and we shall see in the next section how strong the evidence is for the belief that the ringleaders of all this Levantine adventure were the men of Miletus, the one great 'Ionian' city which was also on the sea-board of Caria. I venture therefore to suggest that the original designation for the sea-power in place IX was Milesii et Cares; and that the separation of the Carians from the Milesians is the work mainly of a damaged text-for it is just here that the lacuna is at its worst- ; but also partly of a generation which had forgotten its Herodotus, and argued from later circumstances - the Miletus of Aristagoras, the Caria of Artemisia and Maussollus, and the general confusion of thought about the Carians,--first, that Miletus must have stood alone, and second, that room must be found in the List for the Carians independently.

We have still to deal with the Eusebian numeral 61, of which the Eusebian interval 59 is an obvious accommodation, and Jerome's interval 49 a further modification which affects all Jerome's dates from 671 back to 893 or earlier ( \(p .93\) ). But we have seen already that we are here in the heart of the lacuna; we may note the probability of confusion between the Greek ミA and the Latin XI which marks the succeeding place in the List; and we shall see presently that the historic duration of the Egyptian sea-power, reckoning from the establishment of Psammetichus in 665-4 to the defeat of Necho by Nebuchadnezzar in 605-4, gives us exactly the figure \(60-61\) which, if, as appears, it got separated from its context in place VIII, was available for annexation to the Carian name, when this latter broke away from place IX.
\({ }^{71}\) The fifth-century evidence for this is the genealogy of Hecataeus of Miletus, as given by Herodotus ii. 143. This genealogy 'went up to a god ' (i.c. human ancestry failed) in the sixteenth generation: and Hecataeus was a grown man in 500 B.c. Supposing Hecataeus to have been born in 530 at latest, and allowing three generations to a century, we arrive at \(530+533=1063\) as the initial year of the
sixteenth generation; and this is actually the initial year of the generation of the 'pilgrimfathers' who colonized Miletus.
\({ }^{72}\) Goodwin's own solution was (l.c. p. 51) to insert the Carians between the Thracians and the Rhodians, accepting the hint of Syncellus that the latter were кaтà \(\delta \dot{\epsilon} \tau i \nu \grave{s} \pi \epsilon \epsilon \mu \pi \tau o l\). But see below P. 125, as to the significance of this variant.

\section*{§ 14.—The Sea-power of Miletus.}

Jerome alone gives a numeral (18) to the sea-power of Miletus. He dates it from 748 to 720 , giving an interval of 28 years, ten of which may be due to his discount of 10 years in place X . Allowing for this, as in the case of the Eretrian interval in place XVI, Jerome's Canon-reckoning accords with his numeral 18, and to this extent confirms it. The Armenian version of the Canon gives \(730^{\circ}\) as the initial year of the Carians, but no direct information about Miletus. Syncellus is silent.

We have seen already that a Milesian sea-power in the eighth century, though not in itself incredible, is rendered unlikely by the circumstance that Miletus succeeds Egypt in the List, and that an Egyptian sea-power at this period is out of the question. We have also seen that the Carian sea-power must probably disappear, as a separate item, altogether ; and that the seapower of Lesbos is to be correlated closely with the tupavdis of Pittacus and the generation between Solon and Peisistratus. We should therefore look for the sea-power of Miletus in the opening years of the sixth century, and the closing years of the seventh.

Now Herodotus has to treat the early history of Miletus rather fully : for Miletus is the \(\pi \rho o ́ \sigma \chi \eta \mu a\) ' \(I \omega \nu\) ins in more senses than one. Its earlier wars with Lydia do not concern us here; but the great war, of which the last five years fell in the reign of Alyattes, comes just at the beginning of the period now under review. Alyattes came to the throne according to Herodotus in \(617,{ }^{73}\) and according to later authority in or about \(610 .^{74}\) Whatever the precise date of the formal accession of Alyattes, the war with Miletus would seem to have been over in the fifth year of his sole-reign, that is in 605 ; and from that time onwards, until the Ionic Revolt, Miletus enjoyed a peculiarly secure and privileged position landwards: neither Croesus nor Cyrus, as lords of Sardis, ventured to try conclusions again with the mistress of the Maeander exit.

The year 605 was a critical year in the history of the Nearer East: for it stands on the eve of Nebuchadnezzar's advance against Egypt, and of the collapse of the 'bruised reed,' even Necho. It marks therefore the point at which Alyattes, like Gyges before him, and Croesus after him, found himself face to face with a political crisis in the Levant, which directly affected his own prospects in Asia Minor. It was no time to be harrying the territory of the metropolis of Naucratis, when the only result would be to withhold from his natural ally in Egypt those 'Ionian and Carian' mercenaries on

\footnotetext{
\({ }^{73}\) I.e. 57 years before the accession of Croesus (Hdt. i. 25), and 72 before the fall of Sardis.
\({ }^{74}\) The divergence of the dates probably stands in direct relation to the statement of Herodotus (i. 15, 18) as to participation of Sadyattes and Alyattes in this war. Probably the war broke out in 617 or 616 ; Sadyattes
}
whose aid the Saite dynasty was based. The year 605 therefore is in every way a probable date for the great peace between Alyattes and Miletus.

But the pretext given by Herodotus \({ }^{75}\) for this reconciliation is quite different, and much more closely connected with our story. Here, it is the discovery that, do what he would, he could not starve out Miletus, which changed the policy of Alyattes; and this is as much as to say that then, as afterwards, Lydia was powerless against an Ionian state, if that state had command of the sea.

Now it was the tyrant Thrasybulus, not unaided by his friend and ally Periander of Corinth, who brought this conviction home; and Periander's share in the matter is emphasized a few chapters further on, in thoroughly Herodotean fashion. The familiar tale of Arion and the Dolphin is retold by Herodotus in i. \(23-4\); but it is Periander who is in the part of the hero. It is Periander who is repressing piracy, even among his own shipmen; and we have not to read very far between the lines to see the same Periander active, as the ally of Thrasybulus, in keeping the sea-ways open, while Miletus is pre-occupied landwards. The loyal support of the Chians, moreover, when all the rest of Ionia held jealously aloof, is further evidence of the completeness of Thrasybulus' commissariat, as well as of Miletus' influence seawards; for Chios is not only the one great Ionian city (besides Samos, the ancient rival) which was inaccessible to Alyattes and at the mercy of an Ionian sea-power ; but it commands that 'inside course' between the mainland and itself, which in all ages makes just the difference on the voyage from the Hellespont southwards. \({ }^{76}\)

At the moment of the treaty with Alyattes, therefore, we can see Miletus well supported at sea, and furnished with a powerful ally in European Greece. How did Miletus turn these advantages to account, on the cessation of the landward trouble? Two other circumstances recorded by Herodotus go far to complete an outline history for the remainder of the reign of Alyattes. In v. 28, he describes Miletus at the time of the Ionic Revolt as aú \(\tau \dot{\eta} \tau \epsilon \dot{\epsilon} \omega v \tau \eta{ }_{\mathrm{\eta}} \mathrm{~s}\)

 \(\mu \iota \nu\) Пípıo七 кати́pтьбal. Now we do not know the date of this Parian ' reconciliation,' but we do learn that the \(\tau u \rho a \nu \nu i\) 's of Histiaeus and Aristagoras had been preceded by two generations-or say 60 years-of divisions and disorder. But Histiaeus was already tyrant at the time of the Scythian Expedition ; not later, that is, than 510 , and probably somewhat earlier. Some interval also, though not necessarily a long one, must be allowed for the

\footnotetext{
\({ }^{75}\) Hdt. i. 20-22.
\({ }^{76}\) For an early instance see Odyssey iii. \(170-\) 175. It was only after ' the god showed them a sign' that they ventured across from Lesbos to Euboea каӨúnєp日є Xloto instead of going 'inside.'
\({ }^{77}\) This, it shonld bo noted, was at the
}
'Parian' constitution-a kind of 'ministry of affairs '—to fall into disorder and give place to the tyrannis; and before this come the two generations of stasis. The beginning therefore of this period of distress cannot be put much later than 575, and may be considerably earlier. But what government was it, the fall of which inaugurated the period of distress ; and what changes of economic conditions or external politics brought about the fall of this government?

The régime under which Miletus became once more the \(\pi \rho\) ó \(\sigma \chi \eta \mu a\) I \(\omega\) vins was, as we have seen, a tyrannis, though the foundations of material prosperity may well have been laid by the Parian reconciliation. The same was the case both in Samos and in Lesbos, at the period of their several seapowers ; and at Miletus also the great compact with Alyattes was the work of another tyrannis. But in Greek states the effects of a tyrannis were as a rule transient, not permanent,-the happier fate of Athens was the exception, not the rule;-and in the case of Miletus it is clear that after a while the strong government of Thrasybulus collapsed. We may also conjecture, in default of further information, that it was this collapse which inaugurated the two generations of discord. So important an event is clearly worth fixing if possible ; and all the more so, because, if the analogy of Samos and Lesbos is worth anything, the fall of Thrasybulus should be closely connected with the fall of the Milesian sea-power, just as the first appearance of Thrasybulus coincides closely with the first symptoms of its rise. Now we have seen already that the Milesian sea-power probably began about 605; and Jerome's Canon indicates that it lasted 18 years. It should therefore have ended not earlier than 587. But we have already seen reason to believe that it ended not later than 575 ; and we reached this latter date only by the most rigid compression of a long and vague series of events: the phrase 'two generations' for example is quite as likely to have meant 65 or even 70 years as the 60 years which we allowed to it. But can we not fix the date of this loss of sea-power more accurately ?

The other occurrence recorded by Herodotus, which concerns Miletus at all, is the war between Alyattes and Kyaxares. \({ }^{78}\) It lasted five years, and was terminated by the 'Battle of the Eclipse' in May 585. Here at all events we have a date astronomically determined, and generally accepted as certain. This struggle also, like the siege of Miletus by Alyattes, marks the close of a period, and must be studied in its context. Nearly a generation had passed since the fall of Nineveh; and the bipartition of the Assyrian Empire had resulted in a delicate balance of power. The Media of Kyaxares and the Babylonia of Nebuchadnezzar (the \(\Lambda a \beta v v^{\nu} \eta \tau o s\) of Herodotus i. 74) stood face to face, armed rivals ; each hampered by a western enemy, Media by Alyattes and the Lydian hegemony \(\tau \hat{\omega} \nu\) éviòs "A \(\lambda v o s\), Babylon by Saite Egypt; each conscious, too, that the western enemies were united, now as ever, in concerted resistance to Oriental aggression. Wedged between each pair of antagonists lay the cockpit states, Cilicia and Judaea, each leaning on its own
'bruised reed' for fear of the probable aggressor. Behind all, linking together the two western land-powers, and furnishing, to both, the skill and courage which made the struggle so nearly even as it was, lay, as we now can see, the Milesian sea-power; supreme, probably, on the water, between Naucratis and Sinope, and reinforced in its turn by a network of alliances: Periander's Corinth, Solon's Athens, and Sybaris and its friends in the far West: for the days of Democedes and Polycrates were not yet. The only cloud in the Milesian sky is the recent apparition of a new rúpavoos in Mytilene.

This roughly represents the situation in the Nearer East, in and about 590. But in the next five years the scene is changed. First, some time in 591, Kyaxares found a sufficiently plausible excuse for declaring war on Lydia, \({ }^{\text {isa }}\)
 Nebuchadnezzar seized the opportunity of his rival's preoccupation northwestward, and of some provocation from Apries, who became king of Egypt in \(589,{ }^{79}\) to make a final end in 587 of the Egyptian outpost at Jerusalem ; and in 585-4 he was once more victor over Egypt. Kyaxares had been less fortunate ; the Lydian war dragged on ambiguously, and in 585 Nebuchadnezzar, who had now got all he wanted in the south-west, is found associated with the king of Cilicia in putting pressure on both Kyaxares and Alyattes to leave their quarrel undecided. If events went further in that quarter, Kyaxares might even win; and meanwhile the 'Battle of the Eclipse' had

 was that of Pharaoh Necho; the king of Babylon was now unhampered by anxieties south-westward; and from peace the northern powers went on to friendship aud alliance. The Halys frontier was accepted as an obvious compromise; Astyages son of Kyaxares married the daughter of Alyattes, and the friendship thus inaugurated endured until the coming of Cyrus.

How did all this effect the position of Miletus? Badly at all points. The recovery of Egypt by the East, even momentarily, dealt a severe blow to Naucratis and Milesian interests generally: it also deprived of a profitable livelihood those Ionian freelances who formed the backbone of the Egyptian army. The sudden peace between Media and Lydia had the same result ; in addition it set Sardis free to attend to more Iucrative business than Cappadocian warfare ; and this was bad for the tertivs gaudens who had been working the route of the Maeander, and the exit of Sinope, during the war. Miletus, moreover,-if, as our List suggests, it had assumed in 604 the rôle which Egypt was forced to resign, and if, as we may probably assume (for its interests compelled), it had aided Egypt in the campaign of \(585-4\), -was in no good odour in Babylon, if not positively excluded from the ports of Nebuchadnezzar's sea-front. It would, moreover, have been a little sudden for a Milesian to enlist, as a Lesbian was free to do, in the service of the king of Babylon; and the king of Babylon, on his part, having attained his objects, was more probably paying off, than enrolling. It was clearly a period of
sudden, and probably acute, distress ; and nothing is more likely than that we should assign to this fateful year 585-4 the deposition of Thrasybulus, and the opening of the long stasis of Herodotus v. 28.

There is a further piece of evidence, the discovery of which we owe to Dr. Winckler, though, writing briefly, he has not, I think, developed its full significance. The statesman who rescued Lydia from Kyaxares, while annexing Judaea and Egypt to himself, was not likely to leave out of his reckoning the third principal partner among the western powers; and it would be most instructive to find Nebuchadnezzar, in the same year 587 which saw the first move in his south-western war, taking note of an ally of Egypt 'far away in the midst of the sea.' Such a mention of an oversea ally of Egypt appears to occur in a well-known but fragmentary inscription of Nebuchadnezzar. \({ }^{792}\) On the strength of a descriptive geographical term Puthu javan, and of a mutilated personal name ending in \(k u-u\), Dr. Winckler identifies this state with the Lesbos of Pittacus, though the context is wanting, and we have merely the probability that communications of some kind were passing between it and Babylon. But the evidence is not convincing. Puthu javan is not strictly sonst nicht bekannt as he says; the termination ku-u hardly proves more than that some Greek name in -коs is meant; the syllables, on which Dr. Winckler relies, are not for certain parts of proper names at all ; they are separated by a whole line of lacuna from the description of the country to which he assigns them ; and in any case the inscription itself refers to a campaign not earlier than the 37 th year of Nebuchadnezzar. Now Nebuchadnezzar's 37 th year fell in 568 ; and this inscription consequently has no bearing whatever on the events of 587 , or on any part of the political career of Pittacus.

It is however of some importance to find, first, that Nebuchadnezzar had his eye even later on some western sea-power which was supporting Egypt; second, that another inscription \({ }^{80}\) of Nebuchadnezzar mentions again a 'far region in the midst of the sea,' as sending contributions to a templerestoration in Babylon.

It is here, I think, that we come nearest to Pittacus of Lesbos, though not so near as Dr. Winckler would have us believe. From. Nebuchadnezzar's first inscription we are led to suspect that Amasis of Egypt had Greek allies. From his second we gather that Nebuchadnezzar himself had an oversea tributary at some period or other of his reign. From Alcaeus we know that about the period of the rise of Pittacus, the natural refuge of an exiled Lesbian was to enlist under the king of Babylon; and from the ThalassocracyList we learn that Lesbos succeeded Miletus in the command of the sea. If we ever have direct evidence of tributary behaviour of Lesbos or of Pittacus

\footnotetext{
\({ }^{79} 9_{a}\) This inscription, of which Dr. Winckler only gives a brief mention, is published in full by Dr. Pinches in T.S.B.A. vii. (1882), pp. 210 ff., and again by Strassmaier Inschriften ron Nabuchodonosor (1889), p. 194, No. 329. The original is in the British Muscum, and I
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\footnotetext{
owe these references to the courtesy of Mr. I. W. King, of the Department of Egyptian and Assyrian Autiquities.
\({ }^{\text {so }}\) Quoted by Dr. Winckler, l.c. p. 31, from A. O. v. 4, 1. 22.
}
towards Nebuchadnezzar, it will only confirm what seems already probable, that Lesbian ambitions found encouragement and opportunity from Babylon and gave the last shock to the tottering sea-power of Miletus.

Now under these circumstances the following conclusions seem to be justified : first, that the numeral 18 for the Milesian sea-power is approximately correct; second, that this sea-power began shortly after Nebuchadnezzar's attack on Egypt in 604, and ended about the time of the 'Battle of the Eclipse' in 585 ; third, that the rise of the Lesbian sea-power, if it occurred as early as 586 , justifies the numeral 8 which we have seen to be one of the components of the corrupt series (60) 18, 61, 68 in the List; while if it occurred as late as 584 it justifies the numeral 6 , which comes thrice over in its compound \(\epsilon \xi \mathfrak{\eta} \kappa о \nu \tau a\); fourth, that it is only by accepting, as in § 10 , the 'latest possible' date for the fall of Phocaea, that we arrive at an interval of as many as eight years at all, and that consequently, if the fall of Phocaea should for any reason be transferred as far back as 538 , there would be only 4 years to spare for Lesbos between our earliest date for the fall of Miletus and the resultant date for the rise of Phocaea; and we have already seen (p. 105) that there is some probability that 4 was the lost Lesbian numeral.

> § 15.-The Sea-power of Eggpt. 664-604 в.с.

No numeral for the Egyptian sea-power is preserved directly at all Syncellus and the Armenian version are silent; and Jerome gives only the dates 783 and 748 , with an interval of 35 years.

We have seen already \({ }^{81}\) that Jerome's dates are out of the question; that the only period within which an Egyptian sea-power is conceivable at present begins with the establishment of Psammetichus in 664 ; and that only on the hypothesis that Egyptian sea-power ended soon after the defeat of Necho by Nebuchadnezzar in 605-4 can the sea-powers in places IX-XI of the List be restored to an intelligible form. We have now to collect the evidence for an Egyptian sea-power during this period, and establish so far a may be the hypothesis on which we have been working hitherto. \({ }^{82}\)

The account given by Herodotus \({ }^{83}\) of the establishment of Psammetichus as king of Egypt states definitely, first, that 'Ionian and Carian' adventurers had then recently begun to harry the Delta; second, that Psammetichus took these adventurers into his own service, and founded a camp-town for them between Bubastis and the sea ; third-and here Herodotus appeals to archaeological evidence still extant in his own time,--that this settlement included a naval establishment. \({ }^{84}\) If the question be raised, of what use

\footnotetext{
81 P. 103, above.
82 As a matter of logical argument, this Egyptian section should have preceded \(\S \S 12-14\); but it seems more convenient to preserve the chronologieal order and discuss the sea-powers consecutively, while trusting to cross-references
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\footnotetext{
to indicate the sequence of the reasoning.
\({ }^{83}\) Hdt. ii. 152-154.
 (in Amasis' reign), ¿̀ toútotot ठè ol te \(\delta \lambda\) rol
 ใ \(\mu \in \hat{U}\) 万ु \(\sigma \alpha \nu\).
}
was a naval force of this kind to Psammetichus, the answer is obvious. On the one hand, not all the 'Ionian and Carian' adventurers who came to Egypt came as his vassals, any more than the first who came and harried the Delta coast; in face of an aggressive Aegean, an organized coast-guard was indispensable. On the other, the success of Assurbanipal's invasion of Egypt in 668 had been largely due to the circumstance that the land army was escorted and protected in flank by a sea-force from Phoenicia, which had apparently recently come to a settled understanding with Assyria; and if Assyria were ever to threaten Egypt again, it would be by a similar combination of forces. On this ground also, therefore, Psammetichus had urgent need of a navy. Further, as soon as Psammetichus advanced, as he shortly did, beyond his own frontier eastward, a war-fleet and oversea transport became just as cssential for offensive ends as they had been during the Syrian protectorate of the XVIIIth Dynasty, when the 'King's ships' are mentioned not infrequently. Of the actual exploits of the Egyptian sea-power, however, we have no direct statement in Greek literature, seeing that they did not concern the Greek world till we come to the reign of Necho ; but here we have the great circumnavigation of Africa, \({ }^{85}\) the opening of the canal between the Nile and Red Sea, \({ }^{86}\) wide enough, as Herodotus says, for two men-of-war to sail abreast, i.e a good deal larger than merely mercantile needs required ; and an express account of concerted expeditions, with fleets of triremes, issuing from regular arsenals, \({ }^{57}\) and taking part in his Syrian war.

The references to Egyptian naval expeditions in Herodotus do not cease even with the death of Necho; and the invasion of Nebuchadnezzar is not even mentioned by him at all. Apries for example évavpá \(\chi \eta \sigma \in \tau \hat{\omega}\) Tupíç \({ }^{\text {ss }}\) and Amasis conquered Cyprus. \({ }^{89}\) But by this time, as the re-foundation of Naucratis, and other symptoms show, the relations between Egypt and its Greek allies, and between Egypt and its easticrn neighbours, are very different; the Syrian policy of Psammetichus and Necho is abandoned, and even for coast-defence we hear nothing of a regular navy. The evidence is of course very meagre throughout, but there is enough, I think, to support the general thesis that from the accession of Psammetichus to the defeat of Necho Egypt was a strong naval power, practically predominant in the Levant, philHellenic, and anti-Phoenician to begin with, but eventually in Necho's time exercising some sort of overlordship over Phoenician seamen, as the story of the African voyage shows.

Now the interval from 664 to 604 is 60 years; and we have seen that if we can assume the numeral 60 at this point in the List we are able to explain the whole series of corruptions which occupy the lacuna between the sea-power of Phoenicia and that of Phocaea. Still better should we be able to explain them if we could date the collapse of Necho's fleet to the year 603 : for this would give us first the numeral 61, which is the exact numeral

\footnotetext{
\({ }^{85}\) Hut. iv. 42. The actual navigators are
 here Phoenicians in the Egyptian service.
\({ }^{86} \mathrm{Hdt}\). ii. 158.
\({ }^{85}\) Hdt. ii. 161.
\({ }^{59}\) Hdt. ii. 182.
}
assigned wrongly by the Camon to the Carians, and secoud the exact date 585 instead of the approximation 586 for the close of the eighteen years' seapower of Miletus. And fortunately the details of Nebuchadnezzar's attack are still sufficiently obscure for the date 603 to be quite a possible alternative.

Dr. Winckler's theory, to which further allusion must be made in the next section, assumes that formal 'sea-power' only passed from Phoenicia to Egypt somewhere about the time of the accession of Necho in 631; but he gives no reasons at all, either for ignoring the reign of Psammetichus, or for rejecting the 35 years' interval given by Jerome, in favour of his own interval of 26 years, which neither helps to explain the dates in the lacuna, nor conforms to any external evidence. And we shall see, when we come to the sea-power of Phoenicia, which precedes that of Egypt in the List, that it is only by reckoning backwards from the year 664 that we can reach any sure equivalents for the dates which the List assigns either for Egyptian sea-power or for the sea-powers next above it.

> § 16.-T'he Sect-power of Phoenicia. 709-664 в.c.

We are now at last clear of the lacuna. The List gives 45 years to the Phoenician sea-power in place VI : the Armenian version is defective; and Syncellus is silent ; but Jerome gives the same numeral 45, with the dates 836 and 783 , and consequently an interval of 52 years. As similar evidence is available for the sea-power of Cyprus in place VI, and as the Armenian version becomes available, in addition, for that of Phrygia in place V, we are in a position to test the reconstruction which we have attempted by a quite different line of argument. Hellenic evidence had already begun to fail us, in dealing with Miletus and Egypt, and fails us altogether in regard to Phoenicia and Cyprus; but we have now got back into the century of the great Assyrian chronicles, and into a geographical region which comes well within their ken ; and the next step in the argument is obvious. If on comparing the dates in the List with these contemporary records of the early history of the Levant, we discover no correspondence whatever between the two series of dates, things will look bad for the authenticity of the upper part of the List, in a section where the text is unquestioned. If, on the other hand, we are able to point to a series of Levantine crises, involving, or indicating, transference of sea-power from one people to another, and separated from each other by just that series of intervals which the numerals in the List assign to successive 'thalassocracies' of these same peoples, then we shall be in a very strong position for claiming real historical value for this section of the list; and a crucial verification of our hypothesis as to the Egyptian dates, and for the reconstruction of the corrupt section of the List, which we have based on it.

I have already explained that it is to Dr. Hugo Winckler of Berlin, and his recent use of the List of Thalassocracies in relation to Euphratean politics, that the appearance of the present essay is due. In discussing the
successive phases of the dealings of Assyria with Tyre, he points out that though in earlier times the Phoenicians had shown themselves not unfavourable to Assyrian ambitions, the capture of Damascus by Tiglath-pileser in 732 inaugurates a period of misunderstanding and opposition, which lasts intermittently from 732 to a little before 668, and is ended by the annexation to Assyria of the whole of Tyre's dependencies on the mainland. Tyre itself, however, retained its independence, became the firm friend of Assyria, and co-operated with Assurbanipal in his Egyptian campaign.

Why did not Tyre itself surrender, and why did Assyria desist at this point from attempts to capture it? Clearly, according to Dr. Winckler, because Tyre-like Miletus in its war with Alyattes-could count on help from some other quarter than the mainland ; and because Assyria at last discovered that further violence was useless.

It is at this point that Dr. Winckler brings in the data of the List of Thalassocracies, which gives 45 years to the Phoenicians, preceded by 33 years of Cyprian sea-power, and this in turn by 25 years of Phrygian thalassocracy. He recognizes, as the counterpart of the Phrygian Midas of Greek tradition, a prince known to Sargon II. as Mita of Muski (Midas of the Moschi), who apparently succeeded to the hegemony of the Khatti in Asia Minor in the latter part of the eighth century, reasserted its ancient claim to Syria, and attacked Sargon in Little Armenia and Cilicia, but was repelled by Sargon, and accepted his overlordship in 710.

Dr. Winckler assumes that among the rights ceded by Mita to Sargon was the headship of a Mediterranean sea-league, the centre of which was an Apollo cult, somewhere out west : perhaps at Delphi, seeing that Midas of Phrygia was famous as a benefactor of that shrine. \({ }^{90}\) He suggests, further, that the reason why certain kings of Cyprus came and did homage to Sargon, about the same time as the surrender of Mita, was to secure from Sargon the title of thalassocrat, and recognition as head of this same Mediterranean league. A well-known stele of Sargon himself, found at Larnaka, and now in Berlin, shows that the allegiance of Cyprus to Assyria at this time was something more than nominal; and Dr. Winckler is certainly right in regarding the year 710 , or more probably 709 , as a critical date in the history of Cyprus.

If, as Dr. Winckler supposes, the year 709 marks the beginning of the sea-power of Cyprus recorded in the List, the close of this sea-power and the rise of that of Phoenicia ought to fall 33 years later, that is, in 676 ; or if Jerome's numeral 23 is preferred, in 686. Dr. Winckler contents himself with an approximation, \(680-670\), and points out that it was about this period that Tyre, after suffering a five years' siege, surrendered to Assyria its mainland possessions. He thinks that, if Tyre had received no compensation for this, it must have sunk into insignificance, and that the only compensation possible was the transfer to it by the king of Assyria of the privileges
granted by Sargon to Cyprus in 709. A number of circumstances in the previous history of Phoenicia, and particularly of Tyre, seem to him to suggest that Tyre had expected such a grant, as the reward of its support of Tiglathpileser in his Syrian War; that, disappointed then, Tyre 'would not be happy till it got it'; and that this was the cause of the long period of fractiousness which followed. Other indications, such as the asylum offered to Tyrian malcontents by some 'island' in 701, suggest that the Cyprian 'thalassocrats' had misused their privileges, and deserved to have them withdrawn by the paramount power; and there was certainly an open revolt of one king in Cyprus in 675.

Somewhere about 675, then, Dr. Winckler dates the beginning of Phoenician (i.e. Syrian) sea-power: and the numeral 45 in the List leads him to assign its close to the year \(630 .^{91}\) Certainly both Tyre and Sidon, and also certain kings from Cyprus, took part in Assurbanipal's Egyptian war in 668 ; but Dr. Winckler gives no explanation of the transfer of sea-power from Phoenicia to Egypt; and neglects altogether the complete revolution in the relations between Assyria and Egypt which took place, as we have seen, in 664. He takes, however, the same view as is proposed in \(\S 15\) above, as to the circumstances under which sea-power passed from Egypt to Miletus in or about 605. The Carians he merely omits to notice ; and his treatment of the Lesbian sea-power has been briefly mentioned already in \(\S 14\).

Such in outline is Dr. Winckler's interpretation of this part of the list. Its cardinal points, as we have seen, are as follows: first, the hypothesis that a state counted as a 'thalassocrat' only because (and so long as) it held a titular office or licence conferred by the Great King, and was a sort of comes litoris Saxonici charged with the maintenance of order on the Mediterranean sea-front of an Assyrian empire ; second, that Egypt did not acquire seapower till somewhere about 630 ; third, that the transference to Phoenicia coincides with the surrender of Tyre's mainlaud possessions to Assyria somewhere about 675 ; fourth, that the embassies of Mita and the kings of Cyprus in 710, or soon after, mark the transference of this title from Phrygia to Cyprus.

With all respect to so distinguished an Orientalist as Dr. Winckler, I do not see that any one of these four points is established by his arguments. His hypothesis as to the nature of 'thalassocracy' is not implied by anything in the extant evidence: it breaks down at once when applied to the earlier part of the List, to Rhodians, Thracians, and Pelasgians; and it fails to give any explanation of the transfer from Phoenicia to Egypt. For Necho, like his father Psammetichus, was in a state of open rebellion against his formal suzerain, and it is difficult to see why the Tyrians, who were now ex hypothesi loyal to Assyria, should be stripped of their long-coveted dignity to decorate an impenitent usurper. The case of Egypt in fact is the clearest

\footnotetext{
\({ }^{91}\) The date which he actually gives is again an approximation 635-625. This is due to the vagueness of his dating for the submission of
}

Tyre, and partly also to his respect for Jerome's variant numeral 23 for Cyprus.
evidence that the epithet 'thalassocrat' was purely descriptive of the actual situation, and was applied to the ruler of the waves because he did rule them, and only so long as he continued to do so. Least of all was it dependent on the whim or the policy of a land-power somewhere in Mesopotamia. The hypothesis also explains nothing. Even supposing such a title to have existed at the Assyrian court, the Great King was most unlikely to endanger his own prestige by conferring it on anyone but the de fucto ruler of the sea. Formal investiture, at best, only followed, and legitimized, the attainment of the substance of sea-power.

Dr. Winckler's second point, his treatment of Egyptian sea-power, has been already discussed in \(\$ 1 \%\). Its fundamental defect is that it ignores altogether the reign of Psammetichus, and assigns sea-power to Pboenicia, the vassal of Assyria, all through the period when Psammetichus was engaged (for example) in the great siege of Ashdod, which would hardly have been practicable without command of the sea. It is clear also that it is to the reign of Psammetichus that we are to ascribe the opening of Egypt to Hellenic enterprise, and the very remarkable spread of Egyptian style and manufactures among the sites and tombs of Cyprus; yet both of these movements would hardly have been possible, if the Phoenicians had dominated the Levant.

His third point, the interpretation of the Phoenician phase, is hardly more satisfactory. At best it gives only approximate dates, whereas the numerals in the list are precise. It is also not quite clear why Tyre should be less likely to be an annoyance to Assyria, if it had sea-power de iure ; nor is continuous revolt the easiest way to obtain titular concessions from an overwhelmingly powerful suzerain. On the other hand, if we reckon back the 45 years of Phoenician sea-power from the crucial date 664, when in spite of the Phoenician contingents Egypt somehow shook itself free from Assyrian rule, and if we consequently assign to Phoenicia a sea-power de fucto for the period indicated in the List, we perceive at once an excellent reason why Tyre was able to make itself such a troublesome neighbour to Assyria; and also why, in the last ten years of its sea-power, it changed its mind and played for Assyrian support against new competitors at sea. Most important of all, if we reckon exactly the 45 years of the List backwards from 664, we arrive at the very year 709 which is the probable date for the submission of Cyprus to Sargon.
\[
\text { § 17.-The Scct-power of Cyprus. } 742(732)-709 \text { в.с. }
\]

The List gives 33 years to the sea-power of Cyprus; Syncellus is silent; the Armenian version is defective; the manuscripts of Jerome give 32 or 23 for the numeral ; and an interval of 28 years, from 893 to 864 . Both XXIII and XXXII are easy corruptions of XXXIII, and we have had no occasion yet to question a numeral from the Excerpt; while Jerome's figures are obviously of the most haphazard kind.

There is no reason to doubt the fact of the Cyprian embassy to Sargon, on which Dr. Winckler bases the fourth main point of his theory; and its date scems to be most probably 709. But we do not know, from Sargon's account of it, what it came to do. The only outstanding evidence is that of the stele of Sargon from Larnaka, and the evidence which it supplies of a real submission of Cyprus about that time. On Dr. Winckler's theory this marks the beginning of the sea-power of Cyprus; but I venture to suggest that it is just as likely to signify its close. Phoenicia, as Dr. Winckler says, had been markedly aggressive landwards since the fall of Damascus in 732, and, from the occurrence of Phoenician names in the lists of kings from Cyprus, it is clear that it had been aggressive seawards too. Cyprus, however, was not by any means wholly Phoenician: a majority of the names of Sargon's visitors in 709 are clearly Hellenic, and in the next generation it is plain, from the scattered references which survive, that the island presented much the same spectacle of social and cultural feud as it did two centuries later at the time of the Ionic Revolt. \({ }^{92}\) Meanwhile, all this corner of the Levant was infested in this generation by sea-raiders, such as those who had harried Sargon's seaward flank in Cilicia during his war with Mita of Muski, \({ }^{93}\) and those who had held Ashdod against him in 711. Some of these are even specifically named as Icunu; and they are regarded by Dr. Winckler as representatives of the Phrygian sea-power. It is, however, at least equally possible that they may have represented a sea-power with its headquarters in Cyprus ; and in any case the surrender of Mita, and Sargon's pacification of Cilicia about 710, left Cyprus exposed to attack from the north as well as from the Syrian coast, whenever it should please Sargon to move. Under these circumstances, and especially if Phoenicia was preparing to recoup itself for losses on the mainland by intervention in Cyprus oversea, it may well have been good policy for the Greek kings of Cyprus \({ }^{94}\) to make terms with the remoter enemy, and, like Gyges in the next generation, to accept an Assyrian protectorate when they found their sea-power slipping from them. Sargon was in fact already much too powerful for Tyre to attack even an oversea vassal with impunity; and his long war with Tyre in the years following 708 has all the appearance of the sequel to the Cyprian embassy in 709.

Now if the sea-power of Cyprus ended thus in 709 , it should have begun, according to the List, in 742 ; and this is precisely the moment of the reappearance of Assyria, under Tiglathpileser, as an aggressive power on the Syrian coast. Tiglath-pileser's war with the federated Aramaean states, between the Euphrates and the sea, lasted from 745 to 740 , and ended with the submission of Arpad, Damascus, and the Phoenician states. It forms therefore just such a crisis in the affairs of the adjacent mainland as would be an opportunity for an anti-Phoenician faction in Cyprus to assert itself seawards, with the help of

\footnotetext{
*2 Hdt. v. 104, 108-115.
\({ }_{93}\) Winckler, l.c. p. 24.
\& It should be noted however that the
}
deputation to Sargon included the king of kition, and Kition was usually a stronghold of the Phoenician party in Cyprus.
the forerunners of those 'Iauna' who troubled Sargon, and of the 'Ionians and Carians' of Psammetichus. For we may safely assume that the generation which saw the foundation of Syracuse and Naxos in the West was quite competent to interfere in the Levant, if a favourable moment should occur. \({ }^{95}\)

> § 18.-The Sea-power of Phrygia. 767-742 в.с.

But what had been the political position of Cyprus in the years preceding 742? Assyrian chronicles and Greek tradition are alike silent; and our only hope of information is from the archaeological record. Cultural changes, of course, though they may prove close intercourse between adjacent areas, cannot prove political conquest of the 'provincial' region by its cultural 'metropolis'; but political conquest is one of the commonest ways by which a dominant culture is propagated; and long-continued political dependence almost always leaves traces of itself in the culture of the subject-area.

Now the problem in the archaeology of Cyprus, which led me in the first instance to the study of the List of Thalassocracies, is this. After the collapse of Mycenaean or Late Minoan conditions in the Aegean, Cyprus, though it seems to have enjoyed a Mycenaen twilight longer and brighter than that of most other parts of the Levant, passes over in due course into an Early Iron Age culture in which the characteristic features are by no means wholly those which would be expected in an area so closely adjacent to Phoenicia, Palestine, and Egypt. In particular, the supersession of cylindrical and scaraboid seal-stones by a series of hemispherical, cubical, and conical forms like those of similar age in Asia Minor and North Syria, the peculiar technique of the painted pottery, and certain very marked types of iron weapons, seem to connect Cyprus much more closely with the Cilician coast and its hinterland than with the Syrian coast and Assyria. This phase of the culture of Cyprus is to all appearance a long one; and it is immediately succeeded by a phase of which the characteristic novelties are imitations of the later geometrical styles of

\footnotetext{
\({ }^{95}\) If for any reason Jerome's alternative numeral 23 should become more probable, it would be necessary to assign the beginning of the sea-power of Cyprus to 732 ; and in this case also Assyrian history provides a striking analogy. For the year 732 is actually the year of the final fall of Damascus, the ringleader of all that Assyrian group with which Tiglathpileser began his struggle ten years earlier; and this fall of Damascus is not only the event which was regarded at the time as the crowning achievement of the Assyrians west of the Euphrates, but also that which set Tiglathpileser free to deal directly both with the coast towns of Phoenicia, and also with Cilicia,
}

\footnotetext{
Kummukh, and the frontier members of the Anatolian group of states. It consequently marks even more clearly than 742 a definite opportunity for Cyprus to separate itself from this Anatolian (or, as the Greeks called it, 'Phrygian') connexion, always supposing that it had not already done so in the former year, as indicated in the text. The year 732 is in fact the only possible alternative date to 742, and it is remarkable that Jerome's variant numeral should point so definitely towards it. In column J of the table on p. 88 I have accordingly reckoned all the dates above this point from both starting-points collaterally.
}

Rhodes and Crete, and the resumption of intercourse with Egypt, indicated by importation of amulets and scarabs of glazed ware. This latter phase can be approximately dated, by the occurrence of 'proto-Corinthian' imports, as contemporary with the first Hellenic settlements in Sicily; and these were ascribed by Greek tradition to the latter half of the eighth century, and particularly to the years between 740 and 730 .

In view of this aspect of the archaeological evidence, it is certainly noteworthy to find that Cyprus is preceded in the List of Thalassocracies by the Phrygians; that the dates, so far as we can reconstruct them, assign the transference either to 742 or to 732 ; that the same period is signalized by the first renewal of hostilities between the new Assyria of Tiglath-pileser, and the state or confederacy or group of powers which held the Taurus frontier, and its fortress outposts in Northern Syria; and that these hostilities lead straight to the collapse and surrender of Mita of Muski, and immediately afterwards to the submission of Cyprus to Sargon. I venture therefore to propose the following reconstruction, in outline, of the last half of the eighth century, so far as Anatolia and the Levant are concerned.
(i) The Phrygian conquest of Phrygia represents a prolongation southeastward of the Thracian and Phrygian irruption across the Hellespontine region of which we have repeated hints in Greek tradition, from Herodotus onwards ; and results in the establishment, in the interior of Asia Minor, first,
 Cilicia which the Mermuad Kings were twice prevented from annexing. Such a power, expanding eastwards during the period of Assyrian collapse in the early part of the eighth century, would find nothing to oppose its claims to the old 'Hittite' provinces south and east of Taurus, as far as Carchemish and the Euphrates. Its access to the Cilician coast, perhaps also to that of Pamphylia and the Eurymedon, would give it the same ports and the same maritime forests which later on permitted the pirate régime of the second and first centuries; and the co-operation of land-power and sea-power finds again its historic counterpart in the understanding between those pirates and Mithradates. In the north, we have already seen (p. 85, n. 12) that Greek tradition preserved the memory of a local 'thalassocracy of Sinope' in Pontus, which again finds close analogy in the Mithradatic age. In the west, the Greek legends of Midas, the preservation of his reputed offerings at Delphi, and the parallel which Herodotus evidently felt between his political position and that of Gyges, suggest that the same 'Phrygian' power extended seawards also here, and made touch with the infancy of Ionia. It is not to be expected that, in face of an Anatolian power of this kind, Cyprus, so rich in copper and timber, so defenceless strategically, and so close to Cilicia, would be able to hold out long: and we have seen how clearly its culture betrays its temporary indebtedness to the mainland.
(ii) On the other hand, no soouer did Assyria revive, from 745 onwards, and reconquer for the East the cis-Taurine districts, than the seaward parts of the 'Phrygian' régime broke loose from the rest, and formed, round their island citadel, the 'sea-power of Cyprus'; reinforced, in due course, if Sargon's ter-
minology may be pressed a little, by 'Ionian' adventurers from the west coast, who foreshadow that independent Ionia with which Gyges came into conflict so soon as Lydia too broke loose from the rest of Anatolia a generation later. \({ }^{96}\)
\[
\$ 19 \text {--The Upper Part of the List. }
\]

We have seen in the preceding sections ( \(\$(16-18\) ) that the numerals which are preserved by our List for places V, VI, VII offer a series of striking coincidences with actual crises in the Levant, as soon as they are dissociated from their Eusebian context, and reckoned backward from the earliest possible year for an Egyptian sea-power. Now this verification of the hypothesis with which we began not merely confirms our assumption as to the probable date and duration of that sea-power, but justifies us in accepting as probable the restoration which we have attempted of the numerals within the lacuna, in places VIII, IX, XI, and in concluding that the List, whatever its date, not merely agrees with the testimony of Herodotus, so far as that testimony extends, but goes back with accuracy into a period of history for which Greek tradition has hitherto yielded no systematic chronology of early date at all.

In the light of these considerations, it is clear that the numerals in places I-IV deserve much more respectful consideration than they have usually received hitherto; not because either Greek or Oriental records throw direct light upon them, but because, unless it can be shown that the List suddenly changes its character between place IV and place VI, the presumption is that it gives us, here also, a genuine record, in outline, of a very obscure period of history.

The dates given by the List, if its numerals be adjusted to the date 742 suggested above for the rise of the sea-power of Cyprus, are as follows:-

Sea-power of Lydians 1056-964 B.c. Eusebius 1168-1088 Jerome 1174-105̆6.
", "P'elasgians \(964-879\) в.c. ," \(1088-[1004]\),, 1056-1007.
", "Thracians \(879-800\) в.c. ", [1003-925] ", 1007-915.
", ", Khodians 800-767 в.c. ", [925]- 903 ", 915-893.
", ", Phrygians 767-742 13.C. ," \(903-[-] \quad, \quad 893-864\).
The dates given in brackets fall within a period where the Armenian version is defective; but they can be supplied, within a year, through the

\footnotetext{
\({ }^{96}\) How far the Herodotean designation of the predecessors of Gyges as 'Heracleids' may be taken to indicate a reputed kinship with the Heracleids of European Greece, who are of the same ultimately Northem extraction as the Thraco-Phrygian intruders, is a further question : for as early as the time of Herodotus the Heracles who is ancestor of Agron is also ancestor of Belus and Ninus, and has obviously become identified with the Oriental Heracles.
}

It is worth noting, however, that Agron's date, as given by Herodotus ( 505 years before Gyges), when reckoned from 686 , the probable date for Gyges' establishment in Sardis, brings the Heracleid conquest of Lydia into the third year of the Irojan War (1191) ; just a generation after the great campaign of the Phrygians on the Sangarius which Priam recalls in Ilicul iii. 184 ff .
circumstance that the sum of the numerals in places II, III, IV \((85+79+23\) \(=187\) ) is within two units of the difference between the initial date of place II and the terminal date of place IV ( 1088 13.C. -903 в.C. \(=185\) ).

In the absence of detailed evidence there is little to say about these dates; but a few detached points should be noted.
\[
\text { § 20.-The Sca-power of likodes. } 800-767 \text { в.с. }
\]

The variant, noted by Syncellus, which placed the Rhodians in place V, may have either transposed them with the Phrygians, or taken account of the lost place \(O\) which we have seen reason in \(\$ 13\) to assign to the Carians. The former alternative, though it would have the advantage of grouping four states of the Thraco-Fhrygian group together at the head of the list, does not seem to me probable, for the reasons already stated as to the connexion between Cyprus and the Anatolian region. The latter, on the other hand, supplies one further bit of evidence in favour of the initial Carian sea-power which we have been already led to suspect. In either event, Rhodes was well situated to play, as occasion arose during the Thraco-Phrygian domination, the same part as afterwards during the period of Galatian inroads.

The dates \(800-767\) fit very well the phrase of Strabo, to the effect that Rhodes had sea-power 'even for some years before the Foundation of the Olympia'; for the Olympic era would fall within the last ten years of this period. \({ }^{97}\) The phrase 'far from their own country' refers clearly to the reputed colonies of Massilia, \({ }^{93}\) Parthenope, Elpias, \({ }^{99}\) Sybaris, and the Balearic Islands; \({ }^{100}\) and the words \(\dot{\epsilon} \pi i \quad \sigma \omega \tau \eta \rho i a q ~ \tau \hat{\omega} \nu \dot{a} \nu \theta \rho \dot{\epsilon} \pi \omega \nu\) acquire a new meaning, in the present state of our knowledge of the disturbed condition both of the Aegean and of Western Asia Minor during the period of the Thraco-Phrygian irruption. For such a movement must be regarded as supplying much the same stimulus to emigration from the Asiatic coasts, as the 'Dorian Invasion' had supplied in the case of European Greece.
\[
\text { § 21.-The Sec-power of the Thracians. } 879-800 \text { в.c. }
\]

Herodotus knows of a great migration of Teucrians and Mysians into Europe in prehistoric times, and also of the Thracian origin of the Phrygians of Asia, but he gives no date for either. The later writers give much detail as to the Thracian raids on both sides of the Aegean, reaching as far as the

\footnotetext{




 \(\dot{\alpha} \nu \theta \rho \omega \dot{\pi} \pi \nu\). With this revised chronology,
}

Goodwin's reference (l.c. p. 24) of the 'Oג. \(\theta\) évis to the year 884 becomes unnecessary. \({ }^{98}\) Strabo, l.c.
\({ }^{29}\) Steph. Byz. s.vy.
\({ }^{100}\) Diodorus, v. 53. 54.

Maeander, \({ }^{101}\) Naxos, \({ }^{102}\) Attica, \({ }^{103}\) Boeotia, \({ }^{104}\) Phocis. \({ }^{105}\) The mention of Naxos is particularly instructive, as it shows that, like the Pelasgians before them (in Lemnos and Imbros), they were not confined to the mainland. Diodorus' statement that these Thracians held Naxos for 200 years does not affect the authority of the numeral 79 in the List: for it is much easier to get into an island than to get out again.

Some of these Thracian raids are given in a context which connects them with the 'Coming of the Heracleidae,' i.e. about 1050; but on the Asiatic side the Thracian invasion of Bebrycia (i.e. Bithynia), which is an event known to Herodotus, is associated by Jerome with the dates for the Thracian 'sea-power.' But the most graphic description, and also the most probable perspective for this whole phase of irruption is that of Orosius. \({ }^{106}\) Horum praeterea temporum medio interiacent exsilia naufragiaque Graecorum; and then he goes on:-fatorum ignari Thraces, nova in bella surgentes, et generalis tune per totam Asiam Gracciamque commotio.

\section*{§ 22.-The Sea-power of the Pclasgians. \(964-879\) в.c.}

I do not propose in this context to enter on an examination of the mass of traditions about the Pelasgians: only to point out that whereas in Homer \({ }^{107}\) Lemnos is still in the power of the descendants of its Argonautic conquerors, Greek tradition is unanimous in regarding its occupants as in some specific sense 'Pelasgian' from the dawn of Greek history down to the Athenian conquest of the island in the sixth century. \({ }^{108}\) It follows from this that the Pelasgic conquest is post-Trojan, \({ }^{109}\) and in all probability also post-Homeric.

On the other hand, Herodotus seems to assign the expulsion of the Argonautic or Minyan lords of Lemnos to the generation of the 'Coming of the Dorians'; and the description of Pelasgians in Crete, along with Dorians, in the Odyssey, \({ }^{110}\) would seem to throw back the date of such 'Pelasgian' sea-power as was requisite to reach the South Aegean, at least into Homeric time, if not as far back as the generation of the Trojan War. Indications such as these, coupled with the geographical hints supplied by the Trojan Catalogue as to the habitat of the Pelasgian allies of Priam, suggest that the conception of this people which underlies the inclusion of their name in our List at this point \({ }^{111}\) is that of a specific and well-localized people, of

\footnotetext{
\({ }^{101}\) Diodorus, v. 50.
\({ }_{102}\) Strabo, 321.
\({ }^{103}\) Strabo, 401. Note that this is partly ab
' Pelasgian ' inroad.
104 Thucydides, ii. 29.
\({ }^{105}\) Strabo, 410, 423.
\({ }^{116}\) i. 18.
107 Iliad vii. 467 ff .
\({ }_{108} \mathrm{Hdt}\). v. 26, vi. 136 ff .
109 Compare the tradition which comes to us
}
through Diodorus, 19. 53. 7, of a Pelasgian raid on Boeotia while the Boeotian army was away in the Troad with Agamemnon.
\({ }^{110}\) Odyssey xix. 177.
\({ }^{111}\) I hope before long to find occasion to discuss at greater length the results of an enquiry into the historical development of the Greek conception of 'Pelasgians' as presented to us in the texts of successive periods.

Thraco-Phrygian antecedents, settled in the time of the Trojan War in South-eastern Thrace, but expanding (or extruded) thence into the Hellespontine regions and the islands of the North Aegean, and as far as Crete and Attica in Homeric and immediately post-Homeric time. Thus, if 'Homeric time' may be interpreted, in the fifth-century sense, as a period ending about 950 , this conception of a Pelasgian sea-power lasting from 964 to 879 would fit very closely. We have therefore, here, if not an indication of the historic truth of the List, at all events an additional proof of its conformity to fifthcentury tradition, and of its independence of the main current of speculation. on this subject, in the fourth century and later.
§ 23.-The Sea-power of the Lydians (Maconians). 1056-964 b.c.
Here the List, and the Armenian Version, give a duration of 92 years : Syncellus is silent; the Armenian Version allows an interval of only 80 years. ( \(1168-1088\) в.c.) ; and Jerome an interval of 118 years ( \(1174-1056\) в.c.).

External evidence almost fails us; but our revised date, 1056 B.C., for the beginning of a Lydian or Maeonian sea-power is supported, as against either of the Eusebian dates (which are more than a century earlier), by the consideration already noted in discussing the true position of the Carians in the List, that this date falls in the early part of the generation to which. belonged the founders of Miletus and other principal cities of Ionia; and that these foundations, in their turn, were regarded in antiquity as marking the close of the Carian domination over the islands. Of the relations which existed between these new foundations and contemporary Lydia, we know nothing directly. But we may fairly infer that they stood, to begin with, in much the same relation as the 'Ionian and Carian' adventures of a later age maintained with Saite Egypt : and in that case a loosely organized coalition of sea-rovers hostile to the Carians, and banded together under the hegemony of a king of Sardis, may very well have passed for a 'sea-power of Lydia.'

Any theory of a Lydian sea-power ought clearly to take account of theHerodotean story of the Lydian origin of the Etruscans. \({ }^{112}\) Herodotus gives no precise date, but puts the whole episode back into the period before the coming of the Lydian Heracleids; and this, as we shall see presently, involves a date not later on his reckoning than 1217, and apparently much earlier. Other fifth-century authorities adopted a similar \({ }^{113}\) estimate, and dated the Tyrrhenian arrival in Italy eighty years before the Trojan War (=12741264). Thucydides, however, \({ }^{114}\) brings the period of tumult in Italy much lower, placing the expulsion of the Sikels from Italy into Sicily, which is one of its later phases, as low as 1030 ('about 300 years before the Greeks came to Sicily).' This would fall within the period of the Pelasgian sea-power, on Jerome's reckoning, and would agree with the data in Herodotus as to the Pelasgian occupation of Lemnos, which so many later writers describe as

112 Herodotus, i. 94.
\({ }^{113}\) I'hilistus and Hellanicus: see Dionys.

Hal. 1. 28.
\(11+\) vi. 2

Tyrrhenian. For Hellanicus, meanwhile, all this sequence of events seems to have been prior to the coming of the Tyrrhenians into Italy; and, consequently, not later than about 1280, if Hellanicus was consistent in his dating. Clearly therefore there were in the fifth century two distinct theorics about the Tyrrhenians in Italy. One, represented by the statements of Herodotus, Hellanicus, and Philistus, placed their arrival in Italy considerably earlier than the Trojan War, and connected it with the series of movements which we know as the Great Sea Raid of Merenptah; the other, represented by Thucydides, regarded its sequel as still in progress as late as 1030 , or about the period of the Pelasgian sea-power : and it is curious to note here that Hellanicus, though he indicated the earlier date, seems to have adopted a Thessalian and Pelasgian, not a Lydian, origin for the Aegean emigrants. He has in fact adopted the date of the one version, and the content of the other.

Were there then two views current in antiquity as to the date of the Lydian sea-power also? I think there probably were. On the one hand we have the statement of our List, assigning this sea-power to a post-Trojan date, 1056-964; and to this we must add the curious statement of Eusebius that Sardis was captured by the Cimmerians 'for the first time' in 1078. On Jerome's dating of the Lydian sea-power, 1174-1056, this event falls right in the middle of it; but on the dating in the Armenian version, 1168-1088, it falls "ten years after its close; and if, as we have already scen to be probable, one of the elements which go to make up the discrepancy between the earlice dates in the two Eusebian Lists is the interval of ten years which is apparent in places IV and IX, it is not improbable that the true Eusebian dates for the Lydian sea-power may be ten years later; and, if so, its close will fall not iu 1058 but in 1078, the very year of the Cimmerian raid. Here therefore we seem to have an indication of the actual event which cost the Lydians their sea-power; and an indication of the quarter from which their successors the Pelasgians were imminent, which is entirely in accord with the evidence of Homer and Herodotus as to the earlier seats of that people.

There is, on the other hand, more than one piece of evidence which suggests that a Lydian sea-power of some kind was believed to have existed considerably earlier. Stephanus \({ }^{115}\) (quotes Xanthus the Lydian for the statement that Ascalon in Palestine was founded by Ascalus, son of Hymenaeus, and brother of Tantalus, and ascribes the initiative of this colonization to a Lydian king Aciamus. Athenaeus \({ }^{116}\) also quotes, from the same Xanthus, a story that Derketo, who plays a considerable part in the early mythology of Western Asia Minor, \({ }^{117}\) was drowned in the lake of Ascalon by the Lydian

\footnotetext{
115 S. \(\tau\). 'A \(\sigma \kappa \alpha ́ \lambda \omega \nu\).
116 8. 37, p. 346 D.
117 Sce Stark, Gaza (Jena, 1852), 1p. 41 ff , and Nicolas of Damascus, fr. 24-26 (Miiller, N' \(_{\text {I }}\) II.G. iii. pp. 371-2). In E.M., s.v. Káüatpos Derketo marries the river-god hayster. The two stories
}
together look almost like a Levantine counterpart of an Arethusa-legend; and in view of the current probability of a very early Cretan (or at any rate South Aegean) settlement on this coast, one should perhaps compare also the Cretan legends of Britomartis.

Mopsus or Moxus. The former of these legends would date the foundation of Ascalon about three generations before the Trojan War, or about 1300 ; for Tantalus is father of Pelops, and great-grandfather of Agamemnon ; and this interval, reckoned back from the date 1194-1184 would bring the foundation of Ascalon right into the middle of the great Sea-Raids of Ramessid time (1319-1268). The latter legend brings Ascalon into connexion with the very obscure cycle of Mopsus-legends, which cluster mainly round certain early Aegean colonies in Cilicia, and round the gen - ations of the Argonautic Expedition and the Trojan War. \({ }^{118}\) Now this period of sea-raiding in its turn just covers the period from the great Sea-Raid of Merenptah's time to that of Rameses III., which falls immediately before the date of the Trojan War. \({ }^{119}\)

Another corollary follows from a comparison of the Herodotean evidence. The Trojan War fell, according to Eusebius, between 1194 and 1184; but according to Herodotus \({ }^{120}\) at least 800 years before his own time; not later that is than about 1230, and possibly a decade or two earlier. This is not the place to discuss this important date in detail ; but we should perhaps note, as bearing on the chronological limits for a Lydian sea-power, that the Herodotean date for the establishment of the Heracleids in Lydia ( 505 years before Gyges) works out, when calculated from the Herodotean date for the accession of Gyges ( 712 b.c.) so as to fall in the year 1217 b.c. Herodotus therefore clearly regarded the coming of the Heracleids in Lydia as a crisis not earlier than the Trojan War, and apparently, on his own chronology, nearly a generation later.

Now it is not likely that a Lydian sea-power would survive a crisis of this kind, involving a change of masters, without grave peril; and we are probably justified in regarding the date 1217 as one which must fall quite outside the limits of this sea-power, either above or below. Herodotus' sketch of the Tyrrhenian emigration suggests, as we have seen, that he regards the coming of the Heracleids to Lydia as a subsequent event, and the LydoTyrrhenian emigration as pre-Trojan; and we are left therefore without any fifth-century evidence for such a theory of Lydian sea-power as our list suggests except the phrase of Thucydides already quoted, which points somewhat in the direction of a date not long before 1030 .
§ 24.-The Pre-Lydian Sea-power. 1184-1056 b.c.
Even the Eusebian dates (1168 and 1174) do not carry up the Lydian sea-power to the Eusebian date for the Fall of Troy, in 1184: and in pro-

\footnotetext{
118 See references in Stark, Gazet, p. 43, 11. \({ }^{2}\).
\({ }_{119}\) Bochart, commenting on this passage (Phuleg (ed. 1651), p. 98) notes that the Lydians acquired maris imperium Cretensibus ercptum, but gives no authority for the statement beyond a reference to the Eusebian Chronicon.

In his version of the Eusebian Canon, however, under the year of Abraham 1341, he read Post Caras mare oblinuerunt Lydi, which, if it
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}

\footnotetext{
was a genuine variant for Lesbii would look like a reminiscence of the top of our List in the un-decapitated form which I propose to restore. But here too Bochart gives no allthority; and the contemporary confusion of the Scriptural Lubin and Ludir, makes it only too likely to have been a recent emendation or a blunder. Compare for example Bochart's own index, s. 2 .
120 ii. 145.
}
portion as we bring down the Lydian dates, this hiatus expands. We have seen, however, already in \(\S 13\), that Greek tradition, at least as far back as the fifth century, assigned a Carian, not a Lydian sea-power, to the period which immediately succeeds the Trojan War; and we have stated there the case for inferring that the List, in the form in which it has come down, is imperfect at the top, and should be completed by prefixing this Carian sea-power in ' place O.'

\section*{§ 25.-Conclusion.}

All these earlier 'sea-powers,' however, add very little either to our understanding of the List, or to our knowledge of the period of history to which they must be referred. The essential point is the support which they give to the general view of these centuries as a time of violent aggression on the part of new peoples in the North-Eastern half of the Aegean, from Thrace to Caria; and to the interpretation which they permit, first of the sea-raids, in the Egyptian record, as an earlier phase of the same movement, and second, of Ascalon and the other Philistine settlements in South Syria, as one of its more permanent results.

My main object, however, is gained, if I have established the conclusion, first, that the lower part of the Thalassocracy List, as we have it now, corresponds in general,-and never positively conflicts-with the data of our only large fifth-century authority for early Greece, Herodotus : second, that its data as to the sequence of Cyprus, Phoenicia, and Egypt may be taken as literally exact; third, that the allusion to the Carians in Diodorus v. 84 supplies the clue to the original heading of the List, and also to the corrupt numerals which intervene between Phoenicia and Lacedaemon; and fourth, that, as the upshot of the whole enquiry, the Thalassocracy List is a mutilated but genuine document of approximately Periclean date, and embodies data which can be shown to be historically accurate far back into the latter half of the eighth century b.c.

John L. Myres.

\section*{THE ORIGIN OF THE TYRANNIS.}

\section*{Introduction.}

It is a commonplace that the age of the early tyrants was an age of extraordinary commercial development. The invention of coinage, the most important invention in the history of commerce, dates from that age. In what personal relationship did the tyrants stand to this commercial development? They are often assumed to have been merely one of its passive products. \({ }^{1}\) Is it not possible that the founder of the tyranny was the man who turned to greatest advantage for political purposes the unique commercial conditions of the age in which he lived? Thucydides \({ }^{2}\) connects the rise of tyrannies with money making. Does not the saying \(\chi \rho \eta \eta^{\prime} \mu a \tau^{\prime}\) à \(\eta^{\prime} \rho\), which dates from this time, suggest that the tyrants were the leading members of this new class of nouveaux riches, and that they owed their political supremacy to their previous commercial predominance? The indications are of course exceedingly slight. Only in two cases, those of Samos and Athens, where the tyranny arose unusually late, is there any solid material for our investigation. It will be best to consider in detail these two cases only, merely indicating in the barest outline how the seventh century legends and traditions may be severally brought into immediate connexion with the commercial theory.

\section*{Samos.}

The Samians had from early times been great sailors \({ }^{3}\) and shipbuilders, \({ }^{4}\) their ships being engaged mainly in the carrying trade. \({ }^{5}\) From early times too they had enjoyed a great reputation as workers in metal, especially the fine metals, \({ }^{6}\) and they were no less famous for their woollen manufactures. \({ }^{7}\)

\footnotetext{
\({ }^{1}\) For the generally received view concerning the genesis of the tyramnis see Beloch, G.G. i. 312, 313 ; Plass, Dic Tyrannis, i. 120, 121 ; Guiraud, La main-d"urvre industrielle dans l'ancicnne Grece, 29 ; Radet, La Lydie, ch. iv. \({ }^{2}\) i. 13.
\({ }^{3}\) Hdt. ii. 178 ; iii. \(47,48,59\); v. 99 ; Et.
 267 A ; Plut. De Mal. Hdl. 22 ; Q. Gr. liv.
}
\({ }^{4}\) Thuc. i. 13 ; Pliny vii. ch. 57.
\({ }^{5}\) Hdt. iv. 152.
\({ }^{6}\) Collignon, La seulpturu grecque, i. p. 151. The Samian voyage to Tarshish ( 620 b.c. Macan, Hdt. 4, 5, 6, i. p. 106) gives the latest date for the beginning of this industry; Apul. Florid. ii. 15.
7 Theocr. xv. 125.

The island was not, however, exclusively commercial. There was a powerful landed aristocracy called \(\gamma \in \omega \mu\) ó oo,\({ }^{8}\) who doubtless owned the rich Samian oliveyards. \({ }^{9}\) The power of the \(\gamma \epsilon \omega \mu\) ópot explains the late date of the tyranny in Samos.

When at last the tyranny was established by Polycrates, the tyrant is found controlling the commercial activities of his state. All through his reign Polycrates was a great sailor and ship-owner. \({ }^{10}\) He built the famous \(\pi \epsilon \rho \grave{\imath} \lambda_{\iota \mu \epsilon ́ v a} \chi \bar{\omega} \mu a,{ }^{11}\) and was even credited with the invention of a new type of boat, called the Eapaion. \({ }^{12}\) The general conception of the Samian tyrant is indeed that he used his ships in naval and piratical operations rather than for any peaceful purpose. Thucydides \({ }^{13}\) says of him vavtıк \(\hat{\omega}\)
 \(\tau \hat{\omega}\) ' \(\mathrm{A} \pi o ́ \lambda \lambda \omega \nu \iota \tau \hat{\omega} \Delta \eta \lambda i \varphi\). But even the capture of Rheneia, which Thucydides seems to regard as the principal warlike achievement of Polycrates' fleet, was one that may have had most important commercial consequences. By capturing Rheneia Polycrates became practically master of Delos. He celebrated the Delian games. \({ }^{14}\) Considering the unrivalled situation of Delos, it is not unlikely that the festival was even in the sixth century the \(\dot{\epsilon} \mu \pi о р \iota \kappa o ̀ \nu ~ \pi \rho \hat{a} \gamma \mu \alpha^{15}\) that it was in later ages. \({ }^{16}\) The tyrant's war with Sparta was in all probability a commercial struggle started by Corinth. \({ }^{17}\) Systematic piracy again was probably Polycrates' only way of maintaining the unequal struggle with Persia. In any case Polycrates "employed his fleet for commercial purposes as well as warlike. He traded with Egypt, \({ }^{18}\) which was the one Eastern country that was during most of his reign independent of Persia and open therefore to Samian trade. The statement of Clytus the Aristotelian Полvкрáтך тòv ミaцíw тúpav had a personal interest in the transport trade of the people who \(\mu\) é \(\gamma \boldsymbol{\sigma} \tau\)
 There is unfortunately nothing to show that he employed his own vessels in форт \(\quad\) уía.

\footnotetext{
\({ }^{8}\) Plut. Q. Gr. 57.
\({ }^{9}\) Apul. Florid. ii. 15 ; Aesch. Pers. 883.
\({ }^{10}\) Thuc. i. 13 ; Hdt. iii. 39 ; cf. also Euseb. Chron. Armenian version, mare obtinuerunt Samii, just after the notice of Polycrates becoming tyrant. Latin version Dicearchiam Samii condiderunt, just after the notice of Polycrates' accession.
\({ }^{11}\) Hat. iii. 60.
12 Hesych. इauakos тро́тos; Phot. इa \({ }^{2} \alpha i \nu \eta\); Plut. Pericles xxvi. ; Athen. xii. 540 e .
\({ }^{13}\) j. 13.




}

 \(\sigma \cup \operatorname{li}^{\prime} \beta \eta\).

15 Str. x. 486.
\({ }^{16}\) Is it conceivable that the repeated purifications of Delos in the sixth and fifth centuries may not only have had a religious signification, but may also have meant the repeated restriction of a commercial element that was constantly reasserting itself?

17 Hdt. iii. 47 and 48, where observe the causes to which Herodotus attributes the war.

18 Cf. Helt. iii. 39 with Diod. i. 95 and 98.
19 Ath. 540 c .
\(\because 0 \mathrm{Hdt}\). iv. 152 .

It is difficult again with the evidence at our disposal completely to identify the tyrant with Samian industry. There is no direct evidence that Polycrates was engaged in the metal industry during his reign, \({ }^{21}\) but he seems to have patronised and developed the Samian manufacture of woollen goods. Among the things which Athenaeus ( 540 c , quoting Clytus, ef. supra) declares that Polycrates when tyrant introduced into Samos are \(\epsilon \in \kappa\) Мı \(\lambda\) ท́tou \(\pi \rho o ́ \beta a \tau a .{ }^{2: 2}\)

Polycrates the tyrant has therefore been shown to have taken some part in the commercial and industrial activities of the city that he ruled. \({ }^{23}\) There is strong evidence that he was engaged in the leading branches of Samian industry before he became tyrant, and that his political power was the direct result of these activities. Athenaeus, in the passage above quoted, still speaking of Polycrates, says \(\pi \rho o ̀\) ò̀ тồ ти \(\rho a \nu \nu \hat{\eta} \sigma a \iota ~ к а \tau а \sigma к є v a-~\)
 \(\mu \in i \zeta o v a \varsigma ~ i ́ \pi o \delta o \chi a ̀ s ~ \pi o \iota o u \mu e ́ v o l s . ~ I t ~ c o u l d ~ s c a r c e l y ~ b e ~ m o r e ~ d e f i n i t e l y ~ s t a t e d ~\) that Polycrates owed his throne to his wealth in \(\sigma \tau \rho \omega \mu \nu a i\) and \(\pi о \tau \eta \dot{\eta} \rho i a\). The \(\sigma \tau \rho \omega \mu \nu a i\) are surely the manufactured article for which he introduced the Milesian and Attic \(\pi \rho o{ }^{\prime} \beta a \tau a\). The word is apparently technical. Theocritus uses another form of it ( \(\epsilon \sigma \tau \rho \omega \tau a \iota\) ) in the passage where he refers to the famous wools of Miletus and Samos. \({ }^{24}\)

\footnotetext{
\({ }^{21}\) Note however that he was the patron of Theodorus, who was famous not only as a jeweller but also as a maker of metal vases (Hdt. i. 51, Ath. xii. 514f). It will be shown immediately that Polycrates owed his throne to the катабкєий of потйрta. The потйрıa were almost certainly of metal. тоти́pıa кєрацєâ are only once mentioned in the passages quoted by Liddell and Scott (Ath. 464 a), whereas there are numerous passages in which \(\pi\) otnpia are specifically stated to be of metal ( \(\chi\) d́ \(\lambda \kappa \in \alpha \mathrm{Hdt}\). ii. 37 ; à \(\rho \gamma v \rho \hat{a}, ~ \chi \rho u \sigma \hat{a}\) C.I. \(1387,19,27\) et alibi. Hdt. iii. 148). The fact of their being lent for \(\mu \in\{\zeta o y a s\) vi \(\pi 0 \delta 0 \chi\) ás is most decisive of all. It may well be the case therefore that Theodorus was something more to Polycrates than merely his crown jeweller and silversmith. Some ancient authorities held that Thendorus flourished 150 years before Polycrates, Plin. N.H. xxxv. 43 (152). Theodorus is always associated with Rhoecus, and the two names may have been borne in alternate generations by one family of artists. This would not require the Rhoeci to have flourished longer in Sanios than the Wedgwoods have in Staffordshire. Whether or no this explanation holds, the divergeuce in dates points to the industry having flourished for a long time in the island. If one date for Theodorns be insisted on, that of Herodotus (i. 51), which makes the artist the elder contemporary of
}

Polycrates, must of course be chosen (see Frazer, Paus. iv. p. 237).
\({ }^{22}\) Ibid. 540 D (from Alexis) \(\pi \rho \delta \beta \alpha \tau \alpha \quad \& x\)
 Polycrates' support of Arcesilaus, the banished tyrant of Cyrene, in \(\mu \eta \lambda о \tau \rho o ́ \varphi o s_{0}^{*} \Lambda \wedge \beta^{\prime} \eta\) (Hdt. iv. 155 , cf. the oracle in iv. 159 where reference is made to Cyrenean fleeces).
\({ }^{23}\) One reported act of Polycrates seems quite out of keeping with his character as a great merchant. He is said to have debased the coinage (Hdt. iii. 56). But Herodotus mentions this report only to reject it as \(\mu a \tau \alpha+\delta \tau \epsilon \rho o s\). In any case it was only a desperate expedient for getting rid of an invader.
\({ }^{24}\) It seems probable that Polycrates' brother and partner at first in the tyranny was also originally a merchant or manufacturer of woollen goods. At any rate after his banishment we find Darius wanting to buy 3 र \(\chi^{\lambda \nu} / \mathrm{s}\) from him. According to Herodotus (iii. 139) it was the one that Syloson was at the moment wearing. The incident took place in Egypt. Syloson was one of the Greeks who had followed Cambyses there. Some of these had come кат' \({ }^{2} \mu \pi о р i \eta \nu\), some \(\sigma\) тратєvó \(\mu \epsilon \nu 0\), some as
 Mé \(\mu \phi\) at the moment of Darius' request, replied
 \(\delta \varepsilon \begin{gathered}\& \\ \lambda\end{gathered} \lambda \omega\). The incident suggests that Syloson was in Memphis кaл \(\boldsymbol{z}^{\prime} \mu \pi о \rho i \eta \nu\) as a merchant in

Polycrates probably had a connexion, direct or indirect, with Samian shipping before his accession, for the Samian silversmiths got their silver from Spain. \({ }^{25}\) There is however no evidence that Polycrates procured his silver in his own ships.

The two references in Athenaeus, ' the one to Polycrates' importations as tyrant, the other to his bribes \(\pi \rho o ̀ ~ \tau o \hat{v} \tau \nu \rho a \nu \nu \hat{\eta} \sigma a l\), though from the same passage, are not from the same source. The first is explicitly from K入útos ó'Aрıбтотє入ıкós. The second is presumably from Alexis, who has been definitely quoted as the authority for the previous sentence. Even if Athenaeus is no longer quoting Alexis, there is not the least reason for thinking that he is quoting Clytus again.

In his domestic policy Polycrates won great fame as the promoter of great public works. The sums that he spent and the number of hands that he employed on the épүа Подикра́тєıa must have been very large. \({ }^{26}\). He maintained his power by means of mercenaries, native, it should be noticed, as well as foreign. \({ }^{27}\) These mercenaries were undoubtedly a development of the \(\pi \epsilon \nu \tau є \kappa \alpha i \delta \epsilon \kappa a\) o \(\pi \lambda i \tau a \iota^{28}\) with which he had seized supreme power.

It is natural to ask at this point how far the labour employed by seventh and sixth century capitalists was free labour. Free labour must of course have been employed to a different extent in different occupations, and the question must be decided in detail for the different industries with which the tyrant will be found connected. In Samos, after the fall of the tyranny, a large number of slaves purchased the citizenship. \({ }^{29}\) This might seem a reason for assuming that Polycrates had relied on highly trained servile labour, which the city had not known how to deal with after the fall of the tyranny. There is however a simpler explanation. Syloson, when restored by Persia, had almost annihilated the free population. \({ }^{30}\) As regards shipping in particular the evidence points to the general use of free labour. Thucy-
 were much easier to procure than in the sixth century, were nevertheless free men working for pay. Polycrates' \(\tau \epsilon \chi \nu \hat{\tau} \tau a \iota\) were free men engaged \(\epsilon \pi i\) \(\mu l \sigma \theta o i ̄ \varsigma \mu \in \gamma i \sigma \tau o \iota s .{ }^{32}\)

Speaking generally, free labour was much more employed in \(\chi \in \iota \rho о \tau є \chi\) via in the seventh and sixth than in the succeeding centuries. \({ }^{33}\) Büchsenschutz \({ }^{34}\) in a most instructive passage points out that in early times the \(\tau \in ́ \chi\) val were
\(\chi^{\lambda} a \nu i \delta \epsilon s\). The unromantic commercial aspect of the transaction between Syloson and Darius, which is already obscured in Herodotus' account, has quite disappeared in that of Strabo (xiv. 638), who makes no mention of Darius' offer to purchase.
\({ }^{25}\) Hdt. iv. 152.
\({ }^{26}\) Ar. Pol. viii. 11, p. 1313 b ; Athen. 540 D.
\({ }^{27} \mathrm{Hdt}\) iii. 39 and 45.
\({ }_{23}\) Hdt. iii. 120.
\({ }^{29}\) Suidas, इa \(\alpha i \omega \nu \delta \delta \bar{\eta} \mu o s\).
 \(\chi \omega \rho \hat{\eta} \eta\); Phot. and Suid. loc. cit. \(\sigma \pi d \nu \in t \tau \bar{\omega} \nu\)


\({ }^{82}\) Ath. 540 D ; cf. Hdt. iii. 131.
 (contempt of \(\chi \epsilon!\rho o \tau \epsilon ́ \chi \nu a l\) ) \(\pi\) ávtєs ol \({ }^{\prime \prime}\) Eג \(\lambda \eta \nu \in s\).
\({ }^{3}\) Besitz und Erwerb, S. 321.
m the hands of freemen, \({ }^{35}\) but each man was his own master, there being no factories or division of labour. In classical times there was considerable division of labour, and there were businesses employing a large number of hands, \({ }^{36}\) but citizens took small part in them. \({ }^{37}\) The age of the tyrants was therefore the age in Greek history when apart from all details of evidence there is the greatest a priori possibility of an individual having secured the political power which falls naturally to the employer of organised free labour on a large scale. The employment of servile labour in commercial enterprises was the result, not the cause, of the commercial expansion and development of the saventh and sixth centuries.

\section*{Atriens.}

The chief early industry of Athens was pottery: \({ }^{38}\) the large finds of Dipylon ware show that from an early time Attic pottery had a character of its own. \({ }^{39}\) But Athens was not exclusively commercial like Corinth and Aegina. Her large territory made her, like Samos, partly agricultural. To this fact may be due her failure \({ }^{4 n}\) to compete commercially with Aegina and Corinth in the seventh century. Hence too, as in Samos, the late rise of the tyranny. There was of course the attempt of Cylou, but Cylon failed because, though wealthy (ỏ \(\lambda \nu \mu \pi \iota o \nu i к \eta \varsigma)\) and influential (סvvarós), he could not possibly, in the Athens of his day, be the leader of any dominant organised commercial activity. He was merely a progressive member of the aristocracy ( \(\tau \hat{\omega} \nu \pi a^{\prime} \lambda a \iota \in \dot{\nu} \gamma \epsilon \nu \eta \prime s\) ) connected with the great band of merchant princes only by marriage. \({ }^{41}\) The attempt and its result are both what might have been expected from the position of Athens at the time. Athens never became the ideal home for a tyranny. Soon after Cylon's attempt she did indeed begin to supplant Corinth in the pottery trade, \({ }^{42}\) and the influence of the rich city merchants and exporters must have greatly increased, but Solon's measures for encouraging the growth of olives and the exportation of olive-oil belong also to
 must have increased almost equally. No merchant therefore attempted to secure all the !labour of the town and seize the tyranny. The country aristocracy employed labour too. Tyranny was almost impossible.4 But

\footnotetext{
\({ }^{35}\) Hes. Op. 309 रpyov oủḋ̀y orvetoos and Homer, passim ; cf. Plut. Sol. xxii. apds tàs те́xvas ётрє廿є тоѝs тодitas.
\({ }^{38}\) Demosth. кат' 'Aфбßov, p. 816 ; Lysias, xii. 19 ; Xen. de Vect. 4. 14 (Nicias' mining works).
\({ }^{37}\) Ar. Pol. iv. 9, 1328, ob゙tє ßáyavaov Blov

\({ }^{38}\) Pliny, vii. 57 (Delphin. p. 1425), Figlinas Coroebus inuenit Atheniensis.
\({ }^{38}\) Perrot, vii. p. 160.
\({ }^{40}\) Hdt. จ. 82-88.
}

\footnotetext{
\({ }^{41}\) Thuc. i. 126.
\({ }^{42}\) B. M. Vases, vol. ii. Introduction p. 2.
\({ }^{43}\) Plut. Sol. 24.
\({ }^{4}\) Another proof that Atheus was at this time too backward commercially to have beeu overcome by the wealth of a would-be despot and to have 'stablished a tyrant, yielding to gain' (Theog.) is that the first Athenian colony was not founded till between 560 and 555 , during the first reign of Peisistratus, Busolt, i. 2, 316 ; Anm. 3.
}
though the wealth and power of the land-owning aristocracy prevented any Athenian merchant from making himself tyrant, the commercial development of Athens must have made it daily more difficult for the Athenian aristocracy to exclude the rich merchants from political power. Hence the leading man at Athens at this time was not a mere millionaire, as in Corinth and the other more exclusively trading states. Solon had indeed some experience of trade, \({ }^{45}\) but he was essentially a politician with a gift for finance, not a financier with political ambitions. He became not a tyrant but a lawgiver.

Solon tried to provide for the difficulties which he saw resulting from the existence of two evenly-matched parties, the landowners of the plain and the traders of the shore. The tyranny arose from the formation of a new interest, that of the \(\Delta\) เáкрьo七, by Peisistratus. \({ }^{46}\) Of the means by which Peisistratus gained the throne less is known than is often imagined. The ruse by which he secured his club-bearers and the Acropolis is a detail. Peisistratus was careful to observe the Solonian constitution, especially before his third restoration. It is therefore not to be expected that the means that he took originally to secure his power would have been patent to everybody. But after his second restoration he threw off the mask more.




 \(\beta \epsilon \beta a i \omega\) s. That is to say, Peisistratus used money gained in business ( \(\chi \rho \eta \mu a_{-}\) \(\tau \iota \sigma \mu \circ \rho)\) to compass his second restoration. The question arises, did Peisistratus use similar means, only less openly, to secure his original d́ \(\rho \chi \dot{\eta}\) ? in other words, was Peisistratus a merchant and financier before he became tyrant? What evidence there is leads to the conclusion that he was.

Peisistratus became tyrant originally as leader of the \(\Delta \iota a ́ \kappa \rho \iota o \iota,{ }^{49}\) Now M. Guira'd in his interesting but sober account of La main-d'awre dans l'ancicnne Givèce ( \(\mathrm{pp} .30,31\) ), sees from the words of Herodotus \(\chi \rho \eta \mu a ́ \tau \omega \nu\) \(\tau \hat{\omega} \nu \mu \epsilon ̀ \nu\) aủ \(\operatorname{có}^{\theta} \theta_{\epsilon \nu}\) к.т. \(\lambda\). that Peisistratus worked the mines at Laureium. Can the \(\Delta\) túкрıo be the mining population of Attica, almost exclusively in the employment of the great mine owner Peisistratus, who carried on operations in Thrace as well as Attica, and was in close commercial connexion with the famous mining industries of Euboea? \({ }^{50}\)

\footnotetext{
\({ }^{55}\) Plut. Sol. 2.


\({ }^{47}\) Hdt. i. 64.
\({ }^{48}\) Resp. Ath. 15 of l'eisistratus' second banishment.
\({ }^{43}\) Ar. Resp. Ath. 13, 14.
\({ }^{50}\) Cf. Alcaeus fr. Халкıঠเкаl \(\sigma \pi \alpha \dot{\alpha} \theta a t\); Aesch.
}
 name Chalcis. Hesychius says that there were alakpitis in Euboea as well as in Attica. stákpiot is a literal translation of Bergleuten, the German for miners. The mining population of South Wales is always spoken of in Cardiff as the people up (in) the hills.

There are two arguments against this conjecture.
(1) The \(\Delta \iota\) и́крьo九 were a political faction, i.e. citizens. Could citizens work in mines?
(2) The \(\Delta\) ıакрia was a district. The orthodox view places this district away from the mines.
(1) In classical times the mines were worked almost entirely by slaves. \({ }^{51}\) Only very occasionally poor citizens worked their own allotments. \({ }^{52}\) There is not a single instance of a citizen working in a mine for wages. \({ }^{53}\) This does not however prove that citizens did not work for wages in the mines in Peisistratus' time, when, as has been pointed out in dealing with Samos, the conditions of labour were unlike anything seen in Greek history before or after. In fact the words of Solon \({ }^{54}\) show that it was quite usual for citizens to work in mines with their own hands, though whether for pay or on their own account is not stated. \({ }^{55}\) Plutarch describes the \(\delta \iota a ́ \kappa \rho \iota o \iota ~ a s ~ \theta \eta \tau \iota \kappa o ̀ s ~ o ̈ \chi \lambda o s . ~\) From this fact Cauer \({ }^{56}\) reasonably conjectures that they were \(\mu \iota \sigma \theta \omega\) тoi (Lohnarbeiter).
(2) It is generally assumed that the triple division of Attic territory into \(\pi \epsilon \delta i o \nu, \pi\) ápaдos, and \(\delta \iota a \kappa \rho i a\) is definite and absolute, and that it is for instance out of the question that coast land north of Brauron was ever called mápaخos, or mountain land south of Brauron סıaкрia. The evidence for the triple division is in fact of the weakest possible. It consists of a passage in Thucydides \({ }^{57}\) which suggests that the tongue of Attica running out into the Aegean was called par excellence the coast land, and one from Hesychius, which by a clever but not certain emendation is made to tell us that \(\dot{\eta} \Delta\) tакрia stretched from Parnes to Brauron. \({ }^{58}\) Now it was very natural that the name Mountain should be given to the part of Attica where there were most mountains, and the name coast land to that which had in fact a larger proportion of coast to Hinterland than any other portion of Attica. But in regard to the evidence of Thucydides, \({ }^{59}\) we cannot assume that the Peloponnesians ravaged the whole of the apex of the triangle. They may well have marched down one coast and up the other. In fact this is just what Thucydides in the very next

 again to Hesychius' evidence, it would only be valid for the purpose of the argument if his definitions were mutually exclusive. As a matter of fact he never mentions \(\tau o ̀ ~ \pi \epsilon \delta i o \nu\) at all, and describes \(\dot{\eta} \pi a \rho a \lambda i a\) as \(\dot{\eta}\) 'A \(\tau \tau \iota \kappa \eta\), \({ }_{\epsilon}^{\prime} \nu \theta \epsilon \nu\) каì \(\dot{\eta} \nu a \hat{s} s \pi a ́ p a \lambda o s\). Can it be claimed, in view of the fact that Strabo

\footnotetext{
\({ }^{51}\) Hyp. fr. 33 Blass; Xen. de Vect. 4. 14 and 15 and passin ; Thuc. vii. 27.
\({ }^{52}\) Dem. xlii. § 20.
5s Ardaillon, Les Mines de Laurium, p. 91.
\({ }^{54}\) Bergk 12 (4). 49, 50.
\({ }^{55}\) Pythes of Phrygia is reported to have used citizen labour in his mincs a generation after Polycrates (Plut, de Mul. Virt. ii. 262).
\({ }^{56}\) Parteien in Megara u. Athen, p. 85.
\({ }_{57}\) Thucydides does iudeed speak of \(\tau \boldsymbol{\nu}\)
}

\footnotetext{
\(\pi \alpha^{\prime} p a \lambda o \nu \gamma \hat{\eta} \nu \kappa \alpha \lambda o v \mu \epsilon ́ v \eta \nu\), which suggests that the word \(\pi \alpha \rho a \lambda o s\) is conventional. But by this expression Thucydides surely only means that this was the Attic word for the Attic coast. His own word for the Peloponnesian shore in the very next sentence is \(\tau \mathrm{a} ~ \ell \pi ı \theta a \lambda \alpha \dot{\sigma} \sigma a \alpha\).
 yos (editors ẽ́ws Bpaupūvos).
\({ }^{59}\) ii. 55.
}
uses the word mípaخos of all the coast as distinguished from the Hinterland－ mentioning \(\dot{\eta} \pi a \rho a \lambda i a \dot{\eta} \kappa a \tau a ̀ ~ \Sigma a \lambda a \mu i ̂ \nu a\) and the maja入ia from Sunium to Oropus－and that an inscription of about 320 b．c．（I．G．ii．1059）mentions тарадía as part of the land of the \(\delta \hat{\eta} \mu \sigma s\) Пєьрaьєús－that the evidence for the conventional view is sufficient？

It is far more probable that mountainous country，wherever it occurred in sufficient bulk to distinguish it in character from that of the sea－faring population，would be included under the name \(\delta \iota a \kappa p i a\) ，and that sailor，even if they did happen to live north of Brauron，sympathised with the views of the＇shore．＇Doubtless it would be difficult in some cases to determine where the line should be drawn，but it is against all reason to include in the sea－ faring population the miners who inhabited the mountainous Hinterland of the apex of the Attic triangle．It is worth remarking that the mines which Peisistratus worked were not those nearest the sea，but were well inland at Maronea，a place where the ground varies from 170 m ．to 370 m ．in height （Bursian Gr．Geogr．i．254）．\({ }^{60}\) If once it be admitted that the mining popula－ tion of the rouvòs Souplaкòs formed part of the \(\Delta\) cíкрıol，it can hardly be disputed that they must have been politically more important than the scattered inbabitants of the Northern Uplands．

When once established Peisistratus took care to control the labour of the city by legislation．\({ }^{61}\) There is no mention of his having regulated the coinage， but his son Hippias，who appears to have followed closely in his father＇s steps，declared the coinage out of currency，called in all the coins at a reduced
 what Hippias did was to issue not the same coins again，but the same silver recoined with a more refined type．Hippias doubtless made some immediate profits himself from this recall and re－issue of the coinage，but he may well have had the design of improving the reputation abroad of the Athenian mintage．Beloch（i．329）well insists upon the acute commercial instinct of Peisistratus in getting a footing on the coast of the Hellespont by seizing

\footnotetext{
\({ }^{60}\) The Attic \(\mu \epsilon \in \tau \alpha \lambda \lambda \alpha\) first appear in history in 484 в．c．（Hdt．vii． 144 ；Plut．Them．iv；Ar． Resp．Ath．22），when \(\tau \grave{\alpha} \mu \dot{\epsilon} \tau \alpha \lambda \lambda \alpha \tau \grave{\alpha}\) év Mapшveía zфd́vך．But this does not show that they had not previously influenced Attic history． They had certainly been worked ages earlier． ＇La disposition des gisements＇（at Maronea）， says Ardaillon（Les Mines de Laurium pp．132，133），＇est telle que les plus riches ne sont pas ceux qui pouvaient être atteints les premiers．＇A technical explanation of the veins follows．＇Il fallut donc des siècles de recherche et d＇efforts［Cf．Xen．de Vect．iv．2，

 l＇existence et en atteindre le niveau＇（i．e．of the rich vein＇discovered＇in 484）．Athens was tempted to work the somewhat poor upper veins in the sixth century by the great demand
}
for silver caused by the introduction of a silver coinage．The poorness of the veins which Peisistratus worked is confirmed by the fact that to root his tyranny firmly he had to start fresh workings in Thrace．For Thracian silver mines see Strabo Z 331 fr .34 kal aù ç \(\tau \delta\)
 \(\mu\) є́тa入入a（cf．Resp．Ath． 15 sup．）and Hdt．v． 17 near lake Prasias on the Strymon（cf．Hdt．i． 64 sup．）．

 Nic．Dam．fr． 58 （Bus．i．1． 646 Anm．2），

 Pont．fr．5．Wilisch Dic Altkorinthische Thonindustrie，p． 15.
\({ }^{62}\) Aristot．Oecon．ii． 4.

Sigeum. \({ }^{63}\) His unsuccessful rival Miltiades had already established a rvpavvis on the opposite coast. It is important for our purpose to emphasise the fact that the policies of the several tyrant dynasties were from first to last coherent in themselves and analogous to one another. Hippias not only kept his hold on Sigeum to the last and eventually retired thither, but actively developed his father's line of policy by forming a close personal connexion with the tyrant of Lampsacus, \({ }^{64}\) and effecting a reconciliation with the Philaids on the European side of the strait. \({ }^{85}\) That his reformation of the coinage was intended to further his foreign and colonial commercial policy is made the more probable by extant coins, some found in the Thracian Chersonese with the Hippias Athena type on one side and the Milesian lion on the other, \({ }^{66}\) others with the same Athena head, and on the reverse the type of Lampsacus. Lermann \({ }^{67}\) argues that the Thracian coins must have been struck when the Chersonese was independent of Athens, because when dependent it would not have been allowed to strike coins. But though this may be true, the use of the Athena type points to some close connexion with the mother city. The analogy of the coins of the Corinthian colonies makes this practically certain, and the Lampsacus coins are a parallel still more to the point. Lampsacus could only have used the Hippias Athena consciously as an ally of the Athenian tyrant. It is therefore to be inferred that Hippias' monetary reforms were not a mere isolated speculation, but part of the broad and widely extending commercial policy on which his power was based. In carrying out these schemes Hippias was but following in the path of his father, who had himself laid the foundations of them, and who probably owed his position to the fact that he was enabled, through his large mining interests, to take the lead in the commercial development which Solon had inaugurated with his financial reforms.

It is more than a coincidence that as the Peisistratids secured their \(\dot{a} \rho \chi \dot{\eta}\) by a mixture of commercial enterprise and political intrigue, so it was by a mixture of political intrigue and commercial enterprise that they were driven out, through the Alcmaeonidae undertaking the contract for rebuilding the temple at Delphi.

\section*{The Seventh Century Tyrannies.}

Lydia.-Gyges, the first ruler to be called tyrant, \({ }^{68}\) was famous for his wealth. \({ }^{69}\) He possessed gold mines, \({ }^{70}\) and was probably the first to coin in Lydia. Can the legend \({ }^{71}\) of the magic gold ring point to a tradition that Gyges possessed gold mines before his accession and owed his throne to

\footnotetext{

 votov. Cf. Periander and Corcyra.
\({ }^{64}\) Thuc. vi. 59.
\({ }^{65}\) Hdt. vi. 39.
\({ }^{66}\) Cardia and Limnae in the Thracian Chersonese were Milesian colonies (Str. xiv. 635, vii. 381, fr. 53).
}

\footnotetext{
\({ }^{67}\) Athenatypen, pp. 20-21.
\({ }^{68}\) F.H.G. iii. p. 72 fr .1 ; Et. Mag. đúparyos.
\({ }^{69}\) Archil. Bergh, 19 (2) ; Str. xiii. 626, xiv. 680.
\({ }^{70}\) Cf. Str. xiii. 1. 22 and 23 with Radet, La Lydic, pp. 172-3.
\({ }^{71} \mathrm{Pl}\). Rcp. ii. 359 D .
}
them? For the financial basis of the power of even the later Mermnadae cf. Nic. Dam. ed. Tauchn. p. 270 (based on Xanthus of Lydia, see Bus. i. 2. 451-2).

Miletus.-We only know that the tyranny was preceded by a struggle between two parties called Ploutis and Cheiromache, \({ }^{72}\) names which sound remarkably like capital and labour. The accession of Histiaeus, the later tyrant, seems to have synchronised with a revival of the commercial prosperity of Miletus. \({ }^{73}\) Histiaeus showed great eagerness to secure a commercial settlement in Thrace, which was regarded by his enemies as the proposed basis of a new political power. \({ }^{74}\) 命 \(\beta a \sigma \iota \lambda \epsilon \hat{v}\), коîóv \(\tau \iota \chi \rho \hat{\eta} \mu a\) є่ \(\pi \sigma i \eta \sigma a \varsigma, \dot{a} \nu \delta \rho i\) "E ö \(\mu \iota \lambda\) о́s тє \(\pi о \lambda \lambda o ̀ s ~ \pi \epsilon р ь o \iota к \epsilon ́ \epsilon \ell . ~\)

Ephesus.-Radet \({ }^{75}\) makes out a good case for believing that the Ephesian tyrants shared with the Mermnadae the monopoly of the great trade route that ran through Sardis to Ephesus. It is impossible positively to prove or disprove that the basis of the power of the Ephesian tyrants was commercial, but it appears to have been at any rate financial, cf. Suid. \(\Pi v \theta a \gamma o ́ \rho a s-\tau \omega\)



Argos.-It was surely Pheidon's invention of \(\mu\) ét \(\rho a\) for the Peloponnesians rather than his \(\ddot{v} \beta \rho \iota s\) or impiety that caused him to be regarded as a different kind of ruler from his forefathers, as a túpavyos instead of a \(\beta a \sigma \iota \lambda \epsilon\) ús.

Corinth.-Corinth had long been a great emporium, \({ }^{77}\) but a great commercial development took place about 700 b.c. in (1) pottery \({ }^{78}\) and (2) ship building and trade by sea. \({ }^{79}\) The activity of the Cypselids in this new marine commerce is beyond dispute. Wilisch \({ }^{80}\) attributes to the Cypselids the development of the Corinthian export trade in pottery. Cypselus was a metic \({ }^{81}\) and therefore probably originally a trader. \({ }^{82}\)

Megara.—Theagenes \({ }^{83}\) secured his power \(\tau \hat{\omega} \nu\) єủ \(\pi o ́ \rho \omega \nu\) \(\tau\) à \(\kappa \tau \eta \eta^{\prime} \nu \eta\)
 hensible if Theagenes' coup was a simple but effective way of securing the monopoly of the famous Megarean woollen industry. \({ }^{84}\)

\section*{Conclusion.}

The commercial origin of the tyrant's power seems fairly certain in the case of Samos and very probable in that of Athens. In the case of the

\footnotetext{
\({ }^{72}\) Plut. Q. Gr. 32.
\({ }^{73}\) Hdt. v. 28.
\({ }^{7}\) Ib. v. 23.
\({ }^{75}\) La Lydie, pp. 134 and 148.
\({ }^{76}\) Cf. Sol. 2 (13) 6 хрйцабь \(\pi \epsilon і \theta \delta ́ \mu \in \nu 0 t\); Theogn. 823 кє́ \(\rho \delta \epsilon \sigma เ \nu\) єॅкшע.
\({ }^{77}\) Thuc. i. 13 ; Str. viii. 378.
\({ }^{78}\) Wilisch, Dic Allkorinthische Thonin. dustrie, p. 151.

}
\({ }^{2} \pi!\mu \iota \sigma \gamma \delta \nu \tau \omega \nu\), and the account of Ameinocles' invention in the same chapter.
\({ }^{80}\) Op. cit. p. 151.
\({ }^{81}\) From Gonussa, Paus. v. 18. 7.
\({ }^{82}\) Can the story of the infant Cypselus being concealed in a kypsele mean that the future tyrant spent his earlier days in the obscurity of a pottery?
\({ }^{\text {c }}\) Ar. Pol. viii. 1305 A.
\({ }_{81}\) Xen. Mem. ii. 7. 6 ; Bus. G.G. i. 1. 471.
seventh century tyramies it is more conjectural, but the legends that have been preserved about the early careers of Gyges, Pheidon, Cypselus, and Theagenes give some support to the conjecture. Further, the careers of the seventh century tyrauts bear such a remarkable resemblance to those of Polycrates and Peisistratus, that it is reasonable to infer that the origin of the tyramies was the same in both centuries, especially as it has been shown that Athens and Samos became predominantly commercial somewhat later than Corinth, Megara, and the other cities where tyrants arose in the seventh century. Neither the accumulation of probabilities nor the argument from analogy is quite convincing in itself, but each gives additional weight to the other. If once the commercial origin of the tyrant's power is admitted, the various facts recorded about the tyrants certainly gain in meaning and coherence. The mercenaries, the monetary imnovations and reforms, the public works and labour legislation and the foreign alliances which are so repeatedly found associated with the early tyrants and which give the preserved accounts of them such a distinct stamp, become far more significant if the tyrant's power was based on his control of the labour and trade of his city. It is scarcely conceivable under any other theory, that there should not have been at least occasional cases of commercial retrogression or stagnation under the rupavi's. The fact that the commercial theory gives the most colierent explanation of the policy of the typical early tyrant is again no proof that the theory is true, but it is a further perfectly sound reason for accepting it on a less amount of direct evidence than would otherwise be required.

But perhaps the best test of the truth of any theory upon the origin of the early tyrannis is the evidence afforded by contemporary literature, especially the political poems of Solon and Theognis. Has the commercial theory the support of this contemporary evidence?

The political aim of Theognis was to prevent a recurrence of tyranny in Megara. What does the poet bid his townsmen beware of ? Not of eloquence, not of violence, not of rashly appointing a \(\nu 0 \mu \circ \theta\) ét \(\eta \varsigma\) or \(a i \sigma v \mu \nu \eta \eta_{\tau} \eta \varsigma\). All his warnings are directed against wealth. The whole town of Megara had become commercial. \({ }^{85}\) Birth had lost its prestige, \({ }^{86}\) and wealth acquired unprecedented power \({ }^{87}\)

It was the wealth of the would-be tyrant that Solon too feared. \({ }^{\text {s8 }}\)
Solon and Theognis wrote with the examples of Gyges, Pheidon, Orthagoras, Cypselus, and Theagenes before them. \({ }^{89}\) If they constantly feared that some \(\pi \lambda\) дóvoos форт \(\eta\) rós \({ }^{90}\) would make himself tyrant, it must surely have
\({ }^{85} 117,449,499,1105,1164\) g.h. (money) ; \(576,619,671\) f., 691, 856, 1202 (shipping), and note the large number of similes and metaphors in the oligarchic Theognis drawn from money and shipping.
\({ }^{86} 679,318,523-6,683\).
\({ }^{87} 621,679,699,1157\).
\({ }^{85} 4.8\) and 2.5 (Bergk) ; cf. Theog. 44 f., 823.
\({ }^{89}\) Is it possible to see in Solon 12, 29-32 a reference to the fates of the various tyrant families of the seventh century ?
\({ }^{90}\) Theog. 679.
been because the tyrants of the seventh century had sprung from the new class of \(\pi \lambda o v ́ \sigma \iota o \iota \phi о \rho \tau \eta \gamma o i\). If the poems of Solon and Theognis are carefully read through, they will, I think, be found throughout to dwell specially upon the danger of the \(\pi \lambda\) ov́cios making himself tyrant by means of his \(\pi \lambda\) оиิтоร.

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\section*{THE TOPOGRAPHY OF PELION AND MAGNESIA.}

This paper gives the results of a journey of exploration undertaken in April, 1905, in the Magnesian peninsula by Mr. A. W. Van Buren of the American School at Rome and myself. The observations are in many cases incomplete, but every effort has been made to make them as perfect as time and means allowed. I would like to point out to archaeologists who are too often content only with a tour to Larissa, Tempe, the Metéora, and Phersala, that Thessaly is in many respects a terve incognita. That it amply repays exploration and excavation is shewn by the results obtained by Dr. Tsountas and Dr. Stais at Dhimini, Sesklo, and Marmariani. It is to be hoped that in future archaeologists will visit Thessaly more frequently and not be content with mere sight-seeing. I myself hope to return this year to study the Ossa district ; and it is possible that the British School at Athens will, if circumstances permit, excavate the temple site at Kato Ceorgi.

In preparing this paper I have received much kind help from Dr. Wilhelm, Dr. Fredrich, Dr. Svoronos, Mr. G. F. Hill, and Mr. Wroth. To these and to Mr. Van Buren I wish to express my hearty thanks. I am also much indebted to two local gentlemen Єcóbwpos Z \(\eta \rho \gamma a ́ v o s{ }^{1}\) and Xapiえaos Гaıpé \(\phi \eta\) s of Argelaste who accompanied me for two days, to the Demarch of Neochori, and many others.

> § 1.-Introduction.

The principal modern authorities who have dealt with the topography and archaeology of the district are :-

Leake, Northern Greece, iv. pp. 368-399, 426-433 [Leake]. \({ }^{2}\)
Mézières, Mémoire sur le Pélion et l'Ossa (Archives des Missions Scientifiques, 1854, pp. 149 seqq.) [Mézières].

Bursian, Geographie von Gricchcnland, i. pp. 96 sqq. [Bursian].

\footnotetext{
\({ }^{1} \mathrm{He}\) published in the חav \(\theta \in \sigma \sigma a \lambda เ \kappa \delta\) of April 21st and 22nd (May 3rd and 4th), 1905, a brief account of part of our journey.
* In the square brackets are given the names by which the works will be cited below. Other works of less importance are, Kretschmann,
}

\footnotetext{
Rerum Magnesiarum Specimen; Tozer, Highlands of Turkey ii. ; Ussing, Griechische Reisen und Studicn. For an account of the Magnesian Confederation see Daremberg.Saglio, v. pp. 837 seqq.
}

Georgiades, Eefoa入ia (first edition 1880), second edition, 1894 [Georgiades].

The most important passages in classical authors dealing with the geography of Magnesia are to be found in Scylax and Pliny. Scylax \({ }^{3}\) says :-

 Пауабทтıкоиิ Mє入ißoıa, 'Pı̧ov̂s, Ev̉puдєvai', Múpaı.


Pliny tells us:- \({ }^{*}\)
Thessaliae adnexa Magnesia est, cuius gens Libethra, oppida Iolcus, Ormenium, Pyrrha, Methone, Olizon, promunturium Sepias oppida Castana,

Spalathra, promunturium Aeantium, oppida Meliboea, Rhizus, Erymnae, ostium Penii, oppida Homolium, Orthe, Iresiae, Pelinna, Thaumacie, Gyrton, Crannon, Acharne, Dotion, Melite, Phylace, Potniae.

Other important information is given us by Strabo, Ptolemy, and Pomponius Mela. The towns or places which previous writers have assigned to the Magnesian peninsula are Sepias, Aphetae, \({ }^{5}\) Olizon, Spalathra, Koракаi, Methone, Neleia, \({ }^{6}\) Demetrias, Iolcus, Orminion, Pagasae, Glaphyrae, \({ }^{7}\) Boebe, Myrae. Of all these sites not one is actually identified by epigraphical evidence. The position of Demetrias is certain, since Strabo tells us it was built between Pagasae and Neleia. The site of Pagasae is fixed because Strabo also says it was in his day the port of Pherae. Therefore Pagasae must be identified with the ruined city to the west of the harbour of Volo. On the east of this same harbour in a very strong natural position is another city site: this must be Demetrias. Thus we must assume Neleia to have been to the south of Demetrias. Iolcus we know from Strabo was only seven stades from Demetrias ; therefore it must be looked for quite close to that city. Scylax in enumerating the towns within the Gulf of Pagasae heads his list with Iolcus, and then mentions four or five more sites. Similarly in his list of those outside the gulf he begins with Meliboea, which we know from Livy \({ }^{5}\) to have lain at the foot of Ossa between it and Pelion. Therefore we may follow Georgiades in placing it in the neighbourhood of Thanátu, \({ }^{9}\) which identification has been confirmed by epigraphic evidence. \({ }^{10}\) Thus it is legitimate to assume that Scylax' list of towns begins with the most northern. In this paper then it is proposed to take the towns in the reverse order from south to north, and to identify them as far as possible with the ancient sites of the peninsula. A brief description of each site is given with additional notes on any features of interest in its neighbourhood.
\[
\text { § 2.-Sepices }{ }^{11} \text { and Aphetae. }{ }^{12}
\]

This town was situated on or near a promontory which bore the same name. Hitherto it has been universally assumed that Cape Sepias is the promontory at the heel of Magnesia opposite Skiathos. Our most important authority for its position is Herodotus. In describing the movements of the Persian fleet before Artemisium, he says three of the Persian scouts advanced to the sunken rock between Skiathos and Magnesia. This rock,

\footnotetext{
\({ }^{5}\) Herodotus, vii. 193.
\({ }^{6}\) Strabo, ix. 436.
7 Iliad, ii. 712 ; Stephanus, s.n.
\({ }^{8}\) xliv. 13.
\({ }^{9}\) P. 144.
\({ }^{10} \Delta \epsilon \boldsymbol{\lambda} \boldsymbol{T}\) iov, 1889, p. 92 ; Inser. at Thanitu

\({ }_{11}\) Herodotus, vii. 113, 188, 191; Stralso, vii. 330, ix. 443 ; Pausanias, viii. 27. 14; H.S.-VOL. XXVI.
}

Athenaeus, i. 30 D ; Pliny, loc. cit. ; ApolJonius Rhodius, i. 580 ; Ptolemy, iii. 13, § 16 ; Pomponius Mela, ii. 3. 580 ; Georgiades, p. 137 ; Pursian, p. 100 ; Mézières, p. 210.
\({ }^{12}\) Herodotus, vii. 193, viii. 8; Strabo, ix. 436 ; Apollonius Rhodius, i. 591 ; Stephanus, s.n. ; Leake, p. 243 ; Bursian, p. 101 ; Gcorsiades, \(\mathrm{I}^{1}\). 114.
then called Myrmex and now Eleutheri, lies just awash in the channel between the heel of Magnesia and Skiathos, rather nearer the mainland than the island. He then says the whole fleet made one day's voyage from Therma to the coast between Casthanaea and Cape Sepias. Casthanaea is identified with great probability with a site by Keramidi \({ }^{13}\) on the northern coast below Pelion. Later in describing the storm he says that some Persian ships were wrecked at Hipnoi at the foot of Pelion (a place identified by Georgiades with the cave-eaten cliffs by Venéto), others at Cape Sepias, others near Meliboea and Casthanaea. A glance at the map shews all these places near together except Sepias, if we identify it with the heel of Magnesia. Finally Herodotus, in describing the last movement of the fleet before Artemisium, says the Persians rounded the extreme point of Magnesia and sailed straight into the bay leading to Pagasae. There they anchored at a place called Aphetae, said to take its name from the abandonment of Heracles by the Argonauts. Georgiades identifies Aphetae with Aphesos, a little modern village right inside the Gulf of Pagasae. This view is clearly absurd. If the Persians could enter the Gulf of Pagasae they would have passed the Greeks at Artemisium and have outflanked Leonidas at Thermopylae. Besides it would make nonsense of Herodotus' statement that Aphetae and Artemisium were opposite one another. Leake places Aphetae at Trikeri at the mouth of the gulf, a very unsuitable place and open to the same strategic objections. Grundy, \({ }^{14}\) who seems to accept the orthodox view as to the position of Sepias, says that Aphetae must have been somewhere in the south of Magnesia at the entrance to the Gulf of Pagasae. Now in the south of the Magnesian peninsula there are only two harbours, one at Platanià not far round the corner of the peninsula, and another by the Palaeokastro identified as Olizon. The latter cannot be Aphetae, since at Aphetae there was no town. The one remaining site is Platanià, which is directly opposite Artemisium and is to-day marked as a harbour on the Admiralty chart. Further there is a place near Platanià still called 'A \(\phi \epsilon \tau \alpha \dot{\alpha} \tau \epsilon \varsigma\). Platanial bay is quite sheltered from the north-east, so that when the second gale arose the Persian fleet would be quite safe. Herodotus' words iقєîav émitcov és tòv
 mean the gulf that leads to the Gulf of Pagasae ; or may easily have regarded the channel north of Euboea and the Gulf of Pagasae as one. As regards Sepias it will easily be seen that it cannot have been at the heel of Magnesia opposite Skiathos. Otherwise it is hard to understand why the Persians did not put to sea and run round the corner, between Euboea and Magnesia, where they would have been safe from the Hellespontias, obviously a north-easter. \({ }^{15}\) Also Apollonius Rhodius, although his geography is not very accurate, would hardly say édvขє \(\delta \grave{\epsilon}\) ミ \(\eta \pi i a ̀ s\) äкр \(\eta\), фаiveтo \(\delta^{\prime}\) єiva入ín \(\sum \kappa i a \theta o s\), if Sepias was directly opposite Skiathos. Therefore Sepias must be near Casthanaea, and must be identified with the very prominent cape below Pelion, now called Pori.

\footnotetext{
\({ }^{13}\) Georgiades, 1). 142.
it Greut l'ersian W'(t); pl. 323 sequ.
}

\footnotetext{
15 The Greeks for instance ran from Artemisium towards Chalkis during the stom.
}

This is much more of a cape than the rounded corner at Kato Georgi opposite Skiathos. Another point in favour of placing Sepias at Pori is that north of Kato Georgi as far at least as Zagora there is no beach at all to accommodate a fleet. The coast is very rocky, and most inhospitable. The transference of Sepias from Kato Georgi to Pori leaves us without a name for the site at the former place.

It also necessitates some consideration of the topography of the eastern side of Ossa against the sea. As I am not qualified to speak of this district from personal experience, I will briefly summarize the possibilities in a table. The places mentioned are arranged from North to South.
\begin{tabular}{|c|c|c|}
\hline Hellenic Sitcs. & Gcorgiades' Identifications. \({ }^{16}\) & Scylax' Order. Possible Identificalions. \\
\hline Kokkino Reuma. & Eurymenae. \({ }^{17}\) & (Thaumakie.) \({ }^{18}\) \\
\hline Tarsana. & Rhizus. & Meliboea. \\
\hline Thanátu. & Meliboea. & Rhizus. \\
\hline Skiti. & Thaumakie. \({ }^{18}\) & Eurymenae. \({ }^{17}\) \\
\hline Keramidi. & Kasthanaea. \({ }^{19}\) & (Kasthanaea.) \({ }^{19}\) \\
\hline Venéto. & Hipnoi. \({ }^{19}\) & (Hipnoi. \({ }^{19}\) \\
\hline Pori. & Myrae. & (Sepias. \({ }^{19}\) \\
\hline Kato Georgi. & Sepias. \({ }^{18}\) & Myrae. \\
\hline
\end{tabular}

The towns given in brackets in the third column are those known of from other sources. Meliboea and Rhizus must have been important towns, since they both struck coins. \({ }^{20}\) The proposed identifications are only possible if Scylax' order be really from north to south. We can only know from the authors already quoted that Meliboea and Kasthanaea lay near where it is proposed to place them: definite epigraphical evidence only can settle the points finally.

Near the village of Pori there are, according to Georgiades, \({ }^{21}\) at a place called 'Ka入úßı тồ mavayıம́tov,' Byzantine mingled with Hellenic ruins. The spot is close to the cape, and is therefore from the reasons given above to be identified with Sepias, which we know from Strabo \({ }^{22}\) stood near the cape of the same name. For the site at Kato Georgi the name Myrae has been suggested. Inscriptions give us the name of two other Magnesian towns whose whereabouts is entirely unknown, Ale \({ }^{23}\) and Aiole. \({ }^{24}\) These might almost equally well be given to this site. Here there are some interesting remains. On the top of a steep, isolated hill, which has been half eaten away by the sea, there are plentiful remains of Byzantine buildings. Amongst the

\footnotetext{
\({ }^{16}\) I'p. 136 seqq.
\({ }^{17}\) Strabo, iv. 443 ('Epupval), Pliny, loc. cit. ; Apollonius Rhod. i. 597 ; Valerius Fl. ii. 14. Coins, Head, Historia, Num. p. 250.
is Iliad, ii. 716 ; Strabo, ix. 436 ; Stephanus, s.n.; Pliny, loc. cit.
\({ }^{15}\) Herodotus, loc. cit.
2 Head, op. cit. p. 256 ; Wroth, Num. Chron.
}

\footnotetext{
1900, p. 9, Pl. I. 7.
\({ }^{21}\) P. 138.
\({ }_{22}\) ix. 436.
\({ }^{23}\) Ath. Mitth. 1882, pp. 69 seqq. \(=\) Dittenberger, Syll. \({ }^{2} 790\); Ath. Mitth. 1890, pp. 283 seqq. No. 27.
\({ }_{24}\) Ath. Mith. 1882, pp. 69 seqq. \(=\) Ditten berger, Syll. \({ }^{2} 790\).
}
ruins grow some stunted wild olives: all incline towards the south-west and shew the prevalence of north-east winds in this region. I was told that 'walls without mortar' had fallen in the sea. Careful search down the side of the hill eaten away by the sea revealed below the Byzantine level the existence of walls built of small unworked stones and no mortar. Amongst these walls are fragments of ordinary black glazed ware. Towards the foot of the hill to the west are some big, roughly-worked blocks: these probably are the remains of the wall of the town. Below the hill to the north-west, close to the shore of a little cove where a small stream runs into the sea, is a chapel dedicated to the Virgin. It is principally built of squared blocks of poros. Round it in the ground are long oblong blocks of limestone. To the west of the church there are obvious remains of a Doric temple. Five longish column drums with twenty flutes lie on the ground. Sticking up from the ground are the ends of three more similar drums, two close together and one a little distance away from them. These seem to be the lowest drums of columns still in position on the stylobate. They are of poros, coated with stucco, and measure 55 m . in diameter. Apparently the temple was peripteral. I was told that the statue of a boy was once found here. If we may identify the whole of the mountainous extremity of the Magnesian peninsula as Mount Tisaeum, \({ }^{25}\) this temple might be that dedicated to Artemis mentioned by Valerius Flaccus. \({ }^{26}\)

Close to the shore of the cove of Kato Georgi, twenty minutes to south of the temple, some round and square tiles have been found in a kind of cellar under a modern house. Probably in antiquity as now there were a few fishermen's houses here. This small settlement serves as a ferry station for those wishing to go to Skiathos.

At Aphetae (Platanià) there are no ruins. I was given a coarse, black, glazed kylix that was recently found in a tomb a little above the harbour. This is now in the Volo Museum.
\[
\text { § 3.-Olizon. }{ }^{27}
\]

This is the most southern according to our interpretation of Scylax of the towns within the gulf. It is placed by all authorities at the Palaeókastro which stands on the narrow isthmus uniting the peninsula of Trikeri to the mainland. This is on a steep, isolated hill completely guarding the passage of the isthmus, and the two harbours to the north and the south. On the northwest of the hill are traces of the lower courses of a wall built of big blocks in irregular courses. Local information says that the wall went all round the hill, but was recently destroyed to form cultivation terraces. On the southwest are some Byzantinc ruins. Towards the same side is a deep natural fissure in the rock sail to communicate with the sea to the south; the

\footnotetext{
25 Polybius, x. \(42=\) Livy, xxviii. 5 .
\({ }^{26}\) ii. 7.
\({ }^{2} 7\) Iliad, ii. 717 ; Plutarch, Thumist. 8; Georgiades, p. 110.
}
natives say that in winter it smokes like a steamer. Near here I was shewn a statue base 41 m . and 25 m . wide, with dowel holes in its top; it bears this inscription:-

\author{
TONHPAKAH \\ MENANAPOC
}

Below the stone is broken; it probably ended with the one word AN€ \(\mathcal{H K} \in\). It is not earlier than the first century A.D. On a bluff to the south of the Palaeókastro and near the shore are two rock-cut graves. On a low hill to the south-east are remains of a small building of local marble. No plan can be made out; but it was perhaps a small prostyle temple. I was told there were some Corinthian capitals here some years ago.
\[
\text { § 4.-Tisacum, }{ }^{23} \text { and Aeantium. }
\]

I have above conjectured that perhaps the mountain at the end of the main peninsula above Platanià and Kato Georgi is Tisaeum. Our principal authorities for its position are Polybius and Livy. They state that Philip V. in the campaign of 207 B.C. against Sulpicius and Attalus I. established a signal station in connexion with others in Phocis, Euboea, and Peparethus, to signal to Demetrias the news of any movement of the enemy who had just been ravaging Peparethus and soon attacked Oreus. The two highest points in the south of the peninsula are a peak in the isthmus just west of Olizon, and another somewhat lower a little north of Platania. Both are equally favourably placed to signal to Phocis, Euboea, and Demetrias. The latter however better commands the open sea towards Peparethus. This peak then is perhaps Tisaeum. The Aeantium promunturium we must then identify with the peninsula of Trikeri and in its north-eastern angle place the "I \(\sigma a \iota\) \(\lambda_{\iota} \mu \eta^{\prime} \nu\) of Scylax.
\[
\S 5 .-S p a l a t h r a{ }^{30}
\]

The next site north of Olizon is a hill called Chortokastro, just at Chortos the skala of the prosperous village of Argelaste, which lies in an upland plain about an hour from the shore. The kastro is a steep, isolated hill standing close by the shore. Nothing is now visible, as the site is cultivated, except fragments of ordinary coarse pottery. The natives however say that here have been found a mosaic floor, tiles, marble slabs, statues, and other things. Tombs are found in the neighbourhood. The Demarch shewed me a bronze strainer-like ladle, and an iron knife from a tomb, and also two vases. One of these is of red-figure style and shews

\footnotetext{
\({ }^{25}\) Polybius, x. \(42=\) Livy, xxviii. 5 ; Apollonius Rhodius, i. 568 ; Valerius Flaccus, loc. cit. ; Leake, p. 397 ; Bursian, p. 100 ; Georgiades, p. 22.
\(=9\) Pliny, loc. cit. ; Ptolemy, iii. 13, § 16 ;
}

Leake, p. 397 ; Bursian, p. 101 ; Georgiades, p. \(2 \%\).
\({ }^{30}\) Stephanus, s.n. ; Pliny, loc. cit.; Leake, p. 384 ; Mézières, p. 169 ; Bursian, p. 101 ; Georgiades. p. 113.
a Satyr and a nymph; the other is of ordinary black-glazed ware, but both are of good style. At Chortos I was shewn this inscription :
```

\phiINOKPATH\Sigma
\odotPA\Sigma\OmegaNIDOY\odotA\SigmaIO\Sigma

```
on a plain gable-topped stele: the lettering is good and points to the third century b.c. The name Thrasonides is a genuine Thasian name. \({ }^{31}\)

At Argelaste I was shewn two inscriptions. Each side of the door of the



The stele seems to have been used twice; in the first two rows the lettering is good: in the others bad.

In the same church, stele with anthemion top.

\section*{EIMIAE}

It is broken below this name and shews traces of other letters.
In the Museum at Volo (No. 82) with several other \({ }^{32}\) inscriptionschiefly funereal-from this neighbourhood is the remarkable stele here illustrated (Fig. 1). It shews a relief field enclosed by two square pilasters supporting a plain architrave ornamented at its ends and in the centre with acroteria. Placed obliquely in the field from right to left and flying downwards is a winged thunderbolt. On the architrave is inscribed :

> EPГIA \(\triangle I O N Y \Sigma I O Y Y \Pi E P T O Y A \Delta E \Lambda\) ФOYEYAN \(\triangle P O Y O N T O \Sigma A I X M A \wedge \Omega T(O Y)\)
and below
\[
[E Y] \equiv A M E N O \Sigma
\]

Before \(\epsilon \dot{v} \xi \dot{a} \mu \epsilon \nu\) os we should supply the name of the god to whom this relief

\footnotetext{
\({ }^{31}\) Ath. Mitth. 1903, p. 438, 1. 22.
\({ }^{32}\) E.g. Nos. \(105,107=\) Mon. Ant. Linc, viii.
p. 64, Nos. 81. 84, 108 (Dedication to Heracles), and two unpublished inscriptions.
}
was dedicated, probably \(T \Omega I \Delta I\) or \(\triangle \| A K P A I \Omega I\), if we are to assume that the thunderbolt is the symbol of the god invoked on behalf of the prisoner.

Near Argelaste, but to the east of the village, two celts have been found which are now in the Volo Museum. \({ }^{33}\) They are made of oval-shaped stones, of which one end has been ground down to form a blade. They are about 10 m . long.

Georgiades places Spalathra on a hill called Mpaou, a little to the north of Chortos. On this hill there is a monastery of St. Nicholas and the ruins


Fis; 1.
of a Byzantine church in which are some squared blocks, and Georgiades says others have been found near by as well as tombs. But the hill of Mpaou though higher than that of Chortos is not of sufficient natural strength to be a city site, since it is united to the main range by a narrow neck. At all events if Spalathra was not at Chortos or at Mpaou, it must have been, to judge from the quantity of Hellenic remains, somewhere in this neighbourhood. Leake places at Chortos the hypothetical city of Magnesia, whose very existence is extremely doubtful. \({ }^{34}\)

\footnotetext{
\({ }^{33}\) No. 125.
\({ }^{34}\) Demosthenes, Olynth. i. 12, 15, ii. 20 ; Philip. ii. 71 ; Scholiast on Apollonius Rhodius, i. 580 ; Pausanias, vii. 7, 6; Demosthenes (c. Neaeram, 1382) speaks of Magnesia as a
}
district with Thessaly, lonia, etc. Pausanias obviously means Demetrias. Perhaps Demetrias as the capital of the autonomous Mag. netes had its name changed to Magnesia. Demosthenes clearly always considers Magnesia

\section*{§ 6.-Leiphokastro. \({ }^{35}\)}

About an hour and a half north of Chortos and an hour west of Argelaste is Leiphokastro. Here is a mill by the sea at the end of a small ravine, and on a low hill by the shore and on a narrow peninsula are many Byzantine ruins. There are remains of the following churches, Panagia, Hagia Euphemia, Hagios Panteleimon, Hagios Nikolaos, and Hagioi Apostoloi. Amongst these one can see a few Byzantine capitals of poor style and two columns of verde antico. There are no traces of walls nor of any Hellenic remains.

It seems however to have been an important Byzantine site. The natives informed us that there are traces of an ancient road running eastward from Leiphokastro, which lies on a narrow strip of flattish land between the hills and the sea, amongst the hills towards Neochori. This probably led to a place called Laï near Neochori, close to the eastern coast of the peninsula. Here there was a large settlement, also purely Byzantine. There are four churches all in ruins, Hagios Georgios, Hagios Ioannes, Hagios Elias, and Panagia. The latter, of which only the foundations are left, has recently been excavated ; why I do not know. The plan is somewhat interesting. \({ }^{36}\) The church, which is seventeen metres long, has a nave and two aisles. There is only one apse at the end of the nave. There is a narthex with three doors leading into the nave and aisles, and into the narthex itself there is only one door. At the east end of the southern aisle is a grave ; and at the west end of the northern one a cemented basin. In plan and size this church is much more pretentious than the others. All are badly built of brick, small stones, and mortar. About an hour to the east is a sinall harbour on the coast, and a little Kastro Hagios Demetrios. We seem to have here a settlement of the later imperial period with a harbour on each coast. The earliest coins from the site I saw were of Marcus Aurelius. Third-century coins seem common here, and also Byzantine coins, the latter unfortunately very illegible. The most distinguishable of them were the usual types attributed to John Zimisces, and some of Justinian. A little further north of Hagios Demetrios there is another Byzantine Palaeókastro: this however I did not visit.
\[
\text { § 7.-Коракаі. }{ }^{37}
\]

Georgiades places this town at Leiphokastro, which is not very probable, since as we have seen there are no Hellenic remains there. Mézières puts it
as a district. The scholiast on \(\Lambda\) pollonius has no anflority: he is only a commentator ; cf. Kretselhmam, op. cil. p. 15 ; Mézičres, p. 173 ; l'ursian, p. 102.
3.7 Mézieres, p. 177 ; Georgiades, ]. 112.
\({ }^{3 \prime}\) Fin the phan compare the basilica type
shewn liy the fourth church at Bin bir kiiisse, Strzygowski, Ǩleinnsien, 1. 58, Fig. 46.

37 Scylax, loc. cil.; Stephanus, s.u. Kopó \(\pi \eta\); Mézieres, p. 178 ; l’ussian, p. 101 ; Georgianles, p. 114.
at a place some distance north of Leiphokastro called Koракóтupyos or Палаьóтирүos. Here where a ruined square tower stands on a low isolated hill close to the sea, there are no Hellenic remains, save late graves. This hill is on the south side of a wide, fertile, well-watered valley. On the north of the valley at the foot of the hill is an isolated hill called Petrálona. Near here were found the two fragments of the famous Apollo Koropaios inscription. \({ }^{38}\) Probably in Scylax we should read Kopóт \(\eta\) instead of Kоракаi. At Petrálona there is nothing to be seen ; the hill is terraced, and though big stones lie all about there are no traces of walls. However, since it is hardly likely that the big slabs of the inseription could have been taken far, we must assume Kорóтŋ to have lain here.
\[
\text { §8. -Methone. }{ }^{39}
\]

This town was placed by Mézières at Lechonia. This as Bursian points out is unsuitable, since the Lechonia site is necessary for Neleia, which was also Leake's view. Georgiades follows Bursian's view. Close to Kalanera the sketa of Milies (M \(\eta \lambda \epsilon a i s\) ) some remains of antiquity have been found, in particular two busts which were stolen and sold in Smyrna in 1827. An inscription of the Magnesian confederacy was also found here. Lack of time prevented me from visiting the site, but I was assured by natives that nothing is to be seen there. Near Milies itself several inscriptions have been found, especially of the archaic Thessalian type.
\[
\text { §9.-Neleiu. }{ }^{40}
\]

This town, as shewn above, must have lain to the south of Demetrias. Close to the modern village Lechonia, which lies at the south end of the fertile plain of Agria, is a hill called \(\mathrm{N} \epsilon \beta \in \sigma \tau i \kappa \iota\). Round this hill on the south and west sides runs a Pelasgian wall. This wall is built of rough blocks of various sizes with no regard to courses or jointing (Fig. 2). Some of the blocks are very big: in places the wall is as much as two metres high ; it now serves as a terrace wall. On top of the hill ordinary black-glazed potsherds are visible. On a steep hill the east side of a ravine from \(\mathrm{N} \epsilon \beta \epsilon \sigma\) тiк九 is a ruined Byzantine castle. At Neleia we must place the seat of the worship of Aphrodite Neleia which we know of from an inscription. \({ }^{41}\) To judge by
\({ }^{38}\) Ath. Mith. 1882, 1. 69 seqq. \(=\) Ditten berger, Syll. \({ }^{2} 790\).
\({ }^{3 .}\) Hinil, ii. 716; Stephamus, s.r. ; Strabo, ix. 436 ; Mliny, lue cit.; Scylax, loc. cil.; Solinus, ed. Mommsen (1895), «8 8, § 7 ; Hézières, pp. 184, 187 ; Bursian, P, 102 ; Georgiades, p. 116.
t" Strabo, ix. 4:36; Leake, p. 879 ; Mézièes, 1. 1 s8; Busian, 1. 102 ; Georgiades, p. 118.

\footnotetext{
41 Ath. Milth. 1890, p. 303, No. 12 . P'erlatps we should read ìv \(\tau \hat{\varphi}\) i \(\epsilon \rho \bar{\varphi}\) т \(\bar{\eta} s\) 'A \(\phi \rho o\) \(\delta i \tau \eta s N \eta \lambda \in i a s\) in the Kieitor inscription (Ath Mith. 1881, 1. 304 b, 1. 25). I'robably the coin with the inseription 'Aфpoditn My入єia published by Imhoof-Blumer and attributed to Magnesiz ad Maeandrom should read 'Aфpoסitn Nýtia and belonge th the Magnetes (r. InhoolBhaner, Momn. (irecques, 1, 292, 91).
}
the character of its wall, Neleia was probably one of the older towns of the Magnetes.

> § 10.-Demetrias, and Tolcus.

Fredrich has recently published a full account of Demetrias \({ }^{42}\) with a plan of the site, to which I added a few notes. To this account I have as yet nothing further to add. Iolcus \({ }^{43}\) was already even in Strabo's time only a тóтоя, and the shore north of Demetrias was called Iolcus. Leake identified it with the hill of Episkope which stands close to the village called Vlachomachalà, or Allemerià, one of the many small villages at the foot of Pelion on the edge


Fu. 2.
of the plain of Volo (Fig. 3). This identification has been adopted by Mézières, Bursian, and Georgiades. There seems no reason for rejecting it, even though no remains of antiquity are now visible on the site. \({ }^{44}\) The hill is crowned by a church also called Episkope. In this church are many marble blocks, and a fragment of a large Ionic capital. Leake states however that large squared blocks of stone forming part of a wall once lay near the bottom of the hill. In the walls of the church are many interesting Byzantine reliefs. On the north and east walls are reliefs shewing peacocks

\footnotetext{
*2 Ath. Mitth. 1905, pp. 221-244, Pl. IX.
\({ }^{43}\) Iliad, ii. 712 ; Odysscy, xi. 256 ; Apollodorus, i. \(9, \S 11\); Pindar, Nem. iv. 88 ; Herodotus, v. 94 ; Livy, xliv. 12, 13 ; Pliny, loc. cit. ; Scylax, loc. cit. ; Strabo, ix. 436, 438 ; Leake, P. 379 ; Mézières, p. 160 ; Ussing, op. cit. p. 97 ; Bursian, p. 103 ; Georgiades, pp. 124, 125.
}

\footnotetext{
\({ }^{44}\) Its distance from Demetrias agrees with Strabo's estimate of seven stades. In recent rebuilding operations within the Kastro at Volo, the only hill on a level and marshy coast, much bronze age and Mycenaean pottery has been found. This site was probably the port of Iolcus and Episkope its citadel.
}
and the double eagle, and another of the Archangel Michael inscribed with his name. Over the north door is the inscription :-
```

    o \Delta\eta\mu\eta\tauриá\deltaos ка́\lambda\iota\sigmaтє ?
    ```


In the east end is another largish relief. On the right is a bearded figure in a long robe on an elaborate throne in profile to the left. In the centre is the Virgin en face wearing a nimbus: she is clad in a girt chiton with a himation round her shoulders. Christ is on the left crowned with a nimbus containing a cross and clad in a short chiton; he advances to the right.


Episkape
Vachumachalia
Fige 3. - View of N. W. side of Prem from Demetrias.
The Virgin holds his left wrist with her right hand. Over the figures of Christ and the Virgin is inscribed :-

> HMAKPIH \(\overline{M P} \overline{\overline{O Y}}\) \(\overline{I C} \overline{X C ~ T I C C A ~}\)
and between them :-
\[
\begin{aligned}
& \quad \Delta € H \\
& \text { CIC€ } \\
& \text { T€ ǑC } \\
& \wedge € O N \\
& \text { TIOVMO } \\
& \text { NAXOV }
\end{aligned}
\]

\footnotetext{
15 These letters conceal the dite, which is, if one may venture a guess, 7146 , that is 1638 A.D.
}
and over the bearded figure :-
\(K A I Q z € I \Lambda € \Pi ।\)
\(C K € \psi I C\)

Part of the sense of the inscription is quite clear, but the rest, even if copied correctly, is unintelligible. The prominent position assigned to the Virgin in this relief is noticcable. And in any case this relief and that of St. Michael


Fig. 4.
are remarkable owing to the great rarity of Byzantine figure sculptures of sacred subjects.

In a small wayside shrine by a spring close to the Church is a gabletopped marble slab. It is most wonderfully decorated with a finely carved pattern of scrolls and circles. I do not know what style of art it represents. It seems much too good for Byzantine, and is not Greek (Fig. 4).
\[
\text { \$11.-Ominion. }{ }^{16}
\]

Strabo, who says that this place was a к'́⿱ \(\mu \boldsymbol{\eta}\) under Pelion against the gulf, identifies it with the Homeric Ormenion, and thus says it must have been near Lake Boebeis. Georgiades points out the incorrectness of this identification. If Orminion were really Ormenion, why should the forces of


Fig. 5.
the latter in Homer be led by Eurypylus rather than by Eumelus or Philoctetes? Ormenion according to Homer was in Northern Thessaly, since it occurs between the districts of Tricca and Oloosson (Elassona). Strabo says Orminion was only twenty stades from Iolcus. Mézières tries to compromise

\footnotetext{
\({ }^{36}\) Strabo, i.. 436, 438, xi. 503, 530; cf. Bursian, p. 103; Gcorgiades, p. 127. lliced, ii. 734 ; Leake, p. 433 ; Mézières, p. 193 ;
}
with Strabo's account and places the site at Kaprena. This village is however much more than twenty stades from Iolcus. Kiepert recognizing the faultiness of this view places Orminion at Dhimini, a village about twenty stades to the west of Volo, and famous for its tholos tombs and bronze age and Mycenaean site.

Georgiades suggests that Orminion may have been at Portarià (Fig. 3), a large village on Pelion two hours above Iolcus (Episkope). Here some graves have been found, and some grave reliefs also. Three of the latter are now in the Volo Museum. Two of these, \({ }^{47}\) of which one shews a man rowing a boat to the left, and the other shews a woman wearing a long chiton, were once in the walls of Hagios Nikolaos, and are of late work, not earlier than the second century A.D. A third relief \({ }^{48}\) is earlier and of better style (Fig. 5). The relief field is bordered by two Corinthian pilasters supporting an architrave


Fig. 6.
carrying a pediment. In the pediment is a rosette, below which two birds support a garland. In the field there are a girl and a boy standing en face : she is clad in chiton and himation, and he has only a chlamys over his shoulders. Her left hand rests on his right shoulder : he holds a bird in his arms. At his feet is a dog, and by her right side is a birdcage. The girl is obviously older than the boy. It is a pleasing and naturally rendered subject. On the architrave is inscribed :-
ЕYПPA[三1]C////APi[TOBOY^OL

At the place called \(\dot{a} \lambda \hat{\omega} \nu \iota\) where graves have been found there is nothing to be seen.

In the church of the Mavaria is a late grave relief; and in Hagios Nikolaos is some Byzantine sculptured decoration. In the now deserted monastery of St. John the Baptist is a late relief of the 'funcral feast' type and many fragments of Byzantine reliefs. Most interesting is a Christian relief (Fig. 6) over a spring in the court. It is 1.00 m . long by 20 m . high. In the centre is a bearded figure with a nimbus, seated on a throne with hands upraised. On either side are bearded men standing and reading books at desks. Beyond them are three other bearded figures seated at a table eating (?) : one sits at the head and the other two sit at the side. In style the relief is not bad, and does not appear to be very late. I cannot find mention of any similar reliefs, nor have I ever seen anything like it in Greece. It seems to represent a scene of monastery life; one of the novices or junior monks reads a passage of Scripture to the others while at their evening meal. On the whole from a consideration of the extant remains, there is no decisive reason for placing Orminion at Portaria, but it is a possible site.
\[
\S 12 .- \text { Pagasae. }{ }^{49}
\]

There is fortunately no doubt about the site of Pagasae. It stood on the rocky promontory opposite to Demetrias, on the other side of Volo harbour.


Fig: 7. (From Mhotograph by Dr, Fredrich.)

Leake was the first to identify the site, and his view has been accepted by Mézières, Bursian, and Georgiades. The site divides itself into two parts, the lower town on the low hills near the seashore round the lighthouse, and the acropolis on a steep and rocky hill inland to the north-west whose easternmost precipitous face touches the north-western corner of the Volo harbour.

\footnotetext{
\({ }^{43}\) Pliny, iv. 8,15 ; Pomponius Mela, ii. 3, lonius Rhodius, i. 403 ; Hyginus, Astron. ii. § 6; Propertius, i. 20, 17 ; Demosthenes, Ol. 37 ; Leake, p. 369 ; Ussiug, op. cit. p. 103 ; i. 11, 13; Diodorus, xvi. 3. 1; Scylax, 64; Bursian, p. 69 ; Georgiades, p. 149 ; Dolwell, Strabo, ix. 436 ; Hesiod, Scut. Hcr. 70 ; Apol- Tour through Grecce, ii. p. 87.
}

All round the lighthouse promontory the circuit of the wall may be traced. Only the foundations are visible: they are built of square blocks laid in fairly regular courses. The south-western and north-eastern walls may be followed across the narrow valley through which passes the Volo-Almyro road. As one follows the south-western wall where it mounts the low hills to the west before reaching the steep hill already mentioned, there are portions of the wall in a fairly good state of preservation. In places it is well over a metre high. Its construction is fairly archaic : it is built of rough blocks without much care as regards jointing or regular courses (Fig. 7). It shews a kind of construction midway between true polygonal and regular ashlar masonry. Further where the wall crosses a narrow saddle between the low hills and the steep hill, the site of the west gate is clearly visible. The approach is narrow and enters obliquely between a projecting tower on the right and the wall on the left. This plan of gate-building is characteristic of Hellenistic fortifica-


Fig. 8. (From Photograph by Dr. Fredrich.)
tion, for example at Pergamum and Demetrias. But from before this gate and after it the character of the wall changes. It is built with regular courses of rather small well-squared blocks (Fig. 8). Towers are frequent and rather square in plan : they are on the average 7.25 metres deep and 9.30 metres long. The wall is about 2.85 m . thick. The acropolis is at the eastern end of this rocky hill, where it falls precipitously to the harbour of Volo. The acropolis is formed as at Demetrias by the splitting of the wall into two branches. These walls spread out, enclosing a large space on the highest part of the hill, and then rejoin. Here the use of unbaked brick for the superstructure of the walls and towers is clearly discernible. It also seems to have been used for some of the towers in the stretch of wall between the west gate and the acropolis. We can perhaps distinguish three periods in the wall : (1) Archaic period, wall below west gate ; (2) Fourth century, wall between west gate and acropolis ; (3) Late Hellenistic, acropolis and towers to wall between west gate
and acropolis. The use of unbaked brick here seems to denote a late period, as also at Demetrias. The towers clearly are not contemporaneous with those of Demetrias: at the latter city they usually measure \(610 \mathrm{~m} . \times 2.40 \mathrm{~m}\)., here on the contrary \(7 \cdot 25 \mathrm{~m} . \times 9.30 \mathrm{~m}\). Pagasae was one of the cities depopulated to create Demetrias, therefore this acropolis can hardly be early Hellenistic. It probably dates from the second or first century B C. when Pagasae became once more prosperous as the port of Pherae. A tower, at the eastem end of the acropolis where the walls reunite, is built of fine ashlar masonry (Fig. 9), and still stands to a height of over three metres. The wall is built in the usual manner elsewhere; only the facings are properly constructed with occasional bonding courses to tie them together. Between the facings there is a packing of earth and stones. Where the acropolis walls are close together, the wall is only \(1.80-2 \cdot 10 \mathrm{~m}\). thick and consists of the two facings bonded together, the inner one being less well


Fie. 9. (From lhotograph hes Dr. Feedrich.
built. The course of the wall down the precipitous end of this steep hill is not to be traced. But it is to be found again crossing the plain where the Volo-Almyro road passes, to the lighthouse promontory. Here are traces of a gate, inside which the ruined piers of a late Roman aqueduct are visible, and also the remains of some late building. At the foot of the rocky hill close to the shore, where the salt springs supposed to give the city its name bubble up, is a small flight of steps cut in the rock. They lead to a small terrace: here are many fragments of marble and pottery. It was possibly the site of a slarine. By the lighthouse there is a quay whose antiquity is doubtful. The site of the theatre mentioned by Leake is no longer distinguishable. According to Georgiades the inscribed stelae now walled up in the church of Hagios Nikolaos at Volo were found somewhere in the eastern part of Pagasae. It is to be hoped that the site of Pagasae will some time soou be properly planned and described.
§ 13.-Glaphyyrac.5)

About two hours north of Volo, amongst the hills separating the plain of Volo from lake Boebeis, is the village of Kaprena. On a peak, a little north of the village and falling steeply to the lake, is the enceinte of some ancient city, surrounding the church of Prophetes Elias. The hill is oval in shape and all round it runs a wall more or less well preserved. It is in places as much as 3.15 m . high, and \(1.20 \mathrm{~m} .-150 \mathrm{~m}\). thick. In style it may be called polygonal: the blocks are roughly worked according to their natural shapes and packed together. But as the local stone splits naturally into slabs, slabs are commoner than blocks in the wall (Fig. 10). Red potsherds are


F!... 11 .
common on the site, but black-glazed sherds rare. In a field on the west some graves have been found. At Kanalia I was shewn a terracotta from this site. It is a male head 08 m . high, hollow moulded. The hair is arranged in one row of tight, formal curls over the forehead. The nose and mouth are firm and strong; the face narrow and the eyes placed obliquely. It seemed good early tifth century work. There are also in the Demarcheion in the same village two inscriptions from Kaprena.
(1) Grave stele: plain pilasters and gable: \(\cdot 77 \mathrm{~m} . \times \frown 58 \mathrm{~m}\).

On architrave, good lettering :
\[
\Sigma A I \triangle P O \Sigma E(\vdots) i \Pi O Y \| P \Omega \Sigma=\Sigma\left(i n \delta \rho o s \sum i \mu o v\right. \text { ïpos }
\]

\footnotetext{
 1. 432 ; Mézictes, 1. 193 ; Bursian, 1. 103 ;
}

Below in fie!d, rough lettering:
\[
\begin{aligned}
& \text { } \begin{array}{l}
\text { YCIMAXAMAPK } \\
\text { HPWCXPHCTHXEPE } \\
\text { MAPK } \triangle C A I C X P \diamond N N \diamond C
\end{array} ~ . ~
\end{aligned}
\]

This stele was clearly used twice over.
(2) Pointed gable top, \(95 \mathrm{~m} . \times 24 \mathrm{~m}\). Letters \(\cdot 02 \mathrm{~m}\). high : good period.
```

EPM\OmegaNEY王A
MENOE\triangleIONY
\Sigma\OmegaTHN\triangleE
ANEOHKE
\triangleI\GammaAPMEN[I\Sigma]?
I[<]O\sumKAINI[K]
AN\trianglePO\Sigma

```

Leake identifies this site at Kaprena with Glaphyrae, a city whose inhabitants occur in the Homeric Catalogue with those of Boebe under the command of Eumelus. Mézières wished to call it Ormenion. Bursian and Georgiades both accept. Leake's identification, which is the most probable.
\[
\S 14 .- \text { Boebe }{ }^{51}
\]

From Kaprena a steep path leads down a difficult ravine, in which there are to be found traces of a rock-cut road, to the shores of the lake. A little over an hour from Kaprena and more than half-way to Kanalia (Boebe) stands the church of Hagios Nikolaos. This, as stated by Leake, is all that is left of the village of Karla which gave the lake its modern name. In this church are many architectural fragments. The altar is an Attic-Ionic columis base 68 m . square and 1.20 m . in circumference. The walls contain many squared blocks of poros and of marble. There are also two column drums with twenty flutes and 52 m . in diameter. In all probability a temple once stood on this spot. Near the village of Kanalia the centre of the modern deme of Boebe, there are three Palaiokastra. The northernmost is a very small hill surmounted by remains of some late fort built of small rough stones and mortar. 'The second a little further to the south is steeper and its crest is surrounded by a 'Pelasgian' wall of rough stones luosely packed together (Fig. 11). It is now not more than a metre high: it resembles a little the wall of Glaphyrae. At the foot of this hill to the north is a very good spring.

\footnotetext{
\({ }^{51}\) Iliad, ii. 712 ; Strabo, ix. 436 ; Herodotus, vii. 129 ; Euripides, Alc. 590 ; Pindar, Pyth. iii. 34 ; Lucan, vii. 176 ; Propertius, ii.
}

\footnotetext{
2. 11 ; Leake, p. 428 ; Mézières, p. 197 ; Bursian, p. 63 ; Georgiades, pp. 129 seqq.
}

Near this spring is the monastery of Hagios Athanasios where Leake says he saw large masses of stone. There are some squared blocks here now, and late column drums. Leake also saw quadrangular blocks of stone on the second Palaiokastro which apparently no longer exist, and at the back of it graves built of slabs. The third Palaiokastro is a low hill lying a little further south. This is covered with traces of mortar and tiles, and does not seem to have been an Hellenic site. At its foot to the west was the peculiar building described fully by Leake: this as stated by Georgiades has since been destroyed by treasure seekers. If Leake was right in stating that 'a small quantity of cement mixed with broken tiles has been employed in this


FH: 11.
masonry, ' it camiot have been Hellenic. In the vineyards below this third Palaiokastro, slab-built graves are often found. Over two of these the following inscriptions have been recently found :-
(1) Stele, stone, \(72 \mathrm{~m} . \times 41 \mathrm{~m}\). : reads downwards.

\section*{「ENNAIA}

Good fifth century lettering. The name occurs in an inscription in
 high.
(2) Stele: rough slab: broken at top : reads downwards: \(85 \mathrm{~m} . \times 30 \mathrm{~m}\).

Letters 07 m . high. Dr. Wilhelm suggests that this inscription should be restored as follows:-

\section*{[EVAAMOTOAE \(E A] M A K E K \Lambda E \Sigma\) \\ [ETAIHVIO \(E\) EV]ANTA \({ }^{62}\)}

From one of these graves I was shewn the bows of two bronze fibulae \(\cdot 05 \mathrm{~m}\). and \(\cdot 07 \mathrm{~m}\). long. They are of a rather unusual type, being made of a solid rod ornamented with circular bosses and sharp ridges. For their type compare the geometric fibula from Thebes figured by Ridgeway. \({ }^{53}\) We may thus perhaps say that this type of fibula was still being used in Thessaly in the sixth century.

Kanalia, which lies just at the foot of the northern Palaiokastro, between the hills and the lake, is quite a modern village dependent on the lake fishery which is strictly preserved and managed by a company. Carp is the principal fish.

A tedious climb of an hour to a place called \(\dot{o} \tau \epsilon \bar{i} \chi o s\) on the steep hills above the village, brought us to a cliff. Thus we found our informant was justified in stating that of \(\tau \epsilon \hat{\imath} \chi o s\) was so well built that it resembled living rock.

Alan J. B. Wace.

\section*{Appendix.}

\section*{The Imperial Coinage of the Magnetes.}

During my journey down the Magnesian peninsula I saw many coins. Amongst those I obtained myself are two imperial coins of the Maguetes of Severus Alexander and Gallienus. Amougst my notes I find mention of several others. The information as to the provenauce being certain, we are enabled to attribute to the Magnetes a series of bronze coins hitherto classed under Magnesia ad Maeandrum. The reverse types shew a centaur, the Argo, or a deity identifiable from the legend as Zeus Akraios who as we know was worshipped on the summit of Pelion. \({ }^{54}\) The catalogue of known types and varieties is as follows:
1. Augustus (?) : beardless head to r. ; dot border; ... CCEBACT.

Kev. centaur to r.
[Athens, Magnetes.] Fig. 12, 3.

\footnotetext{
52 The name Ebrinuos is of course arbitrary, Проклєiठas would suit as well: for the type of the inscription and the name compare Kaibel, \(182=1 . G\). ix. 1, 521 ; Solmsen, Rhein. Ilus. lix. p. 495 ; and also Ath. Mitth. 1896, p. 248 ; Kern, Inser. Thess. Antiquiss. Syll. p. 6;
}

\footnotetext{
Solmsen, Rhein. Mus. Iviii. p. 611 (hmós). For Eúávia cf. Eỉavtloas, Pausanias, x. 9. 10.
\({ }^{53}\) Early Age of Greece, p. 566, Fig. 119.
\({ }^{54}\) Dicaearchus apud F.H.G. ii. 262 ; Ath. Mith. 1882, p. 69 seqq. ; ibid. 1882, p. 335, 3 ; ibit. 1889, p. \(53=\) B.C.I. 1889 , p. 271.
}
2. Nero: head to r., lam:; dot border ; C€BAC|TOC.
lire. centanr to r., r. hand outstretched, l. holds branch our shonkler ; MAFNH, beneath M (?).
[Brit. Museum, Magnetes.5 \({ }^{5 \text { b }}\) ] Fig. 12, 4.
\(\therefore\) Marens Aurelins: head to r., laur.; \(A \vee T M A \vee P[A N T \Omega N \in I] N O C\).
live Aphrodite clad in chiton standing to r., r. hand holds sceptre, l. a pomegranate; behind her Erostor:; NWTHNIAMAIэАHNO ФA.


F1: 12.

Imhoof-Blumer reads MH^EIA: this I think should be NH^EIA. Aphrodite Neleia was a groddess of the Maguetes, and the reverse legend agrees in type with the other coins reading MATNHTWNAKPAIOC, etc. \({ }^{5 i}\)
[Berlin, Magnesia ad Macandrum.]
4. Septimius Severus: head to r., dot border ; C \(€ .\). HPOC.
licv. Zeus Akraios nude standing three-quanter profile to left,


r．hand holds sceptre，1．a thunderbolt；MATNHTWN AKPAIOC．
［Athens，Magnetes．］Fig．12， 5.
5．Geta：head to r．；ПOY＾O C€｜ПТ ГЄTAC．
Rec．same type and inscription as 4 ．
［Imhoof－Blumer，Magnesia ad Miteandrum．\({ }^{57}\) ］
6．Severus Alexander：head to r．，dot border ；．．．P AAE ミAN \(\triangle P O C\) ．
Rico．Argo with rowers to 1．；．．HTWN AP ．．．Fig．12， 6.
［Brit．Mus．Magnesia ad Maeandrum， 66 ；A．J．B．W．］
7．Severus Alexander：head to r．，dot border；．．A A E ミAN \(\triangle P O C\) ．
Row．stme type and inscription as 4.
［Seen at Argelaste by A．J．B．W．］
s．Maximinus：head to r．，laur．，「AIOYAIǑ MAZIMEINOC．
Rev．same type（apparently）as 6 ；MAГNHT \(\omega\) N AP「 \(\omega\) ．
［Mionnet，Suppl．vi．p．249，1095，Magnesia ad Maeandrum．］
9．Gordianus Pius：head to re，laur．；MA AN TOP \(\triangle I A N O C\) ．
Rev．same type and inscription as 8 ：in field B．
［Miomet，\({ }^{58}\) Suppl．vi．p．253，1122，Magnesia ad Maeandrum．］
10．Trebonianus Galius ：bust to r．，Jaur．；TPEB 「AヘヘOC．
\(R o\) ．same type and inscription as 8 ．
［Brit．Mus．Magnesia ad Maeandrum，103．］Fig．12， 7.
11．Gallienus：head to r．；．．．OYB 「A＾＾
Rev．Argo with rowers to r．；\([\mathrm{MA} \mathrm{\Gamma NH}] \mathrm{T} \omega \mathrm{N}\) A \([\mathrm{P} \Gamma \omega]\) ．
［A．J．B．W．；Mionnet，Suppl．vi．p．2566，1141，Magnesia ad Maeandrum．］Fig．12， 8.
Those of these coins that I have seen all correspond in style and fabric， and therefore with the new evidence as regards provenance their reattribu－ tion to the Magnetes seems certain．To the list of the autonomous coins of the Magnetes I would add the following ：

A．Bearded head to r．，dot border ；MATN｜HTWN．
Rev．Asclepius enthhroned to r．，r．hand holds sceptre，l．a snake． ［Athens，Magnetes；Brit．Mus．Magnetes；A．J．B．W．］ Fig．12， 2.
13．Similar head to r ．
\(R v\) ．Asclepius enthroned as on \(A\) ；MA「NH ．．．；star counter－ mark．
［Brit．Mus．Magnetes．］Fig．12， 1.

\footnotetext{
\({ }^{57}\) Imhoof－Blumer，Griechische Münzon，p． 120， 312 （Abhtthd．Lay．Akad．1888－1890， 1．644）．
médrille arait élé autrefois attribuée à la Mag－ nésic de Thessalic；clle est ici ì sa véritable place．
so Miomet remarks on this coin，celle
}

Of these two \(B\) is of better style than \(A\), but both are of bad style. They cannot be earlier than the first century before Christ. My notes also contain mention of the following two types as seen in the peninsula: they are probably of the same date.
C. Male figure in boat, illegible inscription.

Rev, centaur; MAГNHT \(\omega\) N
D. Apollo (?) head.

Rev. satyr with torch; MATNITTWN.

Since this was first written Dr. Imhoof-Blumer informs me that another specimen in the Lübbecke collection of No. 3 of the list above has been published. It is inseribed on the obverse AYKMAYKOMANTWNINOC, and on the reverse NWTHN7AMAIヨ^HNO9 \({ }^{\text {a }}{ }^{59}\) This shews that the coin is of Commodus and not Marcus Aurelius. Also it contirms my opinion that N \(\eta \lambda \in \iota a\) and not M \(\eta \lambda\) eia should be read, thus making it certain that the coin belongs to the Magnetes and not to Magnesia ad Maeandrum.
A. J. B. W.

\footnotetext{
\({ }^{59}\) Löbbecke, Z. f. N. xii. p. 319, Pl. XIII. 6 p. 119; I ant also informed that Mr. Talloot
 is quite clear); Imhoof-Blumer, Gricch. Münzon,
dition with a similar reverse inscription.
}

\section*{THE ATALANTA OF TEGEA.}

The scanty remains of the pediments of the temple of Athena Alea at Tegea were for many years the basis of all constructive criticism of the style of Scopas; their attribution to him has met with such universal acceptance that I need not here discuss it ; in view especially of their extraordinary vigour and originality it seems to me indisputable. The news that the excavation on the site of the temple was to be continued by M. Mendel, of the French School at Athens, was therefore received with the greatest interest, and his publication of his results fully justifies these anticipations. I wish to acknowledge the courtesy with which M. Holleaux, the Director of the French School at Athens, has allowed me to reproduce the illustrations from the Bulletin do Correspondance Hellentique; for the use I have made of them in the case of the Atalanta I must accept the responsibility. \({ }^{1}\) It is not, however, possible, from the publication alone, to appreciate all the evidence that has to be taken into account. I had an opportunity, in April 1904, of studying carefully the statues in the local museum at Tegea, in company with Mr. D. L. Richmond, of King's College, Cambridge. I think it will conduce to clearness if I say at once that a study of the originals enabled us to make two observations which offer new data for artistic criticism: firstly, that the torso identified by M. Mendel as the torso of Atalanta from the E. pediment is in Parian marble, not in the local Dolianà marble, like the rest of the pedimental figures; and secondly, that the head in Parian marble, which M. Mendel suggested might perhaps belong to a statue by Scopas placed within the temple, almost certainly belongs to this torso of Atalanta. I have not made public these observations at an earlier date, partly because I believe we were not the first to make them; they would, indeed, be likely to occur to any visitor to Tegea; but, so far as I know, they have not yet been published and discussed. The lapse of

\footnotetext{
\({ }^{1}\) In the recent edition of my Handbook of Greck Seulpturce, Fig. 140, I have joined the head and body together to seale, using the photographic plates in the Bulletin de Cory: Hell. xxv, iv and vi. But the original photograph was evidently taken with the torso sloping backward, and so the lower parts of
}

\footnotetext{
the figure appear too large in proportion to the upper pats. I have tried to remedy this defect in the accompanying illustration, prepared for me by Mr. Anderson, by sloping the lower part of the photograph reproduced away from the lens at a similar angle.
}
time has also given an opportunity for weighing more carefully evidence which seems at variance with much that we have before learnt about Scopas.

Before considering this question of the Atalanta in more detail a brief recapitulation of the rest of our cvidence as to Scopas at 'Tegea may seem desirable.


The Athanta of Tegea.
We are told by Pausanias that the temple of Athena Alea at Tegea was by far the finest in the Peloponnese. Within it had Ionic columns, and the external order was Doric; there were also Corinthian columns in the inner row at front and back. It was rebuilt after its destruction by fire in 395 B.C. Scopas was the architect; the front pediment contained the lhunt of the Calydonian boar. This pediment is described by Pausanias with sufficient
detail to give us some notion of its composition. In the centre was the boar, facing to the left, attacked by the three leading hunters, Atalanta, Meleager, and Thesens; on either side of this central group was a half-fallen figure supported by a comrade, the wounded Aucaeus, and 'Telamon, who had stumbled, supported by Peleus; beyond these were the Dioscuri, one on each side, and behind them three other heroes; we cannot tell how the angles of the pediment were filled. On the back pediment was the fight between Achilles and 'Telephus on the plain of the Caicus, but Pausanias unfortunately tells us mothing of its composition. Within the temple there were statues of Pentelic marble by Scopas, set up beside the statue of Athenat, on one side Asclepins, on the other IIygieia.

Fragments of sculpture belonging to the pediments of the temple have been krown for some time; the more important of them, which are now in the National Museum at Athens, are two heads of heroes, one bare and one helmeted-and the head of a boar. The recent excavations by M. Mendel have led to the discovery of more fragments from the pediments, some of them of a most interesting character. Two more heads, one of them bare, and one of them covered with a lion's scalp, some dogs' heads, and various fragments of limbs, are of the same material as the fragments previously dis-covered-marble from Doliana near 'Tegea, which, unfortunately, has little power of resisting exposure to weather and damp. Consequently all are in a poor state of preservation. The most important of the new discoveries is a female torso in Amazonian dress, which can hardly belong to any other figure than Atalanta, and a head which almost certainly belongs to this torso. \({ }^{2}\) Buth head and torso are of Parian marble, and one arm and a foot of the same material doubtless belong also to this figure. Though the Parian marble has resisted the decomposing force of the damp ground in which it was buried better than the Doliana marble, and so has preserved its form almost intact, the surface has been almost entirely corroded, so that the effect of the fimal polish of the surface is lost. In spite of this the head retains a wonderful amount of vigour and freshness of effect, and great individuality of character, and deserves to be ranked, cven apart from the circumstances of its discovery, among the finest fourth-century heads that we possess. The difference of material naturally gives rise to the question whether the I'atian marble figure belongs to one of the pediments of the temple, and, if so, whether it belongs to the same pediment as the other figures in inferior local marble.

The appropriateness of this Amazonian torso for the huntress Atalanta has alreuly been noticed ; and the absence of finish at the back goes to prove that it was a pedimental figure. M. Mendel, who conducted the excavations and published the sculptures that were found in them, had no doubt that it

\footnotetext{
* I state 1 his opinion alter a careful study of the origrinals in the Musemm at Fegea. The fractures do not exactly fit ; but the line of a cut-apparently a blow from some sharp instrt:-ment-appeas on the lower surdace and is
}
contimed on the upper. The head, when placed in its proper prosition on the torso, has it most hammonious ellect ; seale mud material alone sullice to make the comexion probable.
belonged to the same group as the other figures; and it is not difficult to find a reason for the use of Parian marble in the case of Atalanta. She was the only female figure in the two pediments, so far as we can judge from the description of Pausanias, and in order to render with due effect the colour and texture of her skin on face, arms, and legs, the sculptor may well have chosen to substitute, in the case of this one figure, Parian marble for Doliana, The other figures, being male, were very probably coloured all over. In fact the case is almost analogous to the marble insertions in the later metopes of Selinus, which are also used only in the case of female figures; the main difference is that in that case only the nude parts of female figures-face and arms and feet-are made of marble, the rest being of the same local material that sufficed for the male figures. The inferior material at Selinus is, indeed, not marble at all, but limestone; but we have an excellent example of the use of a superior and an inferior marble, under somewhat similar conditions, in the Demeter of Cnidus; there the local marble is considered good enough for the draped body of the statue ; but Parian marble is used for the head, and to it is due, in no small degree, the extraordinary beauty of the effect; and it is worth noticing, especially in this connexion, that the charioteer frieze of the Mausoleum-the part of the sculpture by general consent associated with Scopas-is in Parian marble, and owes something of its beauty to that material, while the rest of the sculpture and architecture is in inferior local marbles. There is, therefore, nothing impossible or even improbable in the use of Parian marble for the only female figure in a perdiment of which the rest was made of local marble; the scale and subject are suitable; the only question that remains is that of style, and this must now be considered.

It will be best to take the male heads first, partly becanse two of them have long been familiar, and are generally recognized as the typical examples of the work of Scopas, partly because their attribution to the pediments cannot be doubted. All of them alike are characterized by an intensity of expression such as is hardly to be found in any other heads that have survived from ancient times. The subjects of the two pediments, the hunt of the Calydonian boar and the battle of Achilles and Telephus, supplied the artist with themes which enabled him to represent all the heroes in the excitement of action and of danger; and he has used the opportunity to the full. Of the two heads that have been known for some time, one is that of a helmeted warrior with his gaze directed upwards-not that he is looking up at an antagonist on a higher level, but that his body was evidently leaning forward, and his head consequently bent back, as is shown by the strained muscles of the neck. The intensity of the expression is, however, enhanced by this position of the head; the eyes are set very deep in their sockets, and heavily overshadowed, at their inner corners, by the strong projection of the brow, which does not, however, as in some later examples of a similar intention on the part of the artist, meet the line of the nose at an acute angle, but arches away from it in a bold curve. At the outer corners the eyes are also heavily overshadowed, here by a projecting mass of flesh or muscle which overhangs and actually
hides in part the upper eyelid. The eyes are very wide-open-with a dilation which comes from fixing the eyes upon a distant object-and therefore suggest the far-away look associated with a passionate nature. A. similar impression is conveyed by the dilated nostril and the half-open mouth, the teeth clearly showing between the parted lips. The whole structure of the head is also suitable to the character pourtrayed; it is of a broad and massive type, and seems to imply that Scopas followed the traditions of Pelopomesian rather than of Attic art. This general description will apply almost equally well to the rest of the male heads from the Tegean pediments. It is true that the other head in Athens, the mbelmeted one, has not the same upward direction of the gaze, nor the same strain on the muscles of the neck, caused by the fact that the figure is bent forward; but it has in a still higher degree the earnest intensity of expression; and this expression is obtained by a similar treatment of the eyes and the surrounding muscles, and is associated with a similar physical type. The same may be said of the recently discovered head of Heracles now at T'egea. This head is characterised by a lion's scalp worn as a helmet, the face of the hero fitting into the open jaws of the beast; the teeth are seen above his forehead, and the mane, finely worked, on the back of his head. Though the face is badly damaged, it is still possible to appreciate, both in full face and in profile, the passionate expression of the deep-set cyes, and to notice the means by which that expression is again rendered. The other newly found male head, which is also in poor preservation, and is somewhat sketchily finished, is similar in character to the rest.

But the interest of the new discoveries centres in the head and torso in Parian marble, which, as we have seen, probably belong to each other, and are to be assigned to the Atalanta of the pediment. She is clad in a chiton which is fastened upon the left shoulder only, leaving the right breast bare. The folds of its drapery are indicated with a flow and vigour which at first sight suggest a comparison with the Attic work of the latter part of the fifth century, and the work under the same influence which we find at Epidaurus and elsewhere in the early part of the fourth century. But a closer examination reveals features which rather recall the characteristics of Hellenistic art, in the restlessness of detail, and the minute touches of realism ; this is especially noticeable in the folds just beneath the girdle, which are like those in the torso of Apollo Citharœedus from the Mausoleum, another work of the School of Scopas. Such an anticipation of the characteristics of a later age is fully in accord with the style of the male heads from the Tegean pediments; but, when we come to consider the head which, as we have scen reason to believe, almost certainly belongs to this figure of Atalanta, we are at once confronted with a remarkable difference. The expression is, indeed, no less full of life and vigour than in the male heads, and the execution excels theirs in freshness and delicacy. But we can find in the Atalauta nothing of that passionate intensity of gaze which distinguishes the male heads of Tegea beyond all others that have survived from ancient times. The eyes are not set in deep below the brow, nor
have they the wide-open, dilated pupils that we have noticed in the other heads by Scopas; instead of this they are rather long and narrow, and symmetrical in shape. Nor are they overhung at the outer sides by a havy mass of flesh. This, perhaps, in a youthful female head was hardly to be expected. But, instead of it, we notice a curious characteristic which is not dissimilar in character; this is a clearly marked, though dclicately rounded, roll of flesh between the brow and the upper eyelid. which is continued right round above the inner corner of the eye, to join the swelling at the side of the nose, which itself passes on into the clieek. I do not know any head in which this curious characteristic is so clearly indicated, but several of the heads usually regarded as either attributable to Scopas himself or shewing his influence shew it in some degree; \({ }^{3}\) and it can be traced back, in a rudimentary form, to the heals often associated with Cresilas. \({ }^{4}\) Though the lower part of the face has a longer, more Attic oval than the male heads, we can still see, in the distended nostril and half-open lips, a temperament akin to those of the warriors, though less violent and unrestrained ; the general form and character of the face reminds us of the Arlemis from the great Lycosura group by Damophon.

We need, then, feel no insuperable objection to attributing this figure of Atalanta also to Scopas; but the contrast in expression between Atalanta and the heroes who surround her in the hunt certainly calls for \(s\) me explanation. The contrast between the calm of Apollo and the excitement of the Lapiths who join in the combat on the Olympian pediment suggests itself as an analogy; but there is no reason to suppose that Atalanta was present only as a spectator; the action of her torso certainly belies it ; nor have we any grounds for doubting the identitication as given us by Piusamias, \({ }^{5}\) and supposing the figure to be a goddess-say Artemis. It seems more probable that the explanation may be found partly in the sex and the youthfulness of the maiden huntress; and even in the fouth century there may still have remained a half conscious tradition that Atalanta was no mere heroine but originally a goddess herself. She should not, then, show the stress and passion of combat that have left their trace on the faces of the heroes. For the contrast between calm and passion in the faces of those engaged in the same contest we may compare also the Lapiths and Centaurs of the Parthenon metopes; there it distinguishes the human from the bestial combatants; here, perhaps, the heroine goddess from her human companions. We must remember also that this extreme of expression was a new experiment, and that Scopas might not improbably have shrunk from applying it to female heads as well as to male heads at once, in this carly piece of his work. Later we see something of the same tendency in his female heads also, though never in so extreme a form. For an analugous contrast between the

\footnotetext{
\({ }^{3}\) E.y. The Aprollo from the Mansoleum, Brit. Mus. Catalonue, vol. 2, I'l. XX. 2. J.JI.ふ. xxiii. p. 122. We may also see it in the Demeter af C'utilus.
\({ }^{4}\) E.y. The Head of Pericles in the British
}
male and female types used by the same artist, we need go no further than to Praxiteles. There is harlly more contrast between the Heracles and the Atalanta of Tegea, than between the Hermes of Olympia and the Aphrodite of Cnidus.

Among female heads that have been associated with Scopas, and that therefore offer themselves here for comparison, is the well-known head from the S. of the Acropolis at Athens; \({ }^{6}\) though this has certain points of resemblance with the Atalanta, it also shows points of difference ; it is broader and more mature in type. But as its association with Scopas is purely upon grounds of style, it does not afford a very safe criterion for accepting or rejecting such association in a case where the external evidence is strong. It is otherwise with the copy of the maenad of Scopas published by Prof. Treu in the Melanges Perrot. \({ }^{7}\) Here the head is similar in character to the male heads from Tegea, and so far tells against an attribution to Scopas of the head of the Atalanta; but we may well imagine that he may later have applied to his treatment of a female head, in the eestasy of passion, the same devices which he had restricted to the male heads at 'Tegea, but had refrained from using for his maiden heroine. On the other hand, the drapery of the maenad in its realistic touches, especially in the folds beneath the girdle, reminds us strongly of the Tegean Atalanta.

If the conclusion here laid down be accepted, we shall have a new criterion to apply to the identification of works to be associated with Scopas or to be regarded as showing his influence. We have already noted the resemblance to the Atalanta of the head of Artemis from Lycosura, and the consequent confirmation of the fourth century date of Damophon. But it would lead us too far afield if we were to pursue this iuvestigation at present.

The more we study the character of the art of Scopas, the wider and deeper we find his influence to have been, and it can hardly be doubted that new data for comparison will lead to this inflacnce being traced into new channels and recognized in new developments.

Ernest Gardner.

\footnotetext{
\({ }^{6}\) E. A. Garduer, Ifandbook of Sentpture, \({ }^{7}\) Fiy. V. 1f. 317 sqq. Fig. 101.
}

\section*{THE PYRAMID OF MOERIS.}

In my paper on 'the 'Two Labyrinths' (J.MI.S. xxv. P. 320) I have throughout spoken of the Pyramid of Hawara, in front of which the Egyptian Labyrinth was erected, as the pyramid of Amenemhat III (Lamaris or Moeris) and have described it as his tomb. Now the southern brick pyramid of Dashur, excavated by MM. de Morgan and Legrain some years ago, also belonged to Amenemhat III, and is claimed by its excavators as the tomb of the king, the old identification, adopted by Lepsius and Petrie, of the Hawara pyramid as his tomb, being considered to be erroneous. As this fact was not mentioned in my former paper I add a short postscript on the subject.
M. de Morgan forgot that many Egyptian kings were provided with two tombs, one of which was a secondary sepulchre built in another part of the country from his real tomb either in order to delude would-be tomb-robbers or as a memorial in some specially sacred place, such as Abydos. Aha, perhaps the earliest King of Egypt, had two tombs, one at Abydos, the other at Nakîda. Tjeser Khetneter, of the IIIrd Dynasty, also had two tombs, one (the Step Pyramid) at Sakkara, the necropolis of Memphis, the other a great mastaba at Bêt Khallâf, not far north at Abydos. \({ }^{1}\) Seneferu the last king of the same dynasty, had two great stone pyramids; one at Mêdûm, the other at Dashur, both of which are still among the most important ancient monuments of Egypt. Usertsen (Senusret.) III (Lachares), the predecessor of Amenemhat III, had, like the latter, a pyramid in the Memphite necropolis (the Northern brick pyramid of Dashur), and also a rock-cut bab or gallery-tomb in the southern cliffs of Abydos, excavated by Mesrs Weigall and Currelly. Aahmes I had a curious and roughly-excavated secondary tomb at Abydos, and withont doubt a gallery-tomb in the Drac Abu 'l-Negga at Thebes. Queen Teta-shera, the grandmother of Aahmes, had her real tomb in the Dra Abu 'l-Negga, and a mock-tomb (a pyramid) built as a memorial to her by Aahmes at Abydos. All the Abydene tombs were probably mere memorials 'in the sacred land' of Osiris and the reason why no trace of the burials of Aihmes or Usertsen III have been found in the tombs at Abydos is, perhaps, because they were never buried there, their real tombs being in the Drac Abu 'l-Negga (whence the body of Aahmes was removed to the Deir el-Bahari pit and

\footnotetext{
\({ }^{1}\) Fouilles à Dahshour, \(1894-5\) (Viemna, 1903), p. 106.
}
thence to Bulak Museum in 1881) and at Dashur. \({ }^{2}\) In the same way Amenemhat III had two tombs, the pyramid of Hawara and the southern brick pyramid of Dashur. If his predecessor's real tomb was the northern brick pyramid, it might be supposed that the Dashur tomb is the real burialplace of King Moeris, the Hawara pyramid being a monument put up in the sacred Lake-land of the Fayyum which owed so much to the king and to whose crocodile-god he was so devoted, just as other kings had secondary tombs in the holy land of Osiris at Abydos. This may be, though there seems to be no particular reason why the reverse should not be the correct explanation. We simply do not know. In any case M. de Morgan was right in saying that the southern brick pyramid of Dashur belonged to Amenemhat III but was wrong in saying that the Hawara pyramid did not. Both it and the Labyrinth adjoining were built by him. Whether king Moeris was actually buried at Hawara or at Dashur, later generations regarded the pyramid adjoining the Labyrinth as his actual tomb, and as such I treated it in my paper on 'the Two Labyrinths.'

\author{
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}

\begin{abstract}
\({ }^{2}\) It might be objected that the great sarcophagus in the Usertsen tomb would hardly have been dragged down to such a depth had it not been originally intended that the royal body should rest in it, and that a mere memorial tounb at Abydos would hardly have been earried out with full realistic detail, everything being there except the body itself. I do not know, however, that this is impossible, given the idea of making a secondary tomb at all. The two pyramids of Amenemhat III at Dashur and Hawara are equally elaborately built, though one of them was not the actual restingplace of the king. It has occurrel to me that perhaps the royal tombs of the First and Sccond
\end{abstract}

Dynasties at Umm el-Ga'il) in the necropolis of Abydos may not be in reality the actual tombs of the early kings at all, but simply secondary tombs built as memorials in the holy land of Osiris, the actual sepulchres being elsewhere; Aha certainly had two tombs, one at Umm elGa'al, the other at Nakâda, and it may be that the latter was his real tomb. Now these early secondary (?) tombs were furnished as completely as if the kings had actually been buried in them. The mock or imitation tombs, as the pyramid of Teta-shera, were more or less carelessly made of rubble, like the mock pyramid of Mentuhetep at Deir el-Bahari. They are not seconlary tombs, properly speaking.

\section*{INSCRIPTIONS FROM ASTYPALAEA.}
1. Found in the ground of Michael Palatianos at Martezana; now in a lime-store at Peragialós (the local name for the port or Skala) : on the left side of a piece of marble which served as the lintel of a tomb, carved with a simple cornice. \(1.27 \times 0.31 \times 0.17\) : letters 0.015 regular and carefully cut, equal in size except that \(\Delta\) and \(\phi\) project beyond the lines.

Beneath the lintel, placed so as to be read under the doorway by those issuing out, i.e. in the reverse of the epitaph, in large letters 0.025 .

\section*{KAEYMATPAE}






К \(\lambda є \nu \mu a ́ \tau \rho a \varsigma\).
2. Abuve a window in the church of Meqád \(\Pi\) חavaria (near the inscr. given in I.G.I. iii. 211). Large letters, upside down.

\section*{\(k A!T \Omega \Delta A M \Omega I\)}

In the inscription I.G.I. iii. 168, the reading in line 6 should beTEIMAミMA \(\tau \epsilon i \mu a \sigma \mu a\) not \(\tau \in ́ \lambda \epsilon \sigma \mu a\).

\author{
W. H. D. Rouse.
}

\section*{THE ROCK-CUT STATUE NEAR MANISSA.}

With reference to the controversy as to whether the rock-cut figure known as the Buyuk Tash (or Surat Tash) on Mount Sipylus is to be identified with the statue of the Mother of the Gods, or the weeping stone Niobe which are mentioned by Pausanias, I think the following might be worth recording.

Mons. M. G. Weber in his Le Sipylus et Les Monuments (1890, p. 117) has remarked that the statement of Pausanias (viii. 2.), that it was asserted that the Niobe wept in Summer, furnishes an argument against the identification of the Niobe with the Tash Souret, since in summer there is no water on that part of the mountain, and even in winter the figure 'ne reçoit que les eaux immédiates de la pluie. Il faut décidément chercher Niobe dans l'intérieur du massif qui cache certainement encore plus d'un monument préhistorique.'

This conclusion was adopted and enlarged upon by Messrs. Perrot and Chipiez in their History of Art in Sardinia, Judaca, Syria, and Asia Minor (English translation, ii. 236), and other writers.

When I visited Manissa last January (1905) and climbed up to the figure over the frost-bound track, I found that two icicles, each perhaps three feet long, hung from the brow and chin, giving to the figure a realistic appearance of 'being immersed in grief and dissolved in tears.' As few travellers visit this place in winter, I doubt if this remarkable effect has been noted.
H. S. Cowper.

\section*{NOTICES OF BOOKS.}

Bacchylides : the Poems and Fragments. Edited with introduction, notes, and prose frans'ation, ly Sir Richard C. Jebb. Pp. xviii +524 . Three plates. Cambridge: University Press, 1905. 15s, net.
Sir Richard Jebli's edition of Bacchylides, published only a few weeks hefore his unexpected and lamented death, though not so great a monument of interpretative scholarship as his Sophocles, is yet a characteristic example of his fine and thorough workmanship. The present notice can only describe its contents, without attempting to criticise. The Introduction, of 146 patges, deals with (i) the life of Bacchylides, (ii) his place in the history of Greek lyric poetry; (iii) his characteristics as a poet, (iv) his dialect and grammar, (v) his metres, and (vi) the papyrus. A seventh chapter gives an exact transcript of the papyrus in uncial characters. This is followed loy introductions to the odes. Then comes the text of the poems, with full critical and explanatory motes, and a prose translation en fuce, the whole occupying 166 pages. The fragments of Bacchylides not contained in the papyrus are placed next, and the volume concludes with appendices dealing with certain passages which require longer treatment than could be given in the notes, and with a vocabulary and index. Three antotype plates contain specimens of the writing of the papyrus, and some selected portions of it in which special doubt attaches to the reading. The commentary notices very fully the work of other scholars, and the alternative readings and interpretations which have at any time been put forward, so that the student has all the materials for forming his own judgement, in addition to the advantage of Jebli's guidance. It is satisfactory to know that the volume was in all respects finished before Sir R. Jebb started on the journey to South Africa which ended so fatally.

Bucolici Graeci : recensuit et emendavit Udalricus de Wilamowttz-Moellendorff [J̈criptorum Classicorum Bibliotheca Oxoniensis]. Pp. xv +170 . Oxford: University Press, 1906. 3s.
Die Textgeschichte der Griechischen Bukoliker. By the same.
The edition of the poems which pass under the names of Theocritus, Bion, and Moschus, contributed by Prof. U. von Wilamowitz-Moellendorff to the Oxford series of classical texts, involves more novelty of treatment, and is a more important contribution to the criticism of the authors concerned, than is usiually possible in such editions. The common order of the poems is abandoned (though the old numbers are retained in brackets) ; following the example of Alurens, Wilamowit\% prints first the poems which he regarls as genuine, substantially in the order in which they stand in the best MS. \(\mathrm{K}(1,7,3-6,8-14,2,15\), \(17,16,18\), with the addition of \(24,22,28-30\), and 24 epigrams, which are not in K ), while an appendix contains the Epitcophium Bionis, the two poems (Theocr. 25 and Mosch. 4) contained in MSS. of both the families in which these Addendluare preserved, two (Theocr. 26 and 27) found in MSS. of the \(\Pi\) family, eight (Theocr. 20, 21, Mosch. 2 Theocr. 19,

Bion 1, the In Adonin Morturm, Theocr. 23, Bion 2) found in MSS. of the \(\Phi\) family, and the Europe of Moschus, which is found separately. To these are added the fragments of Bion and Moschus, the Technopaegnia, and Latin argmonts to all the poems. The arguments for this arrangement, and the textual history of the poems, are set forth in the German treatise which has appeared as a companion to the Oxford volume ; a brief summary of them is given in the preface to the latter. The textual apparatus is on the scale usual in this series; more extended discussions of some of the readings will be found in the dissertation.

Griechische Papyri medizinischen und naturwissenschaftlichen Inhalts. Bearbeitet von K. Kalbfleiscif und H. Schöne. (Berliner Klassikertexte, Heft III.) Pp. 40. 9 Plates. Berlin : Weidmann, 1905.
The third part of the Berlin series of classical texts from Greek papyri includes a number of medical and literary fragments, as follows: (1) fragments of the psendo-Hippocratic epistles, from two papyri, containing portions of Ep. 3, 4 (shorter form), 5 (both forms), and 11; (2) several fragments of a physiological treatise, dealing with the nerves, by an unknown writer of later date than Herophilus; (3) small fragment on the treatment of constipation ; (4) medical treatise, including an extract from Archibius on the subject of medical education ; (5) fragment, perhaps on natural history, including a reference to a commentary of Apollonius Rhodius on Antimachus; (6) small fragment on medicine, apparently of the empirical school ; (7) instructions for the preparation of lard; (8) and (9) medical receipts. An index of words is appended, and photographs of the original MSS.

Mélangeś Nicole : Recueil de mémoires de philologie classique et d'archéologie, offerts à Jules Nicole, Professeur à l'Université de Genève, à l'occasion du xxxe anniversaire de son professorat. Pp. 671. Portrait and 20 plates. Genève: W. Kündig et fils, 190.5. Price 30 f.

The handsome volume published in honour of Prof. Jules Nicole contains contributions from no less than sisty scholars of all countries, including Blass, Cavvadias, Dörpfeld, Duchesne, Furtwängler, Herwerden, Mahaffy, Maspero, S. Reinach, Robert, Tyrrell, Vitelli, and Weil. As is natural in a volume offered to an eminent editor of Greek papyri, many of the articles publish or comment on papyrus texts : such are the contributions of Comparetti, Crusius and Gerhard, Goodspeed, Gradenwitz, Schubart and Vitelli, Greufell and Hunt, Jouguet and Lefebrre, Mahatfy, Mitteis, T. Reinach, Wessely, and Wilcken. Prof. Naville describes (with a photograph) the XIth Dynasty temple discovered by himself and Mr. Hall at Deir-el-Bahari, unfortunately too soon to be able to mention the remarkable Hathor-shrine, with the intact statue of the cow-guddess, which has been the sensation of this season's work. Archaeological articles are contributed by Cagnat, Cavvadias, Dörpfeld (on cremation and burial in ancient Greece), Furtwängler (a Messapian vase), Löwy, Milliet, Georges Nicole, Pottier (the Naples bronze of Alexander on horseback), S. Reinach (a Ganymede of the school of Praxiteles), Tsountas, and Zenghelis. Prof. van Herwerden makes some additions to his Lexicon Gruecum suppletorium. The remaining articles are mostly of a literary character. Two graceful Greek poems, by Tyrrell and Mahaffy, are prefixed. The contents of such a volume are too varied and extensive to admit of review, but it is evident that there is material for classical students of all kinds, and that some of the first scholars and archaeologists of Europe have joined to do honour to their Swiss colleague.

\section*{A Chapter in the History of Annotation, being Scholia Aristophanica, Vol. III. By W. G. Rutherford, formerly Head-Master of Westminster. Pp. xi +494 . London: Macmillan \& Co. 25s, net.}

The third volume of Dr. Rutherford's edition of the Scholia in the Codex Ravennas of Aristophanes has an independent title and an independent right to existence as a contribution to the history of scholarship. In substance it is a classification of the scholia under several heads, according as they relate to textual criticism or interpretation, and according as the interpretation deals with the manner in which the verses should be spoken, or the explanation of their form or meaning. Under this last category come the scholia which interpret the poet's phrases as examples of the various tropes or figures (such as \(\mu\) єтaфори́, \(\pi \epsilon \rho^{\prime} \phi \rho a \sigma t s\), dं \(\pi о \sigma t \omega \pi \eta \sigma t s\), and the like), those which explain unfamiliar words or matters of fact, and those which pass critical judgement on the poems. Unfortunately these two last sections form the least part of the scholiasts' industry, and in many cases give nothing more than can be readily extracted from the text itself. Dr. liutherford ends with the meanest possible opinion of the scholia and the scholiasts, but his book is enlivened and enriched by a series of forcible pictures of the conditions under which they came into being. He does not attempt to assign known authors to the scholia, regarding them rather as mere schoolmasters' annotations, but he tries to depict the circumstances under which they arose, and he seatters hints which have an obvious bearing upon the educational questions of our own time.

Handbook of Homeric Study. By Henry Browne, S.J., M.A., New College, Oxford; Professor of Greek at University ('ollege, Dublin. Pp. xvi + 333. 22 Plates. London: Longmans. 6s. net.
This is a handbook to the Homeric poems, intended for somewhat advanced students of the subject. As compared with Sir R. Jebl's well-known Introduction, it deals sumewhat less fully with the literary side of the subject, but much more fully with the archaeological side, on which so much light has been thrown by recent discoveries. With regard to the composition of the lliad, Prof. Browne follows Gedles' views in the main; on the ethnological question, he is not disposed to accept Prof. Ridgeway's theories to their full extent. The value of the book, however, consists less in the actual conclusions at which the author somewhat tentatively arrives than in his fair and careful statements of the views held by the leading scholars on the chief points of controversy. M. Victor Bérard's elucidations of the Odyssey, Mr. Arthur Evans' discoveries at Knossos, the British School's excavations at Phylakopi, Prof. Ridgeway's Celto-Achaean theory-in short, all the most recent contributions to the literary and archaeological study of the poems are dispassionately stated and considered; and, in addition, Prof. Browne has the advantage of using unpublished materials of Mr. Myres, whose command of the whole field of Homeric and Mycenacan archaeology it would be hard to rival.

An Introduction to Greek Epigraphy. Part II. The Inscriptions of Attical. Edited by E. S. Roberts and E. A. Gardner. Cambridge: University Press, 1905. Pp. xxiv +601 .
This volume, which carries out for Attic inscriptions the plan proposed in its predecessor, is, it would appear from the preface, not to be followed by others covering the inscriptions of other parts of Grecce. This is to be regretted, because the non-Attic side of history and archaeology always runs a risk of being neglected. Possibly, however, as the editors hope, others may be induced to carry on the plan of the book ; meanwhile we must be content with what we have. In methol, the work is more or less intermediate between those of Dittenberger and Hicks. The object of Dittenberger's invaluable work seems to be to
produce not an epigraphist proper-i.e. one who works from the stome-but a bookepigraphist, a scholar who having the extant letters before him can make the most of them from the historical and philological point of view. The object of Hicks is not to produce an epigraphist at all, but merely to supply epigraphic illustrations of Greek history. Messrs. Roberts and Gardner, while they deal within certain limits with all sorts of inscriptions, do not aim at giving a definitive publication of each inscription, but merely take it as typical of a class and attempt to make it the foundation of a study of the others. In a text-look, given a certain modicum of somd matter, arrangement is everything. The matter here is of course good and plentiful (we have 410 inscriptions divided into thirteen classes). There is, however, some lack of clearness in the arrangement: the way in which the 'Remarks' are scattered about the various sections, instead of being collected at the beginning of each, is disturbing. As regards the method of printing the inscriptions, a good feature is the disposing of the lines according to the original; but a somewhat unnecessary complication is introduced by printing restorations in Clarendon type as well as brackets. A special form should have been adopted for the rough breathing ; the plan followed here to indicate the existence of the sign of the breathing on the original does not work for words which are printed with a capital initial, such as 'Aìxapvasor̂s. And we can see no reason why \(\phi \sigma\) and \(\chi \sigma\) should not be preserved in the transliteration when the double letters are so written on the stone. When a book has been twice the Horatian period of years in preparation-for we presume that it was taken in hand after the publication of Vol. I. and delayed for various reasons-it is inevitable that faults of detail should creep in : we note, for instance, that the debt of the people of Syros (No. \(122^{113}\) ) is given as 4800 drachms, whereas other editors all give 4900 (they may be wrong, but the point should have been noted) ; that in No. 359 the words 'Ev Aiyúnte Te入évicos pávris are statecl to be part of the later addition to the stone, which does not seem to be the case; that in No. \(97^{23}\) the weight of the 'gold tetradrachm' is wrongly said to be too high in proportion for a gold cast of a silver tetralrachm, whereas it is as nearly as possible right; that
 course minutiae, but they are the kind of points in which the epigraphist of the new school prides himself on being correct. One or two inscriptions are omitted which we should have liked to see included : such are the commercial treaty with Phaselis (Dittenberger \({ }^{2} 72\) ); the fragment of the confiscation list relating to Alcibiades (which is mentioned in the notes); and the inscription relating to the return of the democrats from Phyle; the last is also interesting because it contains the names of professions, which, as the editors note on No. 222, are too rare in Attic epigraphy. It is easy, however, to find fault with a book which deals with a subject of this kind ; it would be ungrateful to disyuise the fact that as a summary of the portion of the Corpus relating to Attic inscriptions it will be invaluable to teachers and students of all desrees.

A Handbook of Greek Sculpture. By E. A. Gardner. Revised Edition. Pp. xxxii +590. London: Macmillan \& Co., 1905. 10s.

In the revised edition of Mr. E. A. Gardner's well-known handbook, the former first and second parts have been combined into a single volume. The changes in the text are restricted to the insertion or molification of occasional sentences, a discussion of the most important discoveries of the last ten years being reserved for an appendix of 35 pages. This can also be purchased separately, by those who possess the former elition, which, it should be noted, is greatly to be preferred as far as regards the illustrations.

Studies in Ancient Furniture. By Caroline L. Ransom. \(12 \mathrm{in} . \times 9 \mathrm{in}\). Pp. \(128+\) 30 plates. Chicago: The University Press, 1905. \&4. 50 n .

The sub-title of this work-Couches and Beds of the Greeks, Etruscans, and Romans-accurately describes its scope and contents. Miss Ransom hats made an exhaustive study of her sulject, giving a chronological 'Survey of Forms,' a discussion on 'Styles,' and a description of the materials used in making and furnishing the beds; she has also added a glossary of technical terms and very complete bibliography and indices. The volume is copiously illustrated and should be useful to students, but it may be well to note for their guidance that the bronze fulcrum ornament figured on Plate XIV. D has been withdrawn from exhilition by the authorities of the British Museum.

Supplementary Papers of the American School of Classical Studies in Rome. Yol. i. Pp, viii +220 . With 18 plates and 76 blocks in text. New York: Macmillan Company, 1905.

This is the first volume of an occasional publication, which is designed to receive papers of the American School at Rome, which are deemed unsuitable, for one reason or another, for the Americun Jummal of Archueulog!, the usual organ of the Archacological Institute of America.

The volume opens with an elaborate study by Messre. Pfeiffer, Van Buren, and Armstrong, of the brick stamps, found in a short length of the Aurelian Wall at Rome, which collapsed after a storm of rain, in the Autumn of 1902. Other papers deal with questions of topography of the Campagna, Greek and Christian sculpture, the text of Columella, and the chronology of the reign of Julian. A paper on the mounds and other remains of Turkestan by the Director, Mr. Richarl Norton, is also included, but its appropriateness is open to question.

Catalogue of Greek Coins in the Hunterian Collection, University of Glasgow. Vol. iii. Further Asia, Northern Africa, Western Europe. By George Macdonald. Glasgow : Maclehose, 1905. Pp. viii +800 . With 30 plates.

This great work-great not merely in bulk and weight-has been brought to a conclusion, and we should have only congratulations for the author, the publisher, and the University of Glasgow, were it not that Mr. James Stevenson, by whose munificence the undertaking was made possible, has not lived to see its completion. In every way this volume is an improvement on its predecessors; carefully compiled as they were, they! contained fewer additions to the science of the subject, apart from the publication of fresh material, than are to be found in this third volume. A careful study of the Selencid series has enabled Mr. Macdonald to improve considerably on the classification ; in the same way he has made somewhat clearer the arrangement of the Alexandrian, Cyrenaic, and Carthaginian coins. It is unfortunate that the Bactrian series was unrepresented in Hunter's cabinet, for Mr. Macdonald would perhaps have leen able to diffuse some light in this dark corner of numismatics. The fine Roman collection at Glasgow will, we fear, remain meatalogued, unless the University can be induced to fill the gap created by Mr. Macionald's removal to another sphere of work, and unless another Mr. Stevenson can be found to subsidize the publication.

Coin-Types, their Origin and Development. By George Macdonald. Glasgow : Maclehose, 1905. Pp. x+275. With 10 plates.
This volume represents a course of Rhind lectures which were delivered by Mr. Macdonald to a popular audience; but although they are so written as to lee intelligible and interesting to anyone having a slight acquaintance with the Classics, they are entirely free from the slovenliness which characterizes most popular books dealing in the archaeological subjects. There is not a little in the book which the most experienced and learned numismatist will find useful and enlightening ; while, as for the becrinner in classical archacology-not merely in numismatics-we can conceive of no better book to put into his hands. The title expresses the contents of the book very well. The author finds the origin of the coin-type in the badge or arms of the issuing authority ; the theory, thongh not quite new, will doubtless he associated with his name in future, for he is the first to adopt it wholeheartedly, and he has proved it as completely as a theory dealing with such a question can be proved. He is to be congratulated on the moderation and fairness with which he has conducted the necessary controversy. The rest of the volume deals with the subsequent development of the coin-type, notably with the intrusion and gradual domination of the religions element. Some space-as much as is necessary, from the point of view of the book-is devoted to Roman coins; and in the last lecture something is said of mediaeval money, enough to indicate the lines on which the study of their types might be conducted. The plates and index are good.

Der Blitz in der orientalischen und griechischen Kunst. Ein furmgeschichelicher Versuch von Pacl Jacobsthal. Mit 4 Tafeln. Pp. vi +60 . Berlin: Weidmann, 1906. Price 3 ml . 60 .

A very careful and full analysis of the origin and development of the form of the thunderbolt (1) in Oriental (2) in Greek art. The author's thesis is that the lightning was represented in Babylonian and Assyrian art by the same means, or a modification of the same means, as were used to represent ordinary fire, i.e. two, then three zigzag or wavy lines. The Greeks took over this idea and transformed it, conceiving the lightning as a flower, in harmony with a widely prevalent conception of fire and light as a flower. An Ionic and a Helladic form of the thunderbolt are distinguished, and the parts played in the development by the addition of wings and the conception of the thunderbolt as a weapon are discussed. The thesis may be true, bnt its weak point is in the difficulty of proving that the representation of the thunderbolt by flower-like forms corresponded to a conscious idea of flame as flower; how far may it not have been due to a purely decorative instinct?

Phéniciens et Grecs en Italie d'après l'Odyssée. By P. Champatly. Pp. 602. With Map. Paris : E. Leroux, 1906.
This is a work written in opposition to M. Bérard, to show that Phaeacia was Ischia, and the Phaeacians a mixture of Phoenicians and Enboean Greeks. It is described by its author as a 'Geographical, historical and social study, on a New Method'; but the method is a very old one. It consists in taking the text of the Odyssey and ratiocinating upon it by the light of nature, without admitting any non-literary evidence. Of the archaeology of the Homeric and pre-Homeric ages the author makes no mention whatever. His lucubration is often highly ingenions. He explains the portents, which marked Odysseus' arrival in Phaeacia, by volcanic phenomena of the most startling kind : he works Ischian topography into the Homeric by the aid of geology and seismology: he finds a matriarchate of Phoenician type in full force in Phaeacia: he brings the divine Homer' himself to Ischia, one fine day in the ninth century, 'dans les bagages d'un convoi
grec,' and persuades himself that Ischia and Scheria are identical names. Of course everything in the careful topographical work, which the poet proceeded to write on the spot in order to curry favour with the Phaeacian-Phoenicians, fits M. Champault's theories it merreille, and there are no discrepancies at all-a result eminently satisfactory to M. Champault.

Greece: from the Coming of the Hellenes to A.D. 14. [The Story of the Nations.] By E. S. Shuckburgh. Pp. xix +416 . Illustrated. London: 'T. Fisher Unwin, 1905.
By way of apology for the appearance of another short history of Greece, the author of this book points out that it is necessary to the completion of 'The Story of the Nations' Series, to which it belongs, and further, that it serves as an introduction to a future volume on 'The History of Greece subsequent to A.D. 14. The work has, however, a distinct value of its own, being an excellent and up-to-date summary of Greek History, Art, and Literature, written by an experienced scholar. It should be a boon to those who have not the leisure for prolonged study, and yet wish to know something of the results of recent research. The illustrations are grod and, as a rule, well chosen. The least satisfactory feature of the book is the number of misprints, which ought not to be nearly so frequent as they are.

\section*{Beiträge zur Griechischen Rechtsgeschichte. Von Heinrich Swoboda. Weimar: Hermann Bohlaus Nachfolger, 1905.}

It is no easy matter to disengage what is new in Prof. Swoboda's first essay (pp. 1-42, Kritisches zur Achtung), a development of his article on the case of Arthmius of Zeleia in Archüol.-epigraph. Nitteilungen aus Österveich-Ungarn xvi. 1893, pp. 49 sqq., and at the same time a criticism of a recent work by P. Usteri (Ächtung und Verbunnung im griechischen Rechte. Berlin, Weidmann, 1903). In the Greek world outlawry seems to have gone out of use after the fourth century B.c., and no tolerable history of the early stages of the practice can be made out, not even at Athens. With regard to legal terminology Prof. Swoboda argues that originally, i.e in the pre-Solonian epoch, the Athenian formula
 soll chne Busse, ohne Ersatz, sterben, which occurred in Dracon's laws, but, that, when àrıuıu acquired its later meaning of whole or partial loss of civic rights, capitis deminutio,
 \(\ddot{\epsilon} \sigma \tau \omega\). The sentence áyต́yเцоs \(\epsilon \sigma \tau \omega\) was a special form introduced in the Athenian empire in the fifth century, under which the person outlawed had to be surrendered for punishment to the authorities of the State which had outlawed him. The nature and conditions of the punishment are examined with reference to the ancient laws of Germany and Scandinavia, the principal difference noted being that in Greece the penalty was not inflicted for offences against private individuals, but only for what we should call political crimes, in particular attempts to overthrow the constitution and various forms of high treason. Sentence of outlawry was passed in democracies by the Assembly, among the Macedonians by the army. An appendix discusses among other things the fate of Themistocles, and of Demosthenes and the other orators in 322 b.c. It is maintained that they were not outlawed but condemned to death by the Assembly in contumaciam on an eirayye入ia. The second and longer essay (pp. 42-132, Ueber die altgriechische Schuldlknechtschaft) deals principally with the social and economic conditions of Attica in the age of Solon, and will encounter lively opposition. Starting from the code of Gortyn, and making free use of dubious analogies drawn from early Roman' history the author contrasts the condition of the катакєiцєуo,, nexi, debtors who had voluntarily pledged their persons, with the condition of the уєуканєуоt, iudicuti, judgment-debtors, whom creditors had the right to sell into slavery outside Attica. In the next place he distinguishes both these classes from the
ext \(\eta \mu \rho \rho o t\), who are compared with Roman clientes and defined as serfs bound to the soil and paying to their lords annually one-sixth of the gross produce of the land which they cultivated. Solon is made out a violent revolutionary, who not only abolished the ancient law of debt, but cancelled all existing debts indiscriminately, not only swept away the status of serfdom, but gave to the former serfs the frechold of the ground which they tilled. That this view of Solon is diametrically opposed to the opinion of anticuity is not considered a fatal objection by Prof. Swobodia. He thinks the evidence lad and treats with especial severity the account given in Aristotle's ('omstitution of Athens.

\section*{Geschichte der lateinischen Kaiserreiches von Konstantinopel. By Erxst Gerland. Part I. 8vo. Pp. 264. Homburg v. il. Höhe: Gerland. 1905. 6 m .50.} This volume contains the first portion of a history of the Latin Empire of Constantinople, which is itself to form part of a general history of the Frank dominion in the Greek world. The story begins just after the capture of Constantinople by the Crusiders (A.D. 120t), and we have a detailed account of the reigns (A.D. 1240-1216) of the first two Latin Emperors, Baldwin I., Count of Flanders, and his brother Henry. Gerland is already favourably known for his writings connected with the Frunks in Grece, and the present instalment of his work will be welcome to all who are interested in mediaeval Greece and in the seneral interplay of influence between Eastern and Western civilization. The narrative is clear and graphic, and the references to authoritics are much fuller and more exhaustive than in any previous look on the same topics. The statesmanlike character of Henry has not, says Gerland, been hitherto sufficiently recognized : 'seine Institutionen haven die Grumdlage gegeben, auf der sich die Frankenherrschaft in Griechenland weiter entwickelt hat.' The author no doubt reserves for the conchusion of his history of the Latin Emperors some general summing-up of the world-wide consequences of this startling irruption of Feudal lord, Venetian trader, and Latin ecclesiastic into the ancient domain of the Eastern Empire.

Macedonia: its Races and their F'uture. ly H. N. Brallsford. Pp. \(x x+3 \nmid 0\). Maps and iilustrations. London: Methuen \& Co., 1906.
This is an account of Macedonia as it is since the insurrectionary movements of 1903-4, written by a leading member of the Committee, who superintended the distribution of relief on the spot. Mr. Brailsford had had intimate relations with Greeks previously, both during the war of 1897 and the latter stages of the Cretan rising; but in spite of that (perhaps, even, because of it), he makes short work of Greek pretensions to Central Macedonia. He shows himself well equipped so far as knowledge goes both of the ancient and the modern history of the region, and, on the whole, fair-minded. In fact it takes either ignorance or prejudice to find a peasant people, which has a claim to be called Greek in any but an officiul ecclesiastical sense, north of the Monastir railway. Mr. Brailsford has little difficulty in demonstrating that the Central Macedonians were not Greek in the time either of the Macedonian Kings or the Greek Emperors of Constantinople -the only two epochs in which it is any use to prove their national unity with Hellas. The author's essay-like treatment of the divers races and churches inevitably suggests comparison with another book, that of 'Odysseus'; but he handles his subjects well, and will reach an audience that has never read T'urkey in Europe. He tries hard to give the Turk his due and often succeeds, and his personal knowledge of affairs, like that of Smerdesh, makes him a valuable witness: but he might bear in mind more constantly that the programmes of reform, communicated liy sophisticated Komitajis to interested Europeans, are always suspect, and that the desire of place and salary plays a large part in Balkan patriotism.

The Dioscuri in the Christian Legends. By J. Rendel Harris. Pp. 64. 8vo. London : C. J. Clay and Sons, 1903.
An interesting and ingenious little stuly of certain twin-saints of the Greek Calendar who seem to be connected with the Dioscuri. These saints are chiefly Florus and Laurus, Protasius and Gervasius, Kastoulos and Polyeuctes, and their festivals generally fall on or near the 18 th or 19 th of the month. It is also suggested that the writer of the Acts of Judas Thomas (i.e. the Apostle St. Thomas of Elessa, the twin-brother of the Lord) worked upon the legends of the Great Twin Brethren. The argument as to the star and crescent on the regal tiara on coins of Elessa is perhaps pressed too far, as a star or crescent are common ornaments on the tiaras (shewn on coins) of the Kings of Armenia, Persis, and Parthia. It may be added that apart from the evidence of identification in the particular cases examined ly Rendel Harris, he is able to adduce the general testimony of Dion Chrysostom



Die Antike und Wir. Lectures by Th. Zielinski. Translated from the Russian into German by E. Schoeler. 8vo. Pp. 126. Leipsic: Dieterich, 1905. 2 m. 40.
A course of eight lectures delivered to the senior boys of the schools of St. Petersburg, on the relations of classical study to modern education and culture. The first four lectures deal with the educational value of Greck and Latin. The second four deal with the importance of antiquity as an element in modern religion, philosophy, literature, and art. The book is chiefly interesting to an English reader as treating of a familiar subject viewed from a distinctively Russian standpoint.

The following recently published books, among others, have also been received :-
The Museums and Ruins of Rome. By W. Amelung and H. Holtzinger. English ed., revised by the authors and Mrs. S. A. Strong. Vol. I. Pp. xxiv +326, with 170 illustrations; Vol. II. Pp. xii +183 , with 96 illustrations and map. London : Duckworth, 1906.
Anaximenes von Lampsakos. Studien zur ältesten Geschichte der Rhetorik. [Festschr. f. d. xlviii. Versamml. deutsch. Philol. u. Schulm. in Hamburg.] By Paul Wendland. Pp. 104. Berlin: Weidmann, 1905. 2 m. 80.
Aristotle's Theory of Conduct. By Thomas Marshall. Pp. xxi +578 . London: Fisher Unwin, 1906.
Greek Theories of Elementary Cognition, from Alcmaeon to Aristotle. By J. I. Beare. Pp. vii \(+3 \overline{0} 4\). Oxford : University Press, 1906. 12s. 6d. net.

Les Phéniciens et l'Odyssée. By Victor Bérard. Tome Il. Pp. 630. 144 maps and illustrations. Paris: Colin, 1903. 25 f.
Recent Excavations in the Roman Forum. By E. Burton Brown. Second ed. Pp. xvi+227. Illustrations and Plans. London: Murray, 1905.
Heinrich Brunn's Kleine Schriften, gesammelt von Hermann Bruna und Heinrice Bolle. Vol. I. Pp. xi+277, with portrait and 65 illustrations; Vol. II. Pp. 532, with plate and 69 illustrations. Vol. III. Pp. viii +356 , with portrait and 53 illustrations. Berlin and Leipzig: Teubner, 1905, 1906.
Comptes rendus du Congrès International d'Archéologie. Pp. 398. With Frontispiece and 33 illustrations. Athens: Meissner \& Kargadouris, 1905.

A Catalogue of Zodiacs and Planispheres, originals and copies, ancient and modera, extant and non-extant, from B.e. 1320 to A.d. 1900. By A. B. Grimaldi. Pp. viii +176 . London : Gall \& Inglis, 1905.
The Temple of Deir el Bahari. Part V. By E. Niville. Pp. vii +12. Plates cxix-cl. London: Egypt Exploration Fund, 1906.
Platonis Opera. Recogn. J. Burner. Insunt Clitopho, Timaeus, Critias seorsum impressi e Tomo Quarto. [Script. Class. Bibl. Oxon.] Oxford : Clarendon Press, 1905.
Index Verborum Propertianus. By J. S. Phillimone. Pp. 111. Oxford: Clarendon Press, 1906. 4s. 6id. net.
Architecture East and West. By R. Phene Spiers. Pp. xviii +269. 116 illustrations. London: Batsfort, 1905.
Primitive Athens as described by Thucydides. By J. E. Harrison. Pp. xii +168 . With Frontispiece and 49 Illustrations. Cambridge: University Press, 1906.
A Catalogue of the Sparta Museum. By M. N. Todd and A. J. B. Wace. Pp. viii +249 . With 85 illustrations. Oxford: Clarendon Press, 1906.
Die griechische Literatur des Altertums. By U. von Wilimowitz-Moeldi:NDorff. [Die Kultur der Gegenwart, herausg. von Hinneherr.] Pp. 236. Berlin and Leipzig: Teubner, 1905.
Xenophontis Respublica Lacedaemoniorum. Eil. Ginus Pierleoni. Pp. v +62 . Berlin: Weidmann, 1905. 1 m .80.

\section*{THE MODERN CARNIVAL IN THRACE AND THE CULT OF DIONYSUS.}

My attention was called recently to an account by G. M. Vizyenos \({ }^{1}\) of a Carnival festival celebrated in the district about Viza (ancient Bı̧ún) in 'Thrace so remarkable that it seemed worth while to verify the author's account by a personal visit. This I was able to do at the Carnival of 1906, and the account below has been drawn up from my notes, supplemented by this article, from which I quote everything of value.

Of the writer's good faith there is no doubt, and of almost all the points he mentions I had ocular confirmation. He was a native, not of Haghios Gheorghios, the village whose festival he describes, but of Viza itself, the chief place in the district, lying some two hours to the west. He left his native place while still a boy, and died at Athens in 1896, aged forty-two. The middle part of his life he spent in Germany, and he does not seem ever to have returned to Thrace. \({ }^{2}\) His account is therefore probably a description of the festival as it was in his youth some forty years ago, when modern conditions had affected the district even less than at present. He calls it
 classical comparisons as possible. All these I have omitted, and drawn upon him only for matters of fact.

The town of Viza lies on and around the Acropolis of the ancient city, and some eight hours by road north of the station of Tcherkesskeui on the railway between Constantinople and Adrianople, and nine hours from Midheia (Salmydessus) on the Black Sea. It is built on the last slopes of the low hills that shut off the view of the sea, where these rise from the wide plain of Thrace. This is watered by the tributary streams of the Tearus, said to be exactly the thirty-eight reckoned by Herodotus, and is studded with conspicuous tumuli, of the same shape but generally rather larger than those on the English downs. They are said to contain the bones of men and horses, and the iron and bronze fittings of a chariot have been found in

\footnotetext{
\({ }^{1}\) In the first and only number published of

 1897, to which my attention was first called by II.S.-VOL. XXVI.
}

\footnotetext{
Mr. F. W. Hasluck.
\(\because\) Details of his life are giveu in a book on
 ن́nd \(\Sigma a \beta \beta a ̃\) Ө. Auxíoov, Constantinople, 1899.
}
such it tumulus and are now in the Musemm al Sofia: Tu date the hards. seem to be carlier than the begimning of one era, and many of them are a goud deal later. A fair uumber of inseriptions are preserved in the modern town, four of which record names of kings and dynasts of 'Thace, whose palace was at Viza. \({ }^{t}\) 'The most conspicuons remmins of this period are the fine walls (Fig. 1) that still stand on the western and southern sides of the Acropolis, now the 'Turkish guarter, and testify to its former strength. A gate, flamked by a pair of towers and surmomuted by a quadriga, is represented on two coins of Ladrian. \(\Lambda\) Romnan altar; a base sculptured with cupids supporting garlands and hoads of animals, and two early


Fig. 1.-The Walls of Viza.

Christian gravestones carry us further down, and the imposing church of Haghia Sophia (Fig. 2), now a mosque, shews that the place was of some importance in Byzantine times. Not far from Haghia Sophia is a conspicuous domed Byzantinc building, also formerly a church, and within the Acropolis area (Kalch) are other less important ancient and Byzantine remains, the most interesting of which are numerons blocks which once formed the seats of a theatre, and a large vanlted structure of the Byzantine age, to which also belong several fine military towers. Viza is now a town of 3,500 inhabitants, of whom 2,500 are (irecks and 1,000 'Turks, and the seat of a bishop and a Kaimakam.

In all the knot of Christian villages, of which Viza is the centre, the festival in question is celcbrated ammally on Cheese Monday (Tvpopi) \(\left.\Delta \in v \tau^{\prime} \rho a\right)\). This day begins the last week of Carnival, which culminates on the following Sunday (Kuptaкì toô Tupoф́áyou). Lent then begins with Pure Monday (Käapò \(\Delta \in v \tau \notin \rho a\) ), when not only meat, as duriug Carnival, but also all kinds of animal food except bloodless molluses are forbidden.

The masquerade of this day was, even when Vizyenos saw it, no longer kept up in its fulness at Viza itself, but only in the neighbouring villages, of which he takes Haghios Gheorghios (Thrkish, Evrenlu) as an example. At this village I also spent Cheese Monday, and during my stay of a week iu


Fig. 2.-Churci of Haghia Sopha, Vizi, from South-East.
the district was able to supplement my notes by enquiries about the observances in other places.

The list of masqueraders is as follows:-
I. Two калоу'िot (Figs. 6, 7 and 8), who play the principal parts. Their disguise consists of a headlress formed of an entire goatskin without the horns, stuffed out with hay so as to rise like a great shako at least a foot or eighteen inches above the head, and adorned at the top with a piece of red ribbon. The skin falls over the face and neck, forming thus a mask, with holes cut for the eyes and mouth. Round the waist three or four sheep-bells are tied, and their hands are blackened. Their shoulders are monstrously
padded with hay to protect them from blows, which, from Vizyenos' account, they used to receive more freely than at present. He adds that the headdress may be made of the skin of a fox or wolf, and that fawnskins were worn on the shoulders, and upon the legs goatskins. The essential and


Fig. 3.-A Kaloghmos at Viza.
indispensable elements, he says, are the mask and bolls. It would seem from this that the resemblance of the actor to an animal was formerly a good deal more marked than at present. A little boy whom I saw on the Tuesday at Viza acting as kaloghcios (Fig. 3), the only part there surviving,
wore a tall conical fur cap and bells at his waist. He had no mask, but his face as well as his hands was blackened. In one of the villages the kelogheroi do not wear skins at all on their heads, but beehives. One of the lialoglecroi at Haghios Gheorghios carries a wooden phallus (Fig. \(4 c\) ), and the other a mock bow (Fig. 4b).

This bow ( \(\delta \circ \xi\) (ip \(\iota\) ) is in general appearance rather like a crossbow, but is made only to scatter ashes or powder, which are placed in a cow's hom fastened to the end of the moveable piece that takes the place of the arrow. Vizyenos adds that the carrier of the bow is the leader of the two, and the other his servant and follower. I could observe no difference in their importance, though I shall bring reasons below for believing that his

statement that one plays ouly a secondary part is correct, and represents a less corrupt version of the play. In the drama with which the day closes, it is the carrier of the bow who shoots the other, and in this point Vizyenos agrees with my observations; as, however, he says that the second actor is the slayer, he seems to be in self-contradictory error in assigning the bow to the leader.
II. Two boys dressed as girls (Kopit \(\boldsymbol{\text { L }}\) a) , called also in some other villages, according to Vizyenos, vú申єৎ, brides (Figs. 7 and 8). These wear a white skirt and apron, a peasant woman's bodice open in front, and kerchiefs binding the chin and brow. A third kerchief hangs down behind, and from beneath it escapes a corded black fringe like finely plaited hair. \({ }^{5}\) They

\footnotetext{
\({ }^{5}\) The fringe of a kind of woman's scarf is used for this purpose.
}
check any liberties with knotted handkerchiefs weighted with a few bullets．

It is to be noted that the liulogheroi at Haghios Gheorghios must be married men，and the loritsia unmarried．Vizyenos tells us also that these four actors are chosen for periods of four years and that during this time a lonitsi may be betrothed，but must remain ummarried，a father being able to refuse to allow his son to take this part on the ground that he is thinking of getting married（ \(\pi a \nu \delta \rho o \lambda o \gamma \iota \in ́ \tau a \iota)\) ．Of this I could learn nothing；the Tinlogheroi for 1906 had acted for more than four years，and the period seems quite unsettled．But the rule about marriage remains clearly fixed．

III．Next comes a third female character，the Babo，a word in general local use meaning an old woman．This character was not represented in the play I saw，but her place was taken by another female personage described below，the катбıßé \(\lambda a\) ．The Babo herself still appears at other villages and until quite recently was seen at Viza，where she has now been forbidden by the authorities．She is described by Vizyenos as a man dressed as an old woman carrying on her arm a basket containing＇some absurd object or piece of wood swatdled in rags，＇which she treats as a baby．Of this child she is
 \(\pi a \delta i i)\) born out of lawful wedlock of a father whose name she does not know． This account there is no reason to doubt．The Babo＇s child，I was told at Viza，was always regarded as bastard．Kaчouáva I understood to mean ＇murse＇or＇foster－mother，＇but Vizyenos says that the Babo regards the child as her own，and kindred wurds \({ }^{6}\) make it almost certain that the real meaning is＇ummarried mother，mother of an illegitimate child．＇ 7 The word \(\lambda i к \nu\) survives in the district，especially at Sammakóv and Mídheia，meaning a cradle，made as usual of wood and shaped like a trough．Further evidence for it at Viza is supplied by its use in a local version of the song of the＇Bridge


The lines are ：－



I have left my house open，and the brcad in the orcn，and my innocent child in the cradle slceping，spoken by the mother who must leave her home to be killed and buried beneath the bridge that it may be firmly founded．Аıкviそう means to rock the cradle，but \(\lambda_{\iota \kappa \nu i} \tau \eta\) s was explaiued to me as meaning，not the baby，as Vizyenos gives it，but the person who rocks the cradle．For this latter meaning the word should，however，be oxytone，and it is likely that my informant read the word wrongly，and that Vizyenos is making no error

\footnotetext{
\({ }^{5}\) Capseḍda • Midchen，from Bova（G．Meyer， Neugr．Studien，iii．P． 29 and кaұa入âs \(\delta\)
 （Z \(\omega\) үрафеі̃os＇A \(\gamma \dot{\omega} \nu\), I．p．323）．
\({ }^{7}\)＇The meanings＇nurse＇and＇unmarried
}
mother，mother who is not a wife＇are not so far apart but that the word may bear both senses．
\({ }^{3}\) Lakidhis explains \(\sigma \alpha \lambda \delta\) as meaning \(\mu \omega \rho \delta\) ， ＇imecent．＇
in recording \(\lambda_{\iota \kappa v i}\) ияs as a gentinc local word for a baby in a cratle. In any case the use of derivatives of \(\lambda i \kappa \nu o v\) in the sense of cradle is certain. It is only at this festival that a basket is used as a cradle, and even then not invariably. The Babo at Viza used to carry a piece of tile for this purpose.
 winnowing fork. Nowhere else in Grecce have I found any evidence for these words used of baskets or cradles."
IV. The катб九ß'่ \(\lambda o t\), or (lipsies, dressed like the Babo in miserable rags. Of these Vizyenos says there are three or four, ali apparently male, though elsewhere he incidentally mentions the female катбь \(\beta\) é \(\lambda a\). I saw two only,
 some ten or twelve feet long, and their faces and hands were blackened. The Ketsivelos had no other disguise, but his wife wore a woman's coat and on the head a kerchief and a little false hair. When the actors were dressing I was told that it would be the lictsivela who would carry the basket ( \(\kappa a \lambda a \theta_{\imath}\) ) and the baby, and on my asking where the basket was, he ran off and got a rough basket with a little wool in it to make a bed, and, breaking off a piece of stick, put it into the basket and nursed it, and played with it as if with a baby. When the actors began to perambulate the village, this was quickly dropped, and the carrying of the baby seems just dying out at Haghios Gheorghios, where the liatsicelu has partly taken the place of the Babo, and, as being also an old woman, occasionally her name as well. The doll shown in Fig. 4u was made for me at Viza to be exactly like the figure that the Babo there used to carry.
V. The last characters are the Policemen. These are two or three young men carrying swords and whips, with embroidered kerchiefs tied round their fezzes. One of them carried also a length of chain, for making captures. The name I heard for them was \(\zeta a \nu \tau а \rho \mu a \hat{\delta} \delta \varsigma\), i.c. gendarmes, but Vizyenos calls them \(\zeta a \pi \tau \iota \epsilon \in \delta € \varsigma, \kappa о \cup \rho o u \tau \zeta \eta ̆ \delta \epsilon \varsigma\), or фú̀ \(\alpha \kappa \epsilon \varsigma\).

Lastly a man accompanies the others, playing on a bagpipe ( \(\gamma \kappa\) кévta géda).

The masqueraders get realy in the moming and spend the day in visiting each house in the village, recciving everywhere bread, eggs, or money. The two kalogheroi lead the crowd, lnocking loudly at the doors with the bow and phallus, and with the lomitsia generally dance a little hand-in-hand, before the housewife brings out her contribution. They are followed by the kutsivelos and Katsivelu, who are especially privileged to scare fowls and rob nests. In general anything lying about may be seized as a pledge to be redeemed, and the lioritsiu especially carry off babies with this object, and occasionally capture a man with their handkerchicfs. A recuring feature is

\footnotetext{
\({ }^{2}\) I am uncertain whether the modern pronunciation does not as commonly demand \(\chi\) in theso words instead of \(\kappa\). It certainly does in
}
an obscene pantomime between the Reldienlos and his wife on the straw－heaps in front of the houses．

By the afternoon no house was left unvisited，and everybody，men and women，gathered round the open space in front of the church at the top of the village．Here the drama proper is chacted．It began with a hand－in－ hand dance of all the characters，the sondurméthes brandishing their drawn swords．The lalogheroi then withdrew，leaving the field to the gipsy smiths， the Factsivclos and his wife．These sat on the ground facing each other，and the liatsivelos pounded on the groum with a stone，whilst the latsivela lifted her skirts up and down．This is understood to be a pantomimic representation of the forging of a ploughshare，the man hammering like a blacksmith， whilst the fanning with the skirts represents the action of a pair of bellows，


Fig．5．－The Latsiveig miking me Plogghihabe．
and is represented in Fig．5，in which the katsivela is seen pretending to work the bellows on the left，and her husband opposite．At this point，according to Vizyenos，the Babo＇s child begins to grow up，and she finds that to \(\mu \omega \rho o ̀\)
 together with a huge appetite for meat and drink，he begins to demand a wife． This，according to Vizyenos，is followed by the chief kalogheros pursuing one of the koritsia and the celebration between them of a mock marriage，parody－ ing the Greek rite of crowning the bride and bridegroom．The part of кои \(\mu \pi \dot{\beta} \rho \circ \rho\), or best man，is taken by the second lialogheros．I saw none of this，but it was understood that the Roritsia were the wives of the kulogheroi， and I was informed that in the adjacent village of Dzaklé such a mock
mariage is performed with old baskets instead of crowns and the burning of dirt for incense. But both there and also at Haghios Gheorghios both hicloghecroi are married, otherwise, indeed, the presence of the second lioritsi, except perhaps as a bridesmaid, is hard to explain. But the account of Vizyenus, as the comparison made below with the Skyros and Kosti festivals indicates, represents a clearly more primitive tradition.

Presently the first laulugheros was seen samtering about, or standing the phallus upright on the ground and sitting upon it. Meanwhile his comrade was stalking him from behind and at last shot him with the bow, at which he fell down on his face as if dead. After making sure that he was really dead, the slayer traced a line round the body, as if to mark the size of the grave needed. He then pretended to flay ( \(\gamma \delta \delta^{\rho} \rho \nu \omega\) ) the dead body, using for


Fig. 6. -The Fliying of the dead Kaloghenos.
the purpose a kind of pick (chelonnji) \({ }^{10}\) and also making a show of sharpening it stick, as if it had been a knife. A wooden knife is sometimes used. Of this Haying Vizyenos says nothing. It is represented in Fig. 6, in which the bow and phallus are lying on the ground on the left, and in the background on the right the liatsirelos and his wife appear with their long wands. The padded back of the dead masker should be noted. Whilst the laclogheros is thus lying dead, one of the lioritsia in the character of his wife laments for lim with loud cries, throwing herself across the prostrate body, as is shewn in Fig. 7. The latsivelos and his wife also form part of the group. In this lamentation Vizyenos says that the slayer and the rest of the actors join,

\footnotetext{
\({ }^{111}\) A grecized form of the Turkish buthenk:
}
making a regular parody of a Christian funeral, burning dung as inceuse and pretending to sing the service, and finally lifting up the corpse to carry it away. After the lamentation of the lioritsi the dead man suddenly came alive again and got up, thus ending this part of the play.

Then the kutsicclus and his wife repeated the forging of the ploughshare, this time hammering on a real share. At some time in the play the katsivelos usually rides on a donkey, but this was omitted owing to the bad weather. Snow had been falling all day, and perhaps the extreme cold tended to curtail the details of the performance. Vizyenos also mentions some rough play with a donkey, but puts it down to the licelogkeroi. At about this point all the implements used were thrown high into the air with cries, 'Kaì tô \(\chi\) póvov,' ' Next year also !'


Fig. i.-- The Dead Kalugheros Lamented diy has bmoe.

The share being supposed to be finished, a real plough was brought forward, and the mockery seemed to cease. Instead of oxen, the lioritsia were yoked and dragged it round the village square twice contrary to the way of the sum. One of the kalogheroi was at the tail of the plough and the other guided it in front, whilst a man walked behind scattering seed from a basket. This is shewn in Fig. 8, with the Tatsivelos and his wife walking in front. The man with the seed was not included in the photograph from which the drawing was made. The liatsicelos and liatsivela were then yoked and made a third circuit, the kelogheroi still guiding. Vizyenos says that the Ralogheroi draw the plough, in which he seems to be thinking of the practice at Viza, where until recently this custom was still kept up and it was so
drawn. But at Haghios Gheorghios it seems always to have been drawn by the lioritsiu, for a native now resident at Viza, who had not seen the festival for ten years or more, corrected Vizyenos' report on this point. The cries whilst the plough is being drawn I take from Vizyenos: Nà yeivpŋs (sic) סéка


 liyg fice piastres the bushel! B'erley three piestres the bushol! Amen, O Gorl, that the poor may cat! Y'ce, 0 God, that poor foll: be filled!

This was the end of the play, and the evening was spent in feasting on the presents collected during the day.


Fin: S.-The l'movghing.

Such is the festival celebrated every spring by the Greek community in these villages. Before examining it more closely it will be convenient to notice some other similar customs.

A kindred festival is observed on the same day at Kostí, in the very north of Thrace, near the Black Sea and the Roumanian frontier. I take an account of it from a pamphlet published at Constantinople. \({ }^{11}\) A man, called the \(\chi\) ف́ \(\boldsymbol{\omega} \boldsymbol{\omega} \sigma \tau=s\) or коикךрos, \({ }^{11:}\) dressed in sheep or goat skins, wearing a mask and with bells round his neck, and in his hand a broom of the kind used for sweeping out ovens, goes round collecting food and presents. He is addressed as king and escorted with music. With him is a boy carrying a wooden bottle and a cup, who gives wine to each householder, receiving in return a gift. They are accompanied by boys dressed as girls. The king

\footnotetext{


 \(\mu\) ovp §ádov, Constantinople, 1873, p. 22.
}
then mounts a two-wheeled cart and is drawn to the church. Here two bands are formed of married and ummarried men respectively, and each tries to make the king throw upon themselves the seed which he holds in his hands. This he finally casts on the ground in front of the church. He is then thrown into the river, stripped of his skin clothes (ó \(\boldsymbol{\lambda}^{\prime} \gamma v \mu \nu o s\) ), and then resumes his usual dress. The throwing into the river is clearly a rain charm.


Fig. 9.-Masquelader hion Shyios. (From B.S.A. xi.)

The custom at the Skyros Carnival described by Mr. Lawson, \({ }^{12}\) and again by the present writer, \({ }^{13}\) is closely allied, though much less of it is left. There is no drama, but only the going about the town of sets of three masqueraders, the Old Man ( \(\gamma\) ¢́ \(\rho \circ \mathrm{s}\) ) (Fig. 9 \()^{14}\) with bells and skin mask and,

\footnotetext{
\({ }^{12}\) L.S.A. vi. 1. 125.
1: E.S.A. xi. p. 72.
is lieprotuced from Li.S.A. xi. p. 73 , Fig. 1.
}
according to Mr. Lawson, with skin cape also, who answers to the leading kelogheros of 'i'lurace, the Frank (фрíyкоs), not dressed in skius and probably corresponding to the second lielogheros, and the lioritsi, a boy dressed as a girl. The statement of Vizyenos that only the first lielogheros is married and the single skinclad 'king' at Kostí, and the single Old Man with his bride at Skyros, make it likely that this represents a clearer tradition, and that the marriage of the second lirlogheros is a comparative innovation. A passage in Fiedler, who observed the custom, shows that the phallic element was formerly present at Skyros also. He says: 'Einige kamen als Franen verkfeidet und Maemer hatten einen Flaschenkuerbiss mit langem Halse, von welchem sie einen sehn obscoenen Gebrauch machten zum allgemeinen Gelaechter der Zuschauer.' \({ }^{15}\)

These observances fall into line with the numerous spring festivals of the spirit of vegetation, of which 1)r. Frazer has written at length in the Golden Bough. The king and the rain charm by wetting at Kostí, and the marriage, death, and resurrection at Viza, are unmistakable marks of this almost worldwide group of customs. The prayers duning the ploughing ceremony for ann aboudant harvest show that this is, or was, regarded as a magic rite to make the crops grow, as in the cases collected by Dr: Frazer, \({ }^{16}\) where it is especially the work of women. The dancing and leaping of the principal actors, so conspicuous at Skyros, fall, like the jumping of the Salii at Rome, under the same head, \({ }^{17}\) and the protective padding of the back seems to point to a custom of beating the victim to be slain, and if, as seems probable, the beating of the Roman scapegoat Mamurius Vetulus was inflicted by the Salii, an interesting parallel is suggested by the padded backs of the kelogheroi and the long wands carriad by the kutsiveloi.

But such a custom in Thrace suggests also a survival of the worship of Dionysus, upon which recent researches have thrown so much light. The circunstances are favourable to such a survival in a Greek community occupying the old city of the kings of Thrace, and surrounded and isolated by later elements of population, Bulgarian and Circassian.

The first striking point is the old nurse Babo carrying the child in a \(\lambda i \kappa \nu \iota\). The survival of this word in the sense of a cradle, coupled with the strange use of a basket for the Babo's child, can hardly, under the circumstances, be anything else than a direct descendant of the classical use of the liknon in the worship of Dionysus. Then, as now, a basket was not a usual form of cradle, and when it was used it was with the idea of magically bringing good luck and fertility. The Babo, if каұонáva can meau foster-mother, will thus represent the nursing nymphs, and in any case the tradition that the child is
 the premature birth of Dionysus, the love child of Semele, son of a mysterious father. The complaint of the Babo, that the child is growing too big for his cradle and wants a wife, suggests his identification with the leading kalogheros,

\footnotetext{
\({ }^{15}\) Fiedler, Reise durch alle Theilc des Kocniy. reiches Gricchenlaud, 1841, ii. 1. 83.
}

\footnotetext{
\({ }^{16}\) Golden Bough, i. p. 98.
17 IVid. i. 1. 36.
}
who is at that point of the play just about to take one of the lioritsiu as his wife. A marriage is known to have been a part of the cult in Crete and at Athens, where it took place in the bouklion, a place connected with the solemn ploughing ceremonies of \(\Lambda\) thenian religion. \({ }^{14}\) That a phathophomiu formed part of the worship of Dionysus has been clearly shown. \({ }^{13}\). The death and the mimetic flaying and resurection follow in due order. But what is to be said of the leetsircloi, the gipsy smiths who make the plough, and of the almost indistinguishable actor who kills the Dionysus? The classical Dionysus was killed by his worshippers and attendants the Titans, who also were smiths, so it may be hazarded that the second actor and the liatsiccloi represent characters originally the same, and these simply the worshippers of the god. The identification of the Satyrs with the Satrae of Thrace, and of the Titans with the worshippers, who first killed and then lamented the god, shows that the second actor and the latsiceloi have this common origin and are to be compared with the Kouretes and Salii. The significance of their rods in the light of the beating of the Roman scapegoat by the Salii has been alluded to above, and whilst Vizyenos asserts that the lictoghcroi beat one another, it may be suspected that originally a beating was inflicted upon the tirst Kalogheros by the second and the rod-bearing latsivelin. In later times, when the gipsies came to be regarded as the typical smiths, the making of the ploughshare, the special task of the god's typical devotees, was assigned to them, whilst the part of the slayer has by an odd confusion been given to a duplicate of Dionysus, whose later origin is indicated by the parallels at Kostí and Skyros, where it is possible that once the Erank killed the masked acter: \({ }^{20}\) The obscene gestures of the gipsies seem likely to be a survival of the marriage of the principal character. The use of such acts as a fertility charm, whether the comnexion with the straw-heaps be accidental or not, is noticed by Dr. Frazer. \({ }^{21}\)

The disguise as an animal and, although all sorts of skins are used, presumably from his drawing the plough, as a bull, fits with the tauromorphic form of the Thracian Dionysus. The death and flaying of the laalogheros thus appears as the descendant of the practice of killing and eating the bull-god of vegetation, possibly once as a human victim.

The giving of wine by the king at Kostí is an act worthy of the wine god, the more remarkable as such masqueraders are generally more apt to take than to give. It reminds us of the miracle of St. George of Skyros, who on his festival multiplies the wine poured into a jar sunk in the earth in front of his church. \({ }^{2}\) -

\footnotetext{
\({ }^{18}\) The Boukoletion and the Bouzygion, the fich of the sated ox-ploughing, were in close connexion. Harrison and Verrall, Mythology ctur Montments, p. 166.
\({ }^{19} \mathrm{~J} . \mathrm{E}\). Harrison, 'Mystica vamut lacehi,' J. \(/\).S', xxiii. p. 322.
\({ }^{20}\) It is prossible that the second kaloyhcros is the divine king of the coming year, who
}
kills his predecessor, just as at Nemi each king was killed by his successor. But the single actors in the parallel Greek observances make the view followed in the text, that the second kalingheros is later, more likely.
\({ }^{2}\) Golden Bough, ii. p. 205 sqq.
\({ }^{22}\) B.S.A. xi. 1, 75.

Gommon to all these festivals is the use of bells，whone prophylactic mature has been shown by Mr．A．I3．Cook．2．Especially to the point here are the clashing shields of the Salii，compared by Dionysias（II． 70 ）with the Curetes，wh which Warde Fowler says：＂The wh Latins believed that the spirit which was begiming to make the crops grow must at this time （March Ist；be protected from hostile demons in weder that he might be free to perform his friendly fimetions for the community．＇\({ }^{24}\)

In view of the resemblance of these festivals to one another，the history of the populations of Skyros and of this part of Thrace is of importance．The subject is obscure and I am indebted to Dr．Clon Stephanos for a reference to a contemporary authority from which we learn that in 1645 the Venetian Foscolo transported the inhabitants of Skyros to Corfon．Thus it appears that the present inhabitants have hardly been there more than two humdred years．

If the jsland was thus depopulated，there are some indieations whence the new inhabitants came．A study of the modern dialect of the town of Sarinda Ekklisíes，about nine hours north－west of Viza，has recently been published，\({ }^{2 / 6}\) in which the writer points out that it，varies from the norm of the Northern Greek dialects as laid down by Hatzidhakis，\({ }^{27}\) that in unaccented syllables \(c\) and \(o\) change to \(i\) and ou，whilst \(i\) and on disappear，in ouly being subject to the latter change．I noted the same peculiarity in the almost exactly similar dialect of Viza．From this，and from certain points of resem－ blance to southern dialects，the writer suggests that the pupulation of this part of Thrace has come from some southern region since the fifteenth century， Hatzidhakis assigning the beginning of the differentiation of the Northern and Southern dialects to that period．But the vesemblances on which he relies are very slight，and the point that seems really remarkable is that as regards this rowel－weakening，the dialect of Skyros stands in exactly the same position as these Thracian idioms．2＂Before drawing any certain conclusions，it would be necessary to have a more extended knowledge of the modern dialects than the material at present available admits．But it seems at least a plausible view that the vacancy created in Skyros by Foscolo was filled by emigrants from Thrace，bringing with them this festival．

It may also be noted that the native embroidery of Skyros has nothing in common with that of the southern islands，whilst it is almost indistinguish－ able from that of the northern regions to which the dealers give the general

\footnotetext{
23 ＂＇lhe Gong at Dorlonit，＇J．II．S．xxii． p． 5.

2t Rumun F＇cstivels，p． 41.
2：The reforence is to a prem on Cretan history of which an malysis is given in Toup．
玉a日a，Athens，1869，1川．225－z25．＇This deportation of the Skyrians is naratell on 1．265．
}

\footnotetext{


 \(\sigma\) є \(̀ v\), Athens， 1905.
\(\because\) Einlcituny in dic Niugriech．Grammalil， 1． 342.
\(\because\) Ihis and some other points in the dialect of Skyros I noted during a visit in 1905.
}
name of Jannina. It thus appears that whatever evidence we have tends to connect Skyros with the north, and thus to bind together this closely allied group of Carnival observances.

\author{
R. M. Dawkins.
}

I owe to Mr. Bosinquet the following note on a custom which he witnessed at Tripolitza in the Peloponnese. He writes that it is an old custom in this place for the boys to rum round the town at sunset on the last day of February, clashing bells, and with especial vigour round any lame person they may meet. He saw the troop of boys brandishing bells, or with bells round their waists, headed by a lame boy, who carried no bell, but swung himself along at a great pace with the help of a stick. Asked what
 (Lame Febrnary), or 'ठıஸ́кvодєv тò коитбоф入є́ßaро.' Lame people are treated as personifications of the lame month. Mr. Bosanquet suggests that contact with some such custom may have helped in Skyros to obliterate the other features of the Carnival play, and to generalise and emphasize the bellringing element.
\[
\text { Note in uddition to Note 7, p. } 190 .
\]

With the Babo compare the ancient Baulo (Clem. Alex. Protrept. ii. 20). With the derivation of the meaning 'mother of an illegitimate child' from ' maiden-mother' compare the Lacedaemonian papthenioi.

In Zagori in Epeirus качо- is used as a pretix to the names of unlucky
 Leslisehe Dialcht, p. 387.
R. M. D.

\section*{NOTES ON 1 RECENTLY EXCAVATED HOUSE AT GIRGENTT.}

This house, known locally as the Casa Greca, was partially excarated about two years ago at the private expense of the owner of the land: it lies on a level site to the east of the road leading from modem Girgenti to the temples, directly opposite the church and gardens of S. Nicola, and a short distance north of the 'Temple of Concord.

For the most part, the ground has here risen about four feet since the Greek period, and the existing remains present a complete horizontal section of the house up to that height, formed by the lowest drum of the columns and from two to four courses of masonry in the walls.

It is unfortunate for the elucidation of the plan that the excavation has not been carried further north, as this would obviously have disclosed additional parts of the building and might have rendered it possible to define its full extent.

At present the house is entered from the west side of the peristyle, where, owing to a fall in the ground level, no indications of a boundary wall now remain.
I. The Peristylc.-With one exception the columns are all in situ, with drums of slightly varying height: they are polygonal on plan, with twenty flat sides corresponding to the flutes of the Doric column.

Like the rest of the masonry throughout, they are cut from blocks of the brown porous Girgenti stone, which in the case of the temples was invariably coated with marble cement.

Between the columns ran a course of flat stones forming a kind of plinth, and the square holes cut in the shafts indicate that a railing or balustrade separated the central area from the peristyle proper. A few of these plinth stones are still in position, and on the west side there is a small section of rough tesselated pavement with a lozenge-design in white spots on a rerl background.

The boundary wall on the east side contains some large blocks of stone, one measuring \(6 \mathrm{ft} .2 \mathrm{in} . \times 2 \mathrm{ft} .5 \mathrm{in} . \times 1 \mathrm{ft} .10 \mathrm{in}\). : the masonry is not very well finished, and as a rule is laid in courses of fair regularity about 18 in . high.

In this wall is embedded a capital belonging to the columns in Room VIII., but unfortunately there are no remains of the order of the peristyle except the drums of the columns.

lioun 1.-Should perhaps be more properly regarded as a covered recess attached to the peristyle. The opening is too wide for a door, and there is nothing in the pavement to point to the removal of any part of the front wall which might have formed a doorway.

In the centre of the floor there is a square opening 3 ft .10 in . across elged with a narrow stone curb and now filled in with earth. It was not possible to ascertain whether this covered a stone pavement at a lower level, hut in any ease it was obviously the hearth.

The rest of the floor is covered with a white tesselated pavement laid in plain lines.

Room 11.-Commmicates only with IV. The floor is of beaten earth, raised several inches above the general level, over a low basement, possibly some kind of hypocaust.

Room III.-The entrances from the peristyle and Room I. are very narrow (only 2 ft. 9 in. across) and show no provision for doors: a wider opening leads to IV.

The floor is the most elaborate of the whole series, and consists of an outer border of white tesselation as in I., and a centre formed of pink and blue slabs of veined marble, of which one corner remains intact.

Room \(/ V\).-Contains a bath. This is sunk about 1 ft .10 in . below the general level and lined with \(1 \frac{1}{4} \mathrm{in}\). of cement smoothly finished on the outer face, and rounded off at the angles.

It communicates with the basement under II. through an opening covered by a stone slab, and faced with red 'tegulae' about 9 in . square laid with very thick mortar joints according to the Roman method.

The rest of the room has a white tesselated pavement.
Room V.-Has a wide opening to the peristyle. In the S.W. corner two large slabs of blue veined marble are let into the floor, which is otherwise roughly tesselated in red, with a slight fall to three shallow gutters meeting in a circular drain carried down through the floor. Unless the room was open to the sky, this is evidently not a rainwater outlet and might point to the use of the room as a kitchen.

Room VI.-Has four doorways, and a tesselated pavement of rather more elaboration with a white design on a red background.

Room VII.-Has the only example of a doorway with 'reveals' on the jambs for the reception of a door: the opening is also of greater width than most of those leading from room to room.

The floor is of beaten earth, and the dividing wall at the end has now disappeared, but its existence may be traced in the foundations.

The wall between V. and VII. curves downwards to the centre in a way which recalls the curving walls of the Egyptians, variously explained by Choisy and others. The curve is here so pronounced that it cannot be due
merely to settlement, but must have been taken into account when the courses of masonry were set out.

Room Y/II.-A portion of the Atrium. As the excavations have here ceased, the extent of the colomnade camot at present be determined. The three columns exposed are considerably smaller in diameter than those of the peristyle, and have twenty flutes, properly exceuted. A capital belonging to one of these columns is embedded in the eastern wall of the peristyle and shows considerable refinement of outline, allowiug for the fact that the final surfaces would be worked on the marble cement facing. The echinus is thoroughly Greek in its curve, and below the anmulets oceurs the typical Sicilian hypotrachelinm, in this case a flat surface, but more usually cut back into a deep hollow as in some of the Selimus capitals.

The lower part of the last column to the west is covered with stucco in such a way as to fill in the flutes and bring the outer surface of the shaft to a plain cylinder, and this was painted a reddish crimson of the tone familiar in Roman domestic work.

This colnmn in itself is enongh to prove that the house was occupied at two distinct periods, in the second of which architectural detail was sacrificed in order to obtain a flat surface for painting.

On the sonth side a recess in the wall contains a well or cistern: the cover stands about two feet above the floor and has a circular opening. \({ }^{1}\)

The general disposition of the house shows only the most rudimentary system of plaming. The rooms are mainly in suitc and there is an entire absence of passages. The peristyle could only be reached by passing through at least me pair of rooms, and the extension on the west side, as shown by existing fragments of wall, would evidently consist of two more rooms.

A comparison of the plan with that of Dorpfeld's 'house at the l'eiraeus'" shows several points of similarity, notably the cistern in the Atrium and the paved recess opening from the peristyle, in this case, however, without the hearth.

Ronald P. Jones.

\section*{Note.}

At Mr. Ronald Jones's request I add a note on the archaeological aspects of the house, of which he gives an arehitectural description.

Since he does not venture on any definite estimate of the date of the house, it would be very rash for me to do so, merely from his drawings ; but it seems clear that he is justified in his inference that the house shows two different periods of construction, the one Roman and the other pre-Roman. It is not easy, from the present data, to distinguish what belongs to each period respectively, though the bath, for instance, and the later coating of the

\footnotetext{
\({ }^{1}\) I was informed that this cistern communicates directly with the Bath in Room IV., but
it was not possible to verify this at the time.
\({ }^{2}\) Ath. Mitth. ix. P1. XIII.
}
columns in Room VIII., clearly date from Roman times. The general plan of the whole does not seem to have undergone any essential alterations.

The only satisfactory evidence for the date of the earlier period of construction is offered by the Doric capital from the columns in Room VIII. Mr. Jones's drawings show that the profile of this capital is of a refined and delicate curve, worthy of the best period of Greek architecture. Such a profile would probably, in Greece, imply a date not later than the fourth century; but it is possible that the best artistic traditions may have been preserved in Sicily to a later date. The type of the capital, with the flat band round the head of the shaft, occurs in Italy; examples quoted by Mr. Jones in a letter are those in the Forum at Pompeii and in the temple at Cora. In the latter, the band is much broader, the echinus appears to be quite flat, and the proportions are less satisfactory; the temple is assigned by Spiers and Auderson \({ }^{3}\) to the time of Sulla. The capitals from the earlier portion of the colonnade of the Forum at Pompeii have more resemblance to the one in the house at Girgenti ; these were erected by the quaestor Popidius, and are pre-Roman ; according to Man \({ }^{+}\)they probably belong to the second half of the second century b.c. In the Pompeian colonnade, as in the large peristyle at Girgenti, the lower parts of the columns have flat flutings; the complete fluting in Room VIII. is of course earlier in character.

We seem then to be justified in assuming that the house at Girgenti is at least pre-Roman in its earlier construction ; and therefore that any comment on its plan must be based on a comparison, not with Pompeian houses, but with Greek houses such as those of Priene or Delos, or with the somewhat confusing example from the Piraeus in which Mr. Jones finds the nearest analogy. I think therefore that it would be wiser to avoid the term atrium, as applied to Room VIII., at least so far as concerns the earlier period. It is of course unfortunate that the excavation has not been carried further, and the incompleteness of the plan makes it all the more difficult to explain. The relation of the two courts, for example, is far from obvious. In the only known houses of Greek type that have two courts, these have been produced either by joining together two houses originally separate, \({ }^{5}\) or by building another court on to an earlier and simpler house. \({ }^{\text {b }}\) It is possible that one of these two explanations may apply in this case also, but we must remember that Vitruvius describes the Greek-or rather the Hellenistic-house as having normally two courts, one for family life and one for entertainments; and this Sicilian example may represent the type he describes. The most interesting feature is the deep recess opening out of the north side of the peristyle, numbered as Room I., and containing a hearth in the middle of the Hoor. Such recesses, in a more or less corresponding position, are common in the Delian houses, and may be a survival of the original pastas, but in no case except this is a hearth preserved in one ; the matter is of considerable import-

\footnotetext{
\({ }^{3}\) Architecture of Greree ant Rone, 1. 145.
\({ }^{4}\) Pompcii, tr. Kelsey, 1, 50.
\({ }^{3}\) e.g. Prient, house, xxxiii, p. 297.
}

\footnotetext{
\({ }^{6}\) e.g. Pompeii, the house of Sallust, ManKelsey, p. 277.
}
ance, as the presence of the hearth is a strong confirmation of the identity of this recess with the exedra mentioned by Galen \({ }^{\text {i }}\) in the primitive house as facing the door of the court and contaning the hearth. A hearth is found in one instance at Priene in the corner of the porch of the chief room, in a similar position in the house."

There is ample material for speculation in other matters connected with the house at Girgenti ; but in the present state of our knowledge it is perhaps wiser to go no further.
F. A. Garmanti.

\section*{GREEK BOXING.}
[Piates XII., XIII.]

The boxing of the Hellenic world even in the fifth century b.c. could boast an antiquity and renown to which modern pugilism can offer no parallel. The 'noble art' was associated with some of the most famous names of the heroic age, including even kings and demigods, so that the opprobrium which has become attached, perhaps unjustly, to the term 'prize-fighter' was precluded from the titles of the Greek champions. The antiquity of the sport is shown by the vivid descriptions of Homer and the place assigned to it in the Funeral (iames, while a fragment of a relief showing a boxer armed with i \(\mu a ́ \nu \tau \epsilon \varsigma\) discovered by Dr. Evans at Cnossus carries us back to a remoter past. \({ }^{1}\) In historic times especially in the earlier period we find the Ionians were the chief boxers and supplied most of the champions. \({ }^{2}\) The Dorians, especially the Spartans, do not seem to have looked upon pugilism with much favour, although some victors are known to have come from the Peloponnesus. In the fifth century, however, Rhodes, Aegina, Arcadia, and Elis secured the greatest number of victories at Olympia \({ }^{3}\) in boxing and pancratium. This antiquity of boxing must have given the fighting men of the classical period the adrantage of a rich store of accumulated experience and ringeraft, a fact which has great practical importance when we remember the different theories and tacties from which modern boxing has been evolved. The style of a well-trained pugilist is no more that which naturally suggests itself than the lunge of the modern fencer is the mode of attack instinctively employed by a novice. The Greek method of boxing, however, seems to have been surprisingly conservative: during historical times it changed in detail, especially in matters of equipment, but the Greeks having once chosen their style seem to have adhered to the same principles throughout and to have carried them to their logical conclusion. The reason of this is probably to be found in the fact that when the Greeks were first confronted with the practical difficulties of attack and defence in the ring they resorted to arti-

\footnotetext{
\({ }^{1}\) Annueal of Brilish School of Athens, 1900 1901, p. 95.
\({ }^{2}\) Krause, ii. 766.
}

\footnotetext{
\({ }^{3}\) See Oxyrhynchus papyrus, II. 222; C. Robert in Hermes, Vol. xxxv. Part I. pp. 141195.
}
ficial remedies instead of learning how to use their fists. In the earliest contests of which we have any evidence strips of leather were wound round the knuckles and forearms of the combatants to prevent the fists from puffing and the arm from being broken, as it easily might be in round or downward strokes. These thongs, called simply ipávtes in Homer, "and subsequently named \(\mu \in \iota \lambda i \chi a \iota\) to distinguish them from the weapons of later days, can scarcely be regarded in the same light as modern boxing-gloves. It is true that they seemed mild in comparison with \(\mu \dot{\rho} \rho \mu \eta \kappa \epsilon s\) or even the later \(i \mu(\dot{\mu} \nu \tau \epsilon \varsigma\), but we cannot accept the assumption of Dr. Krause and others that they actually deadened the blow of the fist. Professional pugilists seem to agree that fights of the present day in which very light gloves are used are more severe than if bare fists were allowed: the gloves have not enough padding to make any appreciable difference, while they prevent the knuckles from swelling and deadening the blows. This must have been the case to an even greater extent when strips of leather were employed.

When once the \(\mu \epsilon i \lambda i \chi a \iota\) were officially adopted the practice of round hitting was confirmed and subsequent developments tended to make the thongs harder and heavier, till we find the \(\sigma \phi a i ̂ \rho a \iota\) and \(\mu \dot{\rho} \rho \mu \eta \kappa \in \varsigma\), and finally the disgusting cestus of the Roman amphitheatre. But the development was gradual. The Boxing contest was first held at Olympia in the 23rd Olympiad ( \(688 \mathrm{Bl.c}\). ) and the Boys' Boxing was added in the 41st. \({ }^{4}\) Throughout the classical period it was an important event in all the chief athletic meetings.

The brutal \(\sigma\) фaîpat \({ }^{5}\) were known in the fourth century and Plato " recommends them as a means for discovering tóv \(\tau \epsilon \epsilon \nu ้ \psi v \chi o \nu ~ \kappa a i ~ \tau o ̀ \nu ~ \mu \eta ́, ~\) and eveu makes provision for freeing the combatants from responsibility in cases of death which must sometimes occur! But such instruments as these were apparently not used in the great national festivals. At any rate the vases do not show them. The \(\mu \epsilon \lambda \lambda i \chi a \iota ~ s e e m ~ t o ~ h a v e ~ b e e n ~ u s e d ~\) in early historic times, and certainly were worn in the fight between Creugas and Damoxenus at the Nemean Games. \({ }^{7}\) During the fifth and fourth centuries the thongs were made harder and heavier, and towards the end of the fourth century and in Hellenistic times we find the type which is shown in the Panathenaic vase in the British Museum dated 336 b.c., and which is worn by the well-known bronze statue in Rome of a seated Boxer belonging to the Hellenistic period. Further than this we need not go in the evolution of the cestus, for nothing is gained from the contemplation of Roman methods of amusement: while it is unlikely that the gauntlets of the Roman poets were ever used in genuine Greek competitions. The Greek anthology, however, contains many epigrams on the terrible wounds inflicted by the \(\mu \dot{\nu} \rho \mu \eta \kappa \epsilon\). \({ }^{8}\)

The foregoing sketch shows that the conditions of Greek boxing seem

\footnotetext{
\({ }^{4}\) Pras. v. 8. 9.
\({ }^{5}\) Pollux, iii. 150.
\({ }^{5}\) Lauts, viii. 830.
}

\footnotetext{
7 l'aus viii. 40. 3'.
8 The subject is fully worked out in Antike Turamirathe by J. Jithmer.
}
to have remained much the same from the begiming of the sixth century to the end of the fourth, and that although the tendency was to make the fist-covering more severe yet nothing was introduced that necessitated a style of fighting different from that described by Homer. This alone would be enough to show that, boxing had already passed through several stages before it reached the one that commended itself to the Greek mind, and boxing pre-supposes a fairly advanced stage of civilisation, to ensure fair play, and considerable experience to learn how to finish a man off by sheer hitting unassisted by kicking or strangling. It is difficult to account otherwise for the conservatism of Greek boxing, and in this connexion it is interesting to glance at the frequent and radical changes made in our own Prize-Ring, the number and importance of which are not perhaps generally realised. The father of English prize-fighting was Figg, whose portrait was painted by Hogarth, and whose name stands first on the roll of recognised champions.' His date is 1719 . The period between that date and the Sayers-Heenan fight in 1860 covers the whole history of the genuine P.R. during which the science of fist-fighting was evolved and was brought as near perfection as is humanly possible. The attitudes and tactics of the Belchers were very different from those of Figg. During this period throwing was allowed as well as hitting, and a fall would often have more effect on the issue of a fight than a blow which might seem more effective to a spectator. A round came to an end as soon as either combatant went down, so that they varied greatly in length. In all these fights bare fists were used, which Englishmen feel to be the only true and correct style of boxing; 'all the rest are mere imitations-mere travesties of the original : to excel in them one has to abandon some of the elementary rules of the orthodox art.' \({ }^{10}\) When, however, the exalted morality of the Victorian age had declared fist-fighting to be not only illegal but undesirable, buxing with gloves was introduced under a new set of rules in which wrestling was forbidden: a change which enables some men to win fame who formerly would have stood no chance of first-class honours. At the present time the abuse of the 'knock-out' with the right on the jaw, and the exigencies of glove-fighting are vitiating the style of all but the best boxers, professional and amateur. Thus in Englaud much has happened in a comparatively short time. We must now find what were the Greek tactics and how far we can recover the regulations in force in different epochs and especially during the best days of Greece.

Unfortunately the evidence is mostly of a conventional nature, and so must be treated with caution. The literary accounts are either very early or very late, and most of the latter seem ta be echoes of Homer. The vases on the other hand do not help us nearly as much as might be expected. The scenes on vases of a good period which are of any practical value are

\footnotetext{
\({ }^{9}\) Bathminton Library, Fencinly, Joncing, und \({ }^{10}\) Madminton, Penciny, p. 144. W'restlinu, p. 135.
}
very few, and even in these allowance must be made for the conveutions of the vase painters.

Let us take the literary evidence first. We have the well-known descriptions of boxing-matches in Homer and Vergil, \({ }^{11}\) which are admirably discussed in the Badminton Library, \({ }^{12}\) though the account of the Homeric contest seems to include some misunderstanding of the Greek. \({ }^{13}\) We also have the account by Theocritus \({ }^{14}\) and one by Apollonius Rhodius. \({ }^{15}\) Quintus Smyrnaeus and Statius also follow the established epic tradition. We need consider only those matches which were fought with i \(\mu a ́ \nu \tau \epsilon \varsigma\). In the later accounts the gloves were of such size and weight as to dominate the whole character of boxing and to make it more like fighting with clubs : accordingly the post-Alexandrine stories are of little intrinsic value as evidence for Greek boxing, though they occasionally throw a sidelight on earlier narratives. Even the \(\mu \epsilon \iota i \chi a \iota\), however, make comparison with English boxing difficult, so we must be particularly thankful that Homer has described the fight with bare fists between Irus and Odysseus with a clearness and moderation very rare in the annals of the ring. It is clear that such encounters were of common occurrence from the readiness with which the challenge was given and taken, the easy but strictly orthodox manner in which the preliminaries were arranged, and the sporting spirit of the nobles, who evidently loved a fair fight for its own sake whoever the combatants might be. The two competitors presented a very different appearance. Irus was much the taller and heavier \({ }^{16}\) and had also the advantage in age. Odysseus on the other hand was of medium height but broad-shouldered, deep-chested and muscular: \({ }^{17}\) evidently a typical middle-weight : ten years earlier he had been one of the best runners and wrestlers in the Greek army, so that he had possessed that quickness on which a middle-weight must rely when pitted against a man heavier than himself.

The tactics he adopted were exactly those which a modern professor would employ against a heavier but unskilled opponent, namely, drawing and countering. His success was complete. Irus was much dismayed when he saw how big his opponent stripped and was probably more so when he met the eyes of the king. Anyhow he seems to have made a half-hearted lead off more as a feeler than a blow, as beginners often do when starting a round with an opponent with whom they are afraid to close at once. This blow contrary to the usual custom must have been delivered with the left for it hit the right shoulder of Odysseus. It may have merely fallen short, but when we remember the advantage in height and reach possessed by Irus, it is more likely that Odysseus saw the blow coming, ducked his head and raised his shoulder to guard the chin and then cross-countered heavily with a hook-hit :

\footnotetext{
11 Jliad, xxiii. 651-699. Acncid, v. 362 484.

12 Fencing, Bowing, Wrestling, pp. 125-131.
 'Epeus made a rush at him,' but 'rose on tipioc,' see below. \(\zeta \hat{\omega} \mu \alpha=\pi \in \rho i \zeta \omega \mu \alpha\), which was
}

\footnotetext{
worn till 15th Olymp. see Paus. i. 44. 1. The

\(14 \times x i i .107 \mathrm{ff}\).
\({ }^{15}\) Argonautict, ii. 67 ft .
\({ }^{16}\) Od. xviii. 4 ; also 50-100.
17 11. iii. 193-4.
}
otherwise it is difficult to understand the tremendous effect of this knock-out, especially as Odysseus purposely refrained from putting forth his full strength. This fight finds a close parallel in the description by Apollonius Rhodius of the fight between Amycus and Polydeuces. \({ }^{18}\) Apollonius it is true often imitates Homer and is here alescribing a combat of the Heroic age, but late writers show no hesitation in ascribing to an earlier period the customs of their own time, so that the account may be regarded as a fairly trustworthy description of a Hellenistic encounter. The fight is much more stubbornly contested than that of the Odyssey, but the opening for the decisive blow is made in just the same fashion and the same knock-out is administered, except that the blow lands above instead of under the ear, probably because the men were more evenly matched in height.

Another account of great interest is the racy and graphic description in the XXII Idyll of Theocritus of the match between Amycus and Polydeuces, which contains all the essential features of a thoroughly sporting fight under recognised rules and familiar conditions.

First the spectators arrive and form a ring, and the principals biud on their thongs over fists and forearms, such as are shown on the Panathenaic vase No. B 607 (M. d. I. x. 48 e, 2) in the British Museum. On entering the ring the two champions at once began to spar for position. He who could so place himself that the light fell in his opponent's eyes would naturally score a great advantage. The round, therefore, opened briskiy and it was only after a hard struggle that Polydeuces gained the coveted place. Amycus, however, determined to turn the tables by a sudden onslanght and made a furious rush, always a risky proceeding against a strong opponent on guard. He received a blow on the jaw, which, had it been better aimed or Amycus less tough, might easily have ended the fight then and there. As it was it merely checked him for the moment, and in a short time he came on harder than before. Then there was much in-fighting and the spectators shouted in their excitement. Polydeuces watched his opportunity and at last knocked Amycus down with a blow between the eyes. This ended the first round, unless we count separately the preliminary struggle for position. There was of course no fixed time limit, but they wait to see if Amycus is capable of continuing the fight within a reasonable time, and after a little while he rises. In the uext round there was some more quick work at close quarters, in the course of which Amyous played on his opponent's body while Polydeuces aimed more at the face. Finally, Amycus, who seems to have done most of the attacking but was having rather the worst of the encounter, tried to finish the fight by a device which would not have been allowed at Olympia. With his own left, that is with his guarding hand, he seized his adversary's guard, pulled it down and delivered a swinging round hit. Polydeuces ducked and countered just below the left temple with a similar blow which Amycus was not quick enough to avoid, and which knocked him out so completely that he was nearly killed. \({ }^{19}\)

\footnotetext{
\({ }^{18}\) Argonuutica, ii. 67 sq\%.
\({ }^{19} \mathrm{Mr}\). R. J. Cholmely in his edition of
}

Theocritus (Clarendon Press) gives a rather different version, and translates \(\breve{\omega \varphi} \varphi\) as 'straight

There is no need to describe the other fights in detail. They all tell the same story: two men take a firm stand and swing blows at each other's heads and flanks armed either with simple thongs or with the cestus. It is strange that the Greeks never learned to rely on straight hitting, for the principles of fist-fighting can be applied equally to fists covered with the thongs they used before Hellenistic times. The reason is probably two-fold :-First they never realised the paramount importance of foot-work. Even Vergil makes Entellus the famous champion miss his footing in a mamer which judged by any standard is absurd. Accurate and quick use of the feet is necessary for the delivery of a really telling straight blow : if both men are standing still round hits are undoubtedly more severe, and it may be worth while to run some risk in order to bring off a knock-out sooner or later. This is in fact often done at the present time. Secondly they spoiled their chances of success in the infancy of the sport by invoking mechanical aid instead of studying its scientific principles; and so to compensate for their lack of skill, they condemned their fighters to wear i \(\mu \dot{\prime} \nu \tau \epsilon \varsigma\), the swaddling clothes of boxing, which prevented its proper growth. The same spirit which evolved the Macedonian phalanx instead of the equally formidable but more mobile legion developed the cestus instead of the knuckle-duster. It took the British pugilist less than a century to find that a boxer should trust mainly to his left for the attack. In this leadoff the left fist is driven straight from the shoulder into the face or body of an opponent by a lunge forward with the left foot and a strong drive from the Hoor with the right leg; the feet whether in advance or retreat must never be crossed or even in a straight line, nor must the right foot ever be in advance of the left. Thus speed both in advancing and retreat is secured, while a firm basis is given against a blow from any quarter: when on guard the weight is distributed evenly on both feet so that it can be thrown in a moment on to one or the other.

Leads may be made with the right and hook-hits can be delivered by either arm as time and occasion require; but the underlying principle must always be observed that the blows travel by the shortest route possible and that especially in long range hits they should be driven home by all the weight of the body and force of leg-drive. At the same time firmness of position as well as speed of movement should be insured by the proper use of the feet. To the last the Greeks seem to have ignored both these facts, to have stood with the feet about level but well apart and then to have swung their bodies round from the hips to give impetus to the blow, often rising on the toes of one foot to increase the swing. This can be judged from their guards as well as from their hits as shown on vases: it agrees with the descriptions of all fights and explains the frequent references in literature to blows on the side of the head and body. Fortunately just where the
from the shoulder, lit. with the weight of his shoulder.' The literal meaning makes excellent sense, while the derived interpretation seems to me to read into the account an entirely modern idea. The very fact that Amyens is considered
to have executed an unsual manœuvre liy advancing his left side instead of standing squarely ( \(\delta 0 \chi \mu \mathrm{ds}\) à \(\pi \dot{d} \pi \rho o \beta o \lambda \eta ̂ s ~ \kappa \lambda \iota \nu \theta \epsilon i s)\) shows how different was the orthodox Greek position from that of the English Ring.
literary evidence is weak, that is to say in the fifth and fourth centuries, the vases are helpful. The number of those which throw any light on the subject is limited: there are far fewer representations of boxing matehes than of almost any other sport, which is strange considering the familiarity of the subject. The best series is in the British Museum. The first is No. B 295, a well-known amphora signed by Nicosthenes and dating from about .20 13.C. Not very much information is to be gained from it; the pose is conventional and the figures are ungainly; however it confirms the foregoing remarks in some important points. First, the impetus is gained not by a lunge but by swinging round from the hips; for in the larger group though the legs are in exactly the same position we see the back of one man and the chest of the other. The legs seem at first sight to indicate a lunge, but this is at variance with the rest of the composition, and Prof. E. A. Gardner considers this treatment to be a convention intended to represent the feet at about the same level but widely separated. Similar stylistic devices may explain why the combatants seem to be on different planes. The left fist and foot of the right-hand man are behind the right of his opponent. To make the scene more realistic the latter is bleeding profuscly at the nose. Both fwear light thongs woven closely round the entire hand but not above the wrist.

Next comes the Panathenaic vase B140, on which one of the combatants is bearded and seems to be pressing the attack. It is difficult to understand the position of the feet unless they are intended to be approximately level: otherwise the elder man has thrust his right foot forward and the younger his left. The elder guards with his left hand, the :fingers of which are extended, while his right arm is raised and bent to deliver a blow. The younger is also guarding with his left and the fist is closed to meet the blow : his right is contracted but lowered and he evidently intends to meet his opponent's attack with au upper-cut. 'The head is drawn back as though getting out of reach, instead of being sunk on one side, another sign of round hitting.2, It is evident that the men are engaged in in-fighting, short arm and contracted blows are the only ones employed and there is no sign of a real lunge, or any attempt to employ the weight of the body or drive of the legs by a step forward. The ípúvtes are of a light description and are indicated merely by lines drawn across the knuckles and wrist. The forearm is scarcely protected at all. To the left of the group is a referee with a large stick, and to the right an ephedros holding his thongs.

We are fortunate in possessing a fine kylix, B. M. Vases E 39, (Pl. XII.) \({ }^{21}\) in the style of Duris (B.C. \(480-450\) ) showing four pairs of boxers. Three of these pairs represent Ephebi actually engaged, and one shows boys preparing for the contest. The same position of the feet is shown in a much more natural and pleasing manner by letting one of the competitors be seen partly from behind. The motive of most of the figures is the same : the left arm extended for guarding, the right contracted for hitting. Here,

\footnotetext{
20 Cf. Aen. v. 427 :
Abduxere retro longe capita ardua ab ictu.
}

Their heads held high are drawn back.
\({ }^{2}\) Wiener Vorlegeblätter viii. 1.
however, the hand is not raised, but the elbow is drawn back in a horizontal line, so that the fist is on a level with the shoulder. At first it seems as though a straight hit were contemplated, but it is more likely to be a truer and less conventional method of showing a round hit, just as the feet are more artistically treated. This impression is strengthened by the position of one figure who is pressing the attack. He has raised his right foot almost off the ground and has swung his right arm back to gain impetus for the blow, thus leaving himself quite expused to a straight hit. The central group is of great interest as it shows a knock-out. The blow landed probably on the jaw or the side of the head, for the man has fallen on his left knee in a position very different from that of one who had been knocked backwards. His opponent has swung his right back to give a final hit, but the vanguished holds up one finger to acknowledge his defeat.

The thongs shown on this kylix reach about a third of the way up the forearm.

Two more fine groups of boxers are shown on B. M. Vases E 78, (Pl. XIII.) a kylix of the best red-figured period, showing various athletic scenes. The first gronp is a good example of a familiar design. One combatant has swong back his right hand and raisel himself on the toes of the right foot, while his left arm is raised and bent to ward off a counter stroke. His opponent, a heavier man whose face seems to have suffered, extends his left and contracts his right for a counter. At the same time he tries to get out of reach not by 'retreating in good order' but by thrusting back his right leg, bending his knee and leaning back, a most dangerous proceeding, should the attack be well followed up. The group seems to show sparring for practice only. The hands are open and the fingers separated. The attacker has thrust both hands forward but is not using the weight of his body. The other is guarding in the manner shown on the last kylix. The thongs in these groups reach about halfway up the forearm.

The large Panathenaic vase in the British Museum (No. B 607, Mon. 1 . I. x. 48 e 2) supplies some valuable evidence as to the form of the cestus and the physical type which were most in favour at the great boxing matches at the end of the fourth century. In both respects there is a close resemblance to the well-known seated bronze boxer of the Museo delle 'I'erme. The men are very powerful and thickset and the gloves are formed of heavy thongs which reach nearly to the clbow. Their tactics seem much the same as those on the previous vases. One is stopping an attack by thrusting out his left arm and at the same time drawing back his head. At first it seems as though he were making a forward lunge in the most approved modern style, but on closer inspection one sees that the left foot is not meant to be stepping forward but to be set apart from the other according to the usual convention; while the fact that instead of throwing the body weight into the blow the boxer is drawing his head and body back shows that defence and not attack is represented.

Another well-known Panathenaic vase ( B 612) shows two boxers on guard wearing \(\mu \in \iota \lambda\) íxal. Both figures have the feet planterl well apart, the
left arm extended with the fingers open, the right fist shat and the arm bent and drawn back and held on a level with the chest. The vase belongs to a late period and the drawing is poor, but it gives a good illustration of a recognised position.

Thus all the evidence shows that the Greek boxers of all periods relied mainly on a swinging blow with the right, and that they never appreciated the smashing force of a quick left lead driven straight from the shoulder, though left-hand blows were sometimes delivered. Some vase-paintings have, however, been considered to show that even if modern methods were mot much in favour with the Greeks they were at least recognised. It is therefore necessary to examine the most important of them. The first (Stephani C.R. 1876, 109) shows a pair of boxers, one of whom has hit his opponent in


Fig. 1.-Fibom a Panituexile Vase, (Stephani, Coli. 1876, 109.)
the face with his left hand. The blow, however, in no way resembles a straight hit: the arm is not straight but 'hooked'; it has not been shot out but it has been swung round or dowa. The tist is not even clenched, only the flat of the hand is used. Again, the forward position of the left leg need not indicate a lunge, for the position of the legs of both combatants is exactly the same. If this be not a mere schematic device it may represent no more than that the feet are planted wide apart. Finally, though a blow has been scored with the left hand, the main attack is just about to be delivered with the right. Clearly, what has happened is this:-Buth men were in the orthodox position with right fists drawn back and ready to strike, and left arms with the hands open extended to guard. Then A swung his right arm back and downwards to deliver a swinging blow, but at the same time left his head unguarded though within range: whereupon \(B\) without even shutting his fist has given him with his left or guarding hand a quick hit in the face
and is about to deal a decisive blow with the right before A can recover from the shock or regain his position.

There are other illustrations also, of denbtful valuc, such as Bemutorf, Gr. U. Sic. V'uscul. xxxi. 2. a, and at kylix of Pamphatus (Mm. d. I. xi. 24). Much more important is a vase in the Louvre


Fig. 2.-From a Pinithenaie Vase. (Leuvre, F 278.) (Fig. 2; Pottier, Vases antiques du Lourre, vol. ii. PI. 82) where it really does seem as if a knockout blow on the jaw had been delivered by a straight left lead. This impression is confirmed if we contrast the position of the falling man with that on the Duris vase quoted above. But from the usual position of the hands it is probable that 'chopping,' or a tendency to strike downwards prevailed even in comparatively straight hitting. 'Thus, though it is clear that the left hand was sometimes used for attack, it is equally clear that the method of using it differed radically from that employed in the English ring. Nothing proves this more conclusively than the way in which on all vases the body both in attack and defence is left exposed to straight hits. Contrast slich positions with popular prints of prize-fighters on guard, or with the illustrations in any good book on boxing, and the difference will be seen at once. It is natural that hits should be given with the left as well as the right, when an opportunity occurs; but if the pride of the English ring, the straight left, is to be made really effective it must dominate the whole scheme both of attack and defence. It can be confidently stated that this was never the case with the Greeks.

The foregoing sketch shows that the evidence of the vases agrees with the literary tradition so closely that although some questions of procedure remain doubtful yet the main features of a boxing match at Olympia in classical times can be reproduced with tolerable certainty. Let us endeavour then to picture the probable course of such a contest in the fifth century.

According to Dr. C. Robert \({ }^{202}\) the boxing came in the middle of the third day, that is to say exactly in the middle of the whole festival, and when we remember that the severer contests were held in the middle of the day with the express purpose of increasing the distress we may well wonder at the fortitude of the Greek athletes. Even for spectators the noonday sun at Olympia in July is a trying ordeal, while the languor caused by the heat in the valley of the Alpheus seems to preclude the possibility of such violent exertion. Especially would this be the case in boxing, which Homer truly calls \(\dot{d} \lambda \epsilon \gamma \epsilon \iota \nu \eta\) ', 'causing distress,' a word which probably implies not so much the pain from the blows as that distress which causes the loss of most fights not decided by a knock-out. However, the competitors had passed through nine months of training on the spot and represented the survival of the

\footnotetext{
\({ }_{22}\) Loc. cit. Diagram of the events.
}

J. H. 8. VOL. XXVI. (1906). PL. XII.


IN THE BRITISH MUSEUM (E 39).


RED-FIGURED KYLIX


IN THE BRITISH MUSEUM (E 78).
fittest. When the pairs and byes had been decided by lot, the first pair entered the arena. We have no evidence that the size of the ring was defined exactly and there were certainly no ropes: thus some of the most familiar devices of the English ring such as cornering and slipping, which are due to the presence of a barrier, would be unknown. It seems rather that the science of advancing and retreating had not been encouraged and that the combatants were expected to stand their ground as far as was possible. Each was accompanied by his second, either a relative or a professional, whose first duty was to bind the \(i \mu\) ávtes round the fist and forearm but leaving the thumb free. \({ }^{23}\) Apparently the seconds, contrary to modern custom, were allowed to advise the principals during the actual progress of the struggle as well as between the rounds. \({ }^{24}\) This is shown by the well-known tale of Glaucus the Carystian, one of the most redoubtable athletes of antiquity. When a boy he re-set a ploughshare which had becone loose, using his fist as a hammer, whereupon his father, admiring his strength and hardihood, entered him at Olympia for the boys' boxing match. Then, when he was being hard pressed in the fight by his more skilful opponent, his father (who was, we may suppose, acting as his second) shouted ' \(\mathfrak{\omega} \pi a \hat{\imath}, \tau \grave{\eta} \nu \dot{a} \pi\) ' á oót \(\rho o v^{\prime}\), whereat with a mighty effort Glaucus felled his antagonist. It is interesting to note that this same Glaucus was one of the few who won at Olympia both as boys and men. He was also a \(\pi \epsilon \rho \iota o \delta o \nu i \kappa \eta s\) having won at Isthmian, Pythian, and Nemean games as well. When the two competitors entered the ring there was no preliminary hand-shake; indeed, there seems to have been little of that mutual goodwill which forms an important part of what we call sporting feeling. On the contrary it was much more in accordance with Greek traditions to advance \(\delta \in \iota \nu o ̀ \nu ~ \delta \epsilon \rho \kappa о ́ \mu \epsilon \nu о \iota-l o o k i n g ~\) daggers and meaning mischief-though it is most unlikely that they wasted their breath in the murderous boasts of Epic heroes. The first struggle was to obtain a good position, \({ }^{25}\) which seems to show that there was not much idea of working round, although it is not necessary to suppose that a position once taken was rigidly adhered to throughout the contest. Then, when the men had determined their respective places, a firm stand against round hits was secured by planting the feet well apart and nearly on a level, with the body square so as to lead off with either hand after the manuer of the earliest school of English boxing. The Greeks, however, differed from the worthies in the days of the early Georges by employing mainly round and not straight hits. The natural corollary is that they relied chiefly on a knock-out with the swinging right.

After the preliminary manœuvring for position and sparring for an

\footnotetext{
\({ }^{23}\) Schol. Plato, Rep. i. 338 c , d àvtíxeip oủ

\({ }^{24}\) Schol. to Pind. Ol. xi. 19, p. 243 в \(\lambda \in\) ' \(^{\prime} \varepsilon t\) o己̂v \(\tau \grave{\eta} \nu\) ' \(\mathrm{H} \rho a \kappa \lambda\) tous \(\tau \rho \circ \pi \grave{\eta} \nu\) єis \(\pi \alpha \rho a \mu \nu \theta i \alpha \nu\) ' \(\mathrm{A} \gamma \eta\) -



H.S.-VOI. XXV].
}

\({ }^{25}\) Aristid. xiii. ; Panath. 160, quoted by





opening the work would begin in earnest, and terrible work it would be. Classifications according to weight would have been foreign to Greek ideas: a man came to Olympia to win the all-comers championship or nothing, and so the boxers were mostly heavy-weights. When two heavy-weights armed with i \(\mu a ́ \nu \tau \epsilon \varsigma\) box in the manner indicated, a slogging match of the most barbarous description almost necessarily follows. On the other hand wrestling, which played so important a part in the P.R., was not allowed, neither was clinching; \({ }^{26}\) such devices were reserved for the pankration. The bout might be ended very quickly then as now by a knock-out from a lucky hit ; but as a slow slogging hit is much more easily guarded than a straight drive, and as Greek athletes appear to have been capable of taking much punishment, the fights must often have been longdrawn. Glaucus, of whom mention has been made already, was especially famous for his skill in \(\chi\) tı oovouia and was represented on guard in his statue which Pausanias saw. In a protracted battle the length of the rounds was determined much in the same manner as in our own P.R., that is to say, either by one of the combatants being knocked down, or by a lull in the fray occasioned by the simultaneous exhaustion of both. \({ }^{27}\) The fight was to a tinish, \({ }^{28}\) and if not decided by a knock-out was ended by one of the combatants raising his finger in acknowledgment of defeat. \({ }^{29}\) If a draw seemed otherwise inevitable it sometimes happened that an exchange of free hits would be agreed upon, a practice which must have given the first striker a great advantage. \({ }^{30}\)

Throughout the meeting order was maintained, the rules enforced, and the awards made by the Hellanodikai How far they tried to keep silence does not appear, but apparently the spectators shouted when they became unusually excited, \({ }^{31}\) which must have embarrassed the seconds. If a modern pugilist could witness a fight of this description he would condemn the style of the Greeks on the ground that they wholly failed to recognise the two great principles on which the whole science of boxing rests :- good footwork and straight hitting. There is no reason to doubt that the Greek boxers exhibited all the quickness of resource and power of endurance essential to the fighting man, or that they had reduced to a fine art the delicate operations of timing, countering, and getting out of reach.

They were also fully aware of the importance of utilising the weight of the body to increase the force of the blow ; but their style of hitting must have been comparatively slow, like a sabre compared with a foil, and it is difficult to believe that any Greek could have stood up for long against a first-rate modern prize-fighter if both wore the \(i \mu a ́ \nu \tau \epsilon s\) that were used in the fifth century. It is to be regretted that the Greeks made the \(i \mu \dot{\prime} \nu \tau \epsilon \epsilon\) more

\footnotetext{
 oi \(\beta_{\rho \alpha \beta \epsilon u \tau a l} \sigma \nu \mu \pi \lambda\) éкє \(\sigma \theta \alpha\), Plutarch, Synp. ii. 4.
\({ }^{27}\) Ap. Rhod. ii. \(86 \sigma \tau d \nu \tau \epsilon \delta_{\epsilon} \beta a i o ̀ \nu \alpha \pi \omega \theta \epsilon \nu\).
28 סıaтиктєúєt, Paus. vi. 10. 1.
\({ }^{29}\) Plut. Lycurgus, c. 19 zv ols \(\chi\) elp dyateívetat.
\({ }^{30}\) See Krause, p. 522, cf. Pausanias, viii.
}
40. 3.
\({ }^{31}\) Plutarch, De profect. in virt. c. 8. At the Isthmian games Aeschylus remarked to Ion that while the spectators cried out whenever a blow was struck, the man who received the blow was silent.
and more severe. Fist-fighting is a noble art and it secures a decisive result without (as a rule) permanent injury to either combatant. But boxing with loaded gloves is spurious sport, in which those only would engage who made it their trade for the pleasure of a brutal populace. A sport which unfits one for everything else defeats its own object and justifies the attacks made on its devotees by Euripides \({ }^{32}\) and Kipling. Both these authors, however, seem to have attacked the gentlemen athletes in a manner which has called forth considerable protest. It is likely enough that when actually in training the athletes, just as rowing men are fit for little except the river when training, were \(\dot{v} \pi \nu \omega \dot{\delta} \epsilon \iota\), and easily upset, but it does not follow that even in the fourth or third century the competitors as a class devoted themselves to athletics exclusively, although a certain proportion would naturally do so. On the other hand under modern conditions all the competitors at Olympia would be considered professionals. It is true that the wreath of olive or bay had no intrinsic value, but we are apt to forget the substantial prizes that fell to the victor's lot as well. Thus Solon decreed that 500 drachmae should be paid to each Olympic victor, \({ }^{33}\) and further that he should be maintained for life at the Prytaneum, roughly equivalent to giving a University Blue the perpetual right of dining at the High 'Table of his college : a very valuable privilege if he were to live all his life in Oxford or Cambridge as the Athenian would in Athens. Moreover the competitors at Olympia were necessarily the few who had already fought before their way to the top of their profession, from local athletic meetings upwards, and at these provincial competitions prizes of value were offered. Even Heracles says quite naturally in Alcestis that he competed for the prize because it was ảkıov aóvov. This being the case it is strange that Greek athletics suffered so little from the professional spirit and that gentlemen competed throughout the best period.

Perhaps the chief reason was that the honour of winning at Olympia outweighed any wther inducement that could be offered, and this would be a more powerful safeguard against collusion than the vigilance of the judges. For although they had always a keen eye for material gain yet the spirit and environment of the Greeks in their own social intercourse and especially in regard to athletics resembled that of our own Public Schools and Universities more closely than any other institutions ancient or modern.

It must be acknowledged that the generosity and courtesy which we consider essential to sport were often lacking, especially in the treatment of the vanquished. But the fact remains that the Olympic festival retained its reputation for fair play for centuries, in spite of professionalism on the one hand and slavery on the other. No stronger proof could be given of the honour and vitality of Greek athletics.

\author{
K. T. Frost.
}

32 как \(\omega \nu\) रdे \(\rho \ddot{\nu} \nu \tau \omega \nu\) к.т. 入. Athen. х. 413. Tho parallel between this and Kipling's tirate against flannelled fools is very close : one might almost be a free translation of the other.
\({ }^{33}\) Also 100 drachmae to a winner at the Isthmian and other games. Plutarch, Solon, c. 23. Krause, op. cit. ii. p. 765.

\section*{A NOTE ON THE CACUS VASE OF THE ASHMOLEAN MUSEUM (J.H.S. XIII. 70).}

In this Journal in 1893 I published a very interesting amphora discovered by Mr. Arthur Evans in a tomb at Gela in Sicily, \({ }^{1}\) which I described as shewing on one side Cacus dragging the oxen of Geryon backward into a cattle-sherl, while a satyr above plays the flutes, and on the other side Herakles singing to the lyre. This vase has been subjected to a

critical study by Dr. E. Pernice, \({ }^{2}\) who has found some interesting facts which I had not noted when I published the vase. I must begin by heartily congratulating him on his keenness of eye and his ingenuity. But at the same time I must express my regret that Dr. Pernice did not, before

\footnotetext{
\({ }^{1}\) Ashmolean Cataloguc, No. 211, P1. I. A.
\({ }^{2}\) Jahrb. 1906, 1. 45.
}
publishing his paper, commission me or some other colleague to re-examine the vase itself. Owing to this omission, the inferences which Dr. Pernice has drawn from his observation are almost entirely misleading.

The fact which Dr. Pernice has observed is that the two legs which I supposed to be those of Cacus (see the cut, repeated from J.H.S. 1893, p. 71) are really quite different one from the other. One wears a high boot, the thigh is bare, and a chiton appears below the waist with a sword in a sheath hanging by it; the other is draped down to the ankle, and does not look like a male leg at all. By comparison with an Attic lekythos at Berlin \({ }^{3}\) which represents the Judgment of Paris, Dr. Pernice tries to shew that the two legs belong originally the one to Hermes, the other to Paris, in the scheme which represents Hermes seizing Paris to prevent him from modestly trying to escape from the honour forced upon him. In fact, they do closely correspond with the two limbs in question in the vase-painting cited. When, however, Dr. Pernice goes on to find the end of the herald's staff of Hermes in a curious knot among the horns of the oxen, he is mistaken. Mr. Anderson's drawing of the Cacus vase is, I need scarcely say, excellent; but it is not perfect, and a close examination shews that he has been led into a slight inaccuracy by a break on the surface. The horns of the oxen are oxen's horns and nothing else.

The view of Dr. Pernice is that the painter of the lekythos had in the first instance painted on his vase a group of Hermes struggling with Paris, but he thinks the satyr also belongs to the original scheme; and he combines satyr and struggling group on p. 50 into a design which he confesses to be almost unintelligible, but which he supposes to have some relation to early scenic representations at Athens.

The supposed caduceus I have already stated to be an imagination. And as this group of Hermes and Paris is allowed by all who have discussed the Berlin vase-von Duhn, Furtwängler, Miss Harrison, and Pernice himself-to be nothing but a slavish copy of a group of Peleus * seizing Thetis, the latter subject, if any, would be part of the original design of the vase, and Dr. Pernice's heading Ein Paris-Urtheil turns out to have no justification. But on my carefully examining the vase in company with Mr. Arthur Evans, it appears that nothing beyond the two legs of the supposed group was ever painted upon the vase at all. There is no sign whatever of repainting, no trace of any figures in silhouette beneath the surface of the cattle-shed. In fact, what we see in the painting of the vase is exactly what from the first the painter meant us to see. His composition is curious, but nothing like so curious as the restoration of Dr. Pernice would be.

A very simple explanation of the vase-painting suggests itself. The vase painter, who had no imagination, but was of a very imitative turn

\footnotetext{
\({ }^{3}\) Figured in the Jahrb. 1906, also in Arch. Zcit. 1883, Pl. XI. Cf. Furtwingler, Cat.
* The sword in particular is conclusive eviVases Berlin, No. 2005.
}
of mind, was set to paint a subject new to him, and did not know how to proceed. He had recourse to the barest eclecticism from subjects familiar to him. The cattle-shed he copied from an altar, the reclining satyr from a silenus lying on the back of an ass. Needing two human legs, he took them from the group of Peleus seizing Thetis. For the oxen he had no prototype at hand, so he composed them;-and a very poor business he has made of them :

I do not feel sure that the painting is intended to represent the adventure of Cacus, and in fact I have always had doubts on that head. But Dr. Pernice's observations do not detract anything from the probability that this is the meaning, nor has he any other suggestion to offer as to a possible interpretation. A shed with the heads of cattle protruding from it at one end, and two human legs protruding at the other, what else can this mean? Possibly the theft of Apollo's cattle by Hermes might be suggested ; but Hermes was an infant at the time, and then Herakles is depicted on the other side of the vase. On the whole, until some better suggestion is made, I stand by my interpretation. The satyr seems to shew some relation to a satyric play, or a comic rendering of myth. Our vase - and there I agree with Dr. Pernice-is more probably Attic than Sicilian ; but it was found in Sicily, and was very probably made for a Sicilian. The date of a vase so conventional is not easy to fix, but it would probably be the sixth rather than the fifth century. This is rather too early for Epicharmus, but not for the kind of comedy in which he excelled.
P. Gardner.

\section*{AN ATTIC GRAVE LEKY'THOS.}

\author{
[Plate XIV.]
}

Pevtelic marble. Total height, 113 cm . Height of body, 96 cm . Of figured space, \(\dot{x} \boldsymbol{i} \mathrm{~cm}\). Circumference round the bottom of figured space, 116.5 cm .

The upper part of the neck and the whole of the handle are missing.
This beautiful marble grave lekythos, which I have received kind permission to publish from Dr. Kastriotis and M. Stais, is now in the National Museum of Athens (No. 2584). It was discovered in the year 1904 in the house of Spiliotis near the \(\sigma \phi a \gamma \epsilon i a\) on the left bank of the Ilisos.

The vase itself is considerably broken, and the surface of the marble is unfortunately a good deal damaged, but in spite of this, at the first glance, one is struck by the beauty of the whole composition of the relief which covers more than half of the body of the lekythos. This relief is interesting also for its subject matter, which, as far as I am aware, has no exact parallel ; a somewhat unusual fact, for on the whole there is not very much variation in the scenes and motives represented on the Greek grave reliefs.

A technical point to be noticed is that the figures are not, as is generally the case on these lekythoi, just in slightly raised relief from the surface, but the whole relief is set back in a frame-work, so to speak, the feet of the figures resting on the lower rim, so that the whole makes a very pleasing finished effect. \({ }^{1}\) We must imagine the addition of colour, of which no traces are now visible, but which we know was considerably used to carry out details and as a finish to works in relief as well as to sculpture in the round, both in the early and later periods of Greek art. The hair of the figures was almost certainly coloured, and in all probability the garments also and the shoes. Some of the Attic grave reliefs are of special importance owing to the fact that they are among the few original works preserved to us in which traces of this colouring are still actually visible. Take, for example, the stele of Aristonautes ; \({ }^{2}\) in this we still see faint signs of red inside the shield, blue on the background and green on the shoulder clasp of the mantle. Also a small stele Ath. Nat. Mus. No. 892, \({ }^{3}\) in which distinct traces of red are to be observed on the hair of the little girl.

\footnotetext{
\({ }^{1}\) Other marble lekythoi with a similar technique are No. 810 Ath. Nat. Mus. ; Conze, Altische Grab-Reliefs, Taf. cexiii. No. 1059; also Conze, No. 294, T'af. Ixx.
\({ }^{9}\) Ath. Nat. Mus. 738 Karvadias, and Conze, 1151.
\({ }^{3}\) Conze, 840 , and cf. Alh. Millh. 1885, p. 240, note 1.
}

To return to the lekythos, we see that the lower part of the neck is decorated with a painted design, and remains of the graceful palmette pattern carried out in dark red are still visible. It is possible that the base was ornamented in the same way. We must now study the human figures and the scene depicted in this relief. There are four persons represented. The left hand figure is that of an elderly bearded man (Plate XIV., Fig. 1), turning towards the right, that is towards the centre. He is clad in a chiton, and over this is a mantle covering only the lower limbs, and this seems to have been held in place on the left side by the staff on which the man is leaning. His legs are crossed and there is no doubt from the position of the right hand that it was holding the staff, which must, however, have been carried out in colom, as there is now no trace of it visible. He scems to have a narrow fillet round the head. He is resting his chin on bis left hand, an attitude which we find constantly occurring on grave reliefs, and which is probably expressive of grief. The corresponding figure on the right is that of a woman (Plate XIV., Fig. 3), also turning towards the centre, and in the same attitude as the man; she is resting her chin on the right hand. She has a long chiton and over this a kind of mantle which falls in folds down the left side from the left shoulder, but leaving the right shoulder free is taken under the right arm and passes in folds across the waist ; the end hangs over the left arm, which is held against the side, the hand resting flat on the folds in front. The woman's hair is cut almost short, reaching not quite to the nape of the neek.

A figure which shows many points of resemblance to the one in question is that of Mynno. \({ }^{4}\) This latter stele belongs without doubt to the same period as the lekythos, and there is so much similarity between these two figures, that we might almost attribute them to the same artist. For instance, the hair is very similarly treated to that of Mynno, being, like it, cut short and without a parting. There is resemblance, too, in the expression and in the shape of the faces. The garments also have points in commonnotice for instance the treatment of the small folds of the chiton round the neck in front, and the way in which the stuff clings to the body, shewing the outlines of the breasts very distinctly.

Turning now to the two central figures of the group, we cannot but be struck by the grace with which they are represented as well as by the simple charm of the little scene enacted. On the left stands a youth, hardly past the age of boyhood, the body shewing but slight muscular development. The upper part of the body is nude, and round his lower limbs is a mantle reaching almost to the ankles; it is caught up on the left, and he seems to be holding it against his side with the fingers of his right hand, in the palm of which sits a little hare, which he is grasping by the ears with the left hand. On the right, turning towards the centre, towards the youth, is a younger woman, evidently of an age about corresponding to his. Her garments are exactly similar to those of the other woman standing

\footnotetext{
* Berlin Catalogue, No. 737, and Furtwängler, Coll. Sabouroff, Bd. i. T'af. «ix.
}

behind her, whom I have already described. There is a difference, however, in the way in which the younger woman's hair is dressed ; it is not cut short, but gathered up into a knot at the back, where it is held in place by a broad band which passes round the head and is divided in front into three narrower bands, one of which rests on the forehead, the others on the hair which is shewn in between them. This seems to have been a very usual fashion for younger women. Compare for example the stele of Hegeso, \({ }^{5}\) where the hair is very similarly treated, though a little more elaborate.

The two central figures of the lekythos seem to be advancing towards each other, for each has one foot drawn back behind the other, with the heel off the ground. The girl's right hand is slightly extended, perhaps with the intention of taking the hare from the youth. Between the two is a stool, one of the ordinary diphroi-a very usual piece of household furniture which answered the purpose either of a seat or a table. Sce, for instance, the seats of the gods on the Parthenon Frieze, and numerous examples of painted vases where the diphros is represented either as table or seat (see especially on the white-ground grave lekythoi).

We now come to the interpretation of the whole scene represented. It is doubtless capable of several explanations, but the one I would suggest as the most likely is the following. The two figures in the centre are probably brother and sister, both having died young, perhaps at the same time, and the two persons on either side are the father and mother, mourning their dead children. On many of these marble lekythoi, \({ }^{6}\) as on other grave stelai, we find the names of the persons inscribed above them or beside them, but here we have no such identification. It is very usual on grave stelai to find the survivors who erected the monument themselves portrayed, as well as those in whose memory it was put up. It may be considered that the woman on the right is more likely intended to be a servant or slave, owing to the fact that her hair is short (a style very customary for servants) ; but we know that women frequently cut their hair as a sign of mourning, \({ }^{7}\) and probably this explanation holds good in this case, that the mother is represented with short hair, as significant of grief. Difference in age between women is seldom, if ever, represented on these grave reliefs, so the fact that here there is no distinction of the kind need be no reason against accepting the theory that the woman on the right is the mother probably of both the youth and the girl; and there can be little doubt that the elderly man is the father.

The hare which the youth is holding needs some explanation. It is clear from other reliefs as well as from various vase-paintings that a hare was one of the favourite and most usual pets and playthings of the Greek youths, and was evidently almost as much of a domestic animal as the dog or the cat. On several grave reliefs erected to the memory of a youth, we find him

\footnotetext{
\({ }^{6}\) Conze, Bd. i. No. 68. 'Taf. xxx. and and many others. Brunn-Bruckmann, Denkmäler, No. 436.
\({ }^{6}\) Cf. for example, Ath. Nat. Mus. No. 1064, Lekythos of Metrodora, Philia, Mys and Meles,
and many others.
\({ }^{7}\) See Furtwängler, Coll. Saboutroff, stele of Mymno, Taf, xix. and Text.
}
represented with a hare, evidently as one of his favourite playthings. For instance in the Athens National Museum \({ }^{8}\) is a youth leaning against a small pillar on which sits a hare. Also in the Athens National Museum the stele of Telesias. \({ }^{9}\) We find a hare constantly depicted cu vases on which are painted scenes from the palaestra. For example, an amphora, \({ }^{10}\) on one side of which is a youth, evidently a victorious athlete: attached to his wrist hangs a hare. Also a red-figured kylix, \({ }^{11}\) showing a scene in the palaestra, where one group is composed of an elderly man handing a hare to one of the young athletes.

On the other hand we know that the hare was one of the symbols of love, and one of the animals sacred to Aphrodite, \({ }^{12}\) and in this way connected with Eros. \({ }^{13}\) There is a relief \({ }^{14}\) in the Villa Albani, representing Aphrodite throned, while under the throne crouches a hare. 'I'he animal under the throne of Aphrodite on the coins of Nagidus is however not a hare, as it has been called, but a mouse or rat. \({ }^{15}\).

In vase-paintings the hare is constantly given as an attribute of Eros. For example the well-known vase \({ }^{26}\) in the British Museum : on one side we have Odysseus and the Sirens, on the other side are three Erotes, one carrying a hare. Also in the British Museum is a lekythos on which Eros is represented hovering over an altar, holding a hare in both hands. There are many other instances, which it would take too much space to mention. I merely quote these examples proving the connexion of the hare with Eros, as this fact makes another explanation of the scene we are studying possible, although I think not preferable to the une already suggested. The two central figures might be regarded as being intended to represent two persons either betrothed or perhaps lately married-the young lover or husband has died and is depicted as handing over a symbol of his love to her from whom he has been parted.

It is possible that the girl is not going to take the hare from the youth but that she also held some object in her right hand-a flower or bird perhaps, which, having been carried out in colour, is now no longer visible; but, judging from the attitude and general demeanour of the two, the other theory seems the more likely one, and we probably have the brother and sister represented as they were in their lifetime with the plaything they had enjoyed in common.

Before considering the question of date there is one other interesting point to notice about this lekythos. We have already observed that there are no names inscribed as is very often the case, but on the lower part of the

\footnotetext{
\({ }^{8}\) Kavvadias, No. 794, and Conze, ii. \({ }^{2}\) Taf. clexxvi.
\({ }^{3}\) Kavvadias, No. 898, and Conze, ii. \({ }^{2}\), Taf. ceviii.
\({ }^{10}\) Gerhard, Griechische Vasenbilder, Bd. ii. J'af. celxxv.
\({ }_{11}\) Gerhard, Bd. ii. Taf. celxxviii.
\({ }^{12}\) See Furtwängler in Roscher's Lexikon, Bd.
\({ }^{13}\) Furtwängler, Eros in der Vasenmulerei pp. 14 and 15.
\({ }_{14}\) Mïller.Wieseler Denkmäler alter Kunst, Bd. ii. Taf. 24, note 257.
\({ }^{15}\) Ibid. note \(258^{a}\); see B. M. Coins, Lycaonia, etc. py. xliii., and 113.
\({ }^{16}\) Mon. d. I. i. 8 and B. M. Vases, iii. No. 440.
}
neck are two words inscribed, still quite legible. These words are OPO乏 MNHMATOE which translated literally must mean 'the boundary or boundary stone of the monument,' in this case of the tomb. It is curious to find this inseription \({ }^{17}\) occurring on one of the actual grave monuments, and, as far as I am aware at present, this is the only instance of its use in this way. Only one explanation of this seems possible and in order to find it we must consider briefly the known facts concerning the graves and burial grounds of the Greeks. We know both from excavations and from literary sources \({ }^{18}\) that from very early times it was the custom, especially in Attica, for the members of one family to be buried together in one piece of ground, and a monument, in early times a tumulus, then later stelai, statues, etc., was erected. In many parts of the country there are also rock-cut graves which evidently must have served the same purpose. These family graves were enclosed by a wall, and traces of these walls are still visible in different places, especially in Brauron and Vari. \({ }^{19}\)
- Until the law of Solon was passed forbidding the custom, people were buried within the towns; the possessors of a plot of land would probably use part of it as a family burial place. \({ }^{20}\) After Solon's time the graves were outside the city walls, generally along the sides of a much used highway, as for instance along the Sacred Way leading from Athens to Eleusis. The families rich enough to do so would buy a piece of ground, usually make a slightly raised terrace surrounded by a wall, and within this space set up a monument or more than one to the memory of the different members of the family. \({ }^{21}\) Traces of these walls may still be seen in the Dipylon at Athens ; for instance part of the polygonal wall in the shape of a half-circle is still standing round the monument of Dexileos which was part of a family tomb. There is no doubt that these tombs were often very plentifully and richly decorated : stelai with or without a relief, lekythoi and loutrophoroi, as well as life-size statues or a group in an aedicula-all these different forms of monument were possible, and probably sometimes within one enclosed space there may have been an example of each; even the slaves of the family were also sometimes represented as mourning their masters. \({ }^{22}\) So we must suppose that our lekythos was also a monument belouging to one of the large family tombs either in Atheus itself or in some other place in Attica, and for some reason which we cannot definitely explain the words ö oos \(\mu \nu \eta \dot{\mu} a \tau o s\) were engraver on it to mark the boundary of the particular tomb to which it belonged. Perhaps this family tomb was not surrounded by a wall as was usual, and so in order to keep it distinct from the next grave, these words were engraved on the lekythos which stood at the edge, instead of on an ordinary boundary stone which we should expect to find used for the purpose.

\footnotetext{
\({ }^{17}\) For the latest list of such inseriptions see Tillyard, in B.N.A. xi. pp. 67 f .
\({ }^{18}\) E.g. Demosthenes, Eubulid. 28 and 57.
\({ }^{19}\) See Furtwaingler, Introd, to Collection Sahouroff, p. 29.
\({ }^{20}\) See Becker's Charikles, iii. Excurs zur 9len
Scene.
\({ }^{21}\) See E. Curtius, Geschichte der Stadt Athen, p. 204.
\({ }^{22}\) See Furtwängler, Coll. Sabouroff, 'Text and Plates, 15, 16, and 17.
}

In conclusion-a few words as to the date of the work, a question which it is not difficult to decide. The relief is in every respect characteristic of the latter half of the fifth century B.C., of the school of Pheidias, and has many traits in common with the Parthenon Frieze as well as with other grave reliefs belonging to this period. For each figure on the lekythos we can find a counterpart in the Parthenon Frieze: to the women with their garments clinging almost as if damp to the body, we need but compare the seated goddesses or the maidens carrying the stools on the east frieze. On the same side we find an elderly man, a citizen leaning on his staff, and beside him a youth, both of whom distinctly recall the father and son of the lekythos, and indeed, throughout the whole frieze, there are numerous figures which afford a comparison to these two.

We have already instanced the relief of Mynno as belonging to the same period; another grave relief, although of much bigger dimensions, which shows very similar workmanship is in the National Museum, Athens; \({ }^{23}\) there is great similarity in the way the persons are standing, in the folds of the garments, and especially in the not very skilful treatment of the hands and eyes. M. Kavvadias ascribes this relief to the middle of the fifth century, and I should be inclined to date the lekythos a little later, probably nearer the time of the Parthenon Frieze.

I may add that these marble lekythoi seem to have been a favourite form of monument at this time, for on examination I think we find that nearly all these lekythoi found in the various museums date from this period-the middle to the end of the fifth century, before the beautiful aedicula-shaped monuments, which have come down to us as beautiful examples of original work of the great art of the fourth century in Greece, came into vogue.

Silvia M. Welsh.

\footnotetext{
\({ }^{2} 3\) Kavvadias, No. 716 ; Conze, Bd. i. 'lif. Ixix. No. 293.
}

\section*{SOME SCULPTURES AT TURIN}

\author{
[Plates XV.-XVII.]
}

During a visit to Turin last autumn to photograph the so-called 'Diadumenos,' which is here published, I believe for the first time, I took the opportunity to photograph one or two other works which seemed to be interesting. 'The photographs of these are published with the 'Diadumenos' in this paper. The discussions added to the descriptions of them are not intended to be complete, nor are they, I fear, perfect. My excuse is my desire to make interesting sculptures accessible to those better fitted to criticize them. In preparing this paper I have received much kind help from Dr. Amelung, who has most generously placed at my disposal many of his notes, especially as regards the list of replicas of the Praxitelean Athena, which is entirely his own.
1. Young male head of athlete. \({ }^{1}\) ( \(\mathrm{Pl} . \mathrm{XV}\).). H. ' 285 m ., depth of head \(\cdot 24 \mathrm{~m}\)., distance between corners of eyes 125 m ., length of face 195 m ., of mouth 06 m . Greek marble. Restorations: tip of nose ; lips, chin, right cheek and brow, and hair are all damaged.

The head is turned a little to its right, and looks downwards. Over the brow is a slightly swelling bar. The lines of the eyes and mouth are firm and hard. The cheeks are also very hard in modelling. The long, loose curls, whith fall over the forehead, are carefully parted in the centre. The loose ends of the hair are worked with the drill. The hair in general is in long, thin strands curling tight at the ends. At the back the hair is braided each side into two plaits which are taken round the head on either side, and cross one another in front above the parting. The ends pass along to above the ears where they are then tucked under, and hang down over each ear.

From the drilling of the hair, and the incised treatment of its lines, the surfaces of eyes, mouth and cheeks, this head is clearly a copy of a Greek bronze original.

\footnotetext{
\({ }^{1}\) Duitschke, 52 (he wrongly calls the head female); Furtwängler, Mcisteruerke, p. 448. Id. Masterpicces, P. 247 (he calls it male, hut
misunderstands the hair and says the head is a Diadumenos); Amelung, Rcv. Arch. 1904, ii. P. 344, 1 .
}

As regards the style and the date of the original it is nut easy to form an opinion. In connexion with it Furtwängler suggests the name of Cresilas, thus dating it to the third quarter of the fifth century. Amelung denies its relation to Cresilas and says it is a good example of the mixture of Attic and Polycleitan art towards the end of the fifth century. These two views, though apparently conflicting, both depend on the same idea, the mixture of Attic and Polycleitan art in the later fifth century. This is clearly stated by Amelung, and is the essential theory that underlies Furtwängler's conception of Cresilas' artistic career. He says \({ }^{2}\) Cresilas was a Cretan artist, who was first attracted to the brilliant Athens, and later, on the outbreak of the Peloponnesian War, migrated to Argos. Thus the essential point of these two opinions is the same, that in this head we find a union of the Attic and Argive styles of the later fifth century.

A brief examination of some of the details of the head will show how far this idea is correct. The first noticeable point is the careful parting of the hair over the centre of the forehead. This occurs in the Doryphoros and Diadumenos, and in all the other works attributed to the Polycleitan school. In the free plastic handling of the hair it resembles the Diadumenos rather than the Doryphoros, and therefore shows the influence of the later rather than the earlier Polycleitan style. The parting of the hair, the mass of locks over the ears, and the plaits wound round the head find analogies in statues assigned to the Attic school. The Choiseul-Gouffier Apollo and the charioteer of the Palazzo dei Conservatori \({ }^{3}\) both show this to some extent. These features recur in the Cassel \({ }^{4}\) Apollo and the Apollo of the Museo delle Terme. \({ }^{5}\) A somewhat similar rendering of the hair is seen in the young male head or the double herm at Madrid, which Furtwängler calls an Eros after Pheidias, \({ }^{6}\) and in the heads, which are buth the same, of a double herm in the Barracco collection. \({ }^{7}\) We can thus see that both Attic and Argive influerces are present in the Turin head. The arrangement of the hair in the double plait, whether it be the krobylos or not, is Attic, \({ }^{8}\) as are also the thick masses of curls over the ears. The extremely careful parting and the free plastic rendering of the hair, which, though handled as a mass, yet shews each inlividual lock very clearly, are Polycleitan. The rough surface of the plastic locks finris its parallel in the hair of the Diadumenos \({ }^{9}\) rather than in the smoother style of the Doryphoros. Again in the square, solid outline, the head is very similar to the Diadumenos. But the heavy jaw, the decided lines of brows, nose, and mouth have no relation to the soft beauty of the Polycleitan work. The face is strong and vigorous: the texture is hard, but well rendered to indicate firm flesh over a strong backing of bone. This is not Argive in character, but shows all the qualities of Attic art which are noticeable in the later metopes of the Parthenon.

\footnotetext{
2. Masterpicces, pp. 116, 243.
\({ }^{3}\). Bull. Com. 1888, P1. XV., XV1., Helbig², 615.
\({ }^{4}\) Furtwüngler, Masterpieces, p. 192, Fig. 80.
\({ }^{5}\) Id. Ibid. p. 50, Fig. 8.
}

\footnotetext{
\({ }^{6}\) Id. ibid. p. 67, Fig. 20.
\({ }^{7}\) Helbig, Coll. Barracco, Pl. XXXV., XXXVa,
\({ }^{8} v\). Schreiber, Ath. Mitth. 1883 , p. 246 seqq.; Studniczka, Jahrbuch, 1896, p. 246 seqq.
\({ }^{9}\) Cf. Furtwängler, op. cit. Pl. XI.
}

Thus there seems to be rather more of Attic than Polycleitan in this head, and we may attribute it to an Attic artist who fell under Argive influence and who flourished in the last quarter of the fifth century. It was just about that period that the various local styles were becoming merged to produce the fine Greek style of the fourth century. No sculptor can be mentioned as the probable artist of this head: nor can a name be given to it. We only know that it is male, and may be an athlete or an Apollo.
2. ,Torso of Athena. \({ }^{10}\) (Pl. XVII. 1) H. 1.25 m. Coarse grained white marble (Parian ?). Head, right fore-arm, and left foot are broken off. The right shoulder is reset.

The goddess stands on her right leg. The left leg, which is slightly drawn back, is free. The left arm is bent, and the hand rests on the hips. She is clad in a long chiton, a himation which is passed over the left shoulder and wrapped tightly round the body. The aegis is worn crooked, inclining to the left side.

In execution and style, this is a very good copy of a well-known type of Athena. It is inpossible to date the copy, but it is early, rather than late. The drapery, though worked with the drill to some extent, is well and naturally handled. The Gorgoneion on the aegis, which is, as far as can be seen, of the pathetic Hellenistic type, has probably been modified by the copyist.

This Athena type, of which the Turin statue is a replica, has been attributed by Amelung \({ }^{11}\) to the Praxitelean school. The best example is the famous bronze in the Museo Archeologico at Florence. \({ }^{12}\) The full list of replicas is as follows:-
A. Castle Howard, Michaelis, Ancient Murbles, p. 326, 4; ReinachClarac, p. 229, 6 .
B. Rome, Palazzo Giustiniani, Gall. Giustiniani, Pl. V. ; Reinach-Clarac, p. 232, 5.
C. St. Petersburg, Hermitage, Kieseritzky, Katolog. No. 155 ; ReinachClarac, p. 235, 7.
D. Oxford, Reinach-Clarac, p. 236, 1.
E. Ince-Blundell Hall, Michaelis, Ancient Marbles, p. 338, 8 ; ReinachClarac, p. 237, 4.
F. Oxford, Ashmolean Museum, Michaelis, op. cit., p. 546, 20; ReinachClarac, p. 238, 4.
G. Rome, Coll. Pamphili ; Reinach-Clarac, p. 291, 6.
H. Rome, Palatine, fragment (breast and left arm) in substructures of palace of Septimius Severus; Matz-Duhn, 628.
I. Rome, Forum by Shrine of Juturna, found in 1900 by Temple of Castor and Pollux ; Not. d. Scavi, 1901, p. 114, Fig. 73 ; Röm. Mitth. 1902, p. 80 .

\footnotetext{
\({ }^{10}\) Dütschke, 53.
\({ }^{11}\) Basis des Pruritcles, 1. 16 seqq.
\({ }^{12}\) Amelung, Fiuhrer d. d. Ant. in Fiorcnz, 248.
}
K. Fermo, found in theatre in 1853, lower part of body, Ann. Inst. 1858, p. 134, Pl. I, 1 ; Reinach, Répert. ii., p. 679, 7.
L. Benevento, headless statue; Not. d. Scavi, 1904, p. 111, Fig. 4, p. 112 above, p. 128, No. 2.
M. Rome, lower part of good replica seen by Dr. Amelung in the hands of the dealer Sangiorgi in 1905.
N. Paris, École des Beaux Arts, statuette, neck to knees, head and arms were set in ; Reinach, Répert, ii. p. 292, 8.
O. Turin (the present replica).

The most noticeable point is that the marble replicas differ from the bronze in wearing the aegis obliquely across the breast, while in the bronze it is worn evenly and in the centre. On the general grounds of style the type may be assigned to the fourth century. From its resemblance to one of the Muses on the Praxitelean basis from Mantinea it is attributed to the Praxitelean school. It is not, however, an absolutely original work. The origin of the type is to be seen in the Athena Campana, \({ }^{13}\) which is a copy of a fifth-century work. A certain element of eclecticism is introduced, and the type seems thus rather academic than inspired. Also it has a bronze character, and the original was probably bronze. This is perhaps strange for a Praxitelean work. But, though marmore felicior ideo et clarior fuit, fecit tamen ex aere pulcherrima opera. The number of replicas and the excellent style incline us to assign it to a good school, and to consider it a wellknown work. The circumstantial evidence is in favour of its Praxitelean origin, yet there are the above plausible reasons against it. It may thus be attributed to a follower of the Praxitelean school, perhaps to one who came under the master's influence rather than to a direct pupil.
3. Youthful male Torso. (PI. XVII. 3) H. \(1 \cdot 26 \mathrm{~m}\). Greek marble. The head, both arms from shoulders, and the right leg from the knee are lost. The left shin is badly damaged, and there is a deep cut (modern) in the right side of the stomach. Farther the drapery on the left side has been broken away, and that on the right badly damaged. Part of the neck is left, and has been reset.

The right leg seems to have been almost entirely free. The left leg rests on the toes and ball of the foot, and forms the main support of the figure. The head looked upwards to its left. The right arm was dropped and the left raised. Over the shoulders is a chlamys, which flies out behind, and hangs down in moving, wavy folds. The body is very flatly rendered ; all the muscles are slurred, and blended together. Little or no detail is distinguishable. The anatomy of the body is merely hinted at ; and the bones are entirely masked by the soft flesh. The body is long and narrow ; and the chest is not very broad. The pose, however, is graceful, and well treated. In comparison with the poor execution of the body, the drapery is

\footnotetext{
\({ }^{13}\) Now in St. Pctersburg ; Amelung, op. cit. p. 18, Fig. 4.
}

FIFTH CENTURY MALE HEAD AT TURIN.

LYSIPPEAN HEAD AT TURIN.

excellently handled. The texture is very well indicated, and the folds and movements are well rendered. Since the drapery is so good, and since the figure is supported at the back by a tree-trunk, we may readily assume that the statue is a copy of a bronze. The position of the figure and the movement of the limbs all indicate that it is rising up into the air. This immediately suggests the Ganymede of the Vatican, \({ }^{1+}\) attributed to Leochares. There is some similarity in movement between them, but the position of the limbs is not the same. So it is impossible for the two figures to be derived from the same archetype, and the Turin figure cannot be a Ganymede since the eagle is lacking. \({ }^{15}\)

Stylistically the Turin statue may be assigned to the later fourth century. The excellent working of the drapery, the graceful movement, the solt rendering of the slight form, all favour this date. The slurring of detail in the muscles of the body and limbs is probably due to an unskilful copyist. There dues not seem to be any similar figure yet known and consequently it is at present only possible to suggest rather than definitely determine its place in the history of Greek art.

The nearest parallel to the treatment of the torso is the Apollo Belvedere. There is in both the same rhythmical handling of the limbs, and the same gliding motion. We have already compared the attitude of the Turin figure to the Ganymede, and thus the three fall together into one group. But Amelung, \({ }^{16}\) the latest to examine the Apollo Belvedere closely, believes that it has nothing to do with the Ganymede, whose artistic descent as regards the head he traces from the 'Turin head discussed above. \({ }^{17}\) Perhaps an even closer parallel to the Turin figure is to be seen in a dancing Satyr at Naples, which has been assigned by Furtwïngler to Leochares \({ }^{18}\) because of its likeness to the Ganymede. In both the borly is slim and graceful, the limbs have a gliding motion, and the whole figure rises into the air. Consequently we should probably follow Amelung in separating the Apollo Belvedere from the Ganymede, and group with the latter the Naples Satyr, as already done by Furtwängler, and this Turin figure.
4. Head of athlete. \({ }^{19}\) (Pl. XVI.) H. 27 m .; depth of head \(\cdot 20 \mathrm{~m}\).; distance between outside corners of eyes \(\cdot 10\), from chin to forehead \(\cdot 175 \mathrm{~m}\). Greek marble. The top of the nose is restored. The head, which is very square, was turned up to its left.

The eyes are deep set, rather under the brow, which is well modelled, flattening out at the ends, but is heavy and Heshy. The mouth is short, and the lips drawn in a little and very firm. The jaw is square; the chin is dimpled, and prominent. The hair is in short, grained locks brushed flat a little along the forehead, and in disorder over the rest of the head. There are
\({ }^{14}\) Helbig', 387.
\({ }^{15}\) It might possibly be a dancing figure: if so it cannot be a dancing satyr since the torso is not satyric in character.
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\footnotetext{
\({ }^{16}\) Rev. Arch. 1904, ii. p. 325 seqq.
\({ }^{17}\) Op. cit. p. 334 ; \(\imath\). above p. 236.
\({ }^{18}\) Satyr aus Pergamm, p. 14, PI. III. 2.
\({ }^{19}\) Duitschke, 151.
}
short whiskers before the ears; and the bar above the brow is strongly marked. The work is fresh and clean, and has every appearance of being either a second-rate original, or else a fair copy of a good marble original.

This head, though it in some respects resembles the Apoxyomenos, is far more developed in style, especially as regards the hair. The nearest parallel is perhaps the head of the so-called "Jason" or athlete fastening his sandal."0 To this, as represented by the Fagan head in the British Museum, \({ }^{21}\) it has considerable likeness. This type shows the Lysippean style of the Apoxyomenos more developed, but not so far developed as the Borghese warrior. Thus between the two extremes of the Apoxyomenos and the Borghese warrior we may place the "Jason" and the 'lurin head. The latest date is more or less fixed, since it is almost universally agreed that Agasias, the artist of the Borghese warrior, flourished at the end of the second and begimning of the first century b.c. If we follow the usual view and regard the Apoxyomenos as Lysippean, the Turin head would be dated to the later third century. On the other hand, if we, with Percy Gardner, \({ }^{, 2}\) believe the Apoxyomenos to be post-Lysippean, the date for the head under consideration would be the first half of the second century. \({ }^{23}\)
5. Statuette of priestess of Isis. (Pl. XVII. 2) H. 40 m . Greck marble. The left forearm and the whole right arm are broken off; and the whole figure is badly weathered. The back is unworked.

The priestess rests on her right leg, the left leg being free. She wears sandals; and is clad in the usual long robe peculiar to the cult of Isis. This seems to consist of a wide sheet-like robe wrapped round the body so that the two upper are crossed at the back and drawn forward over the shoulders to the breast. There they are knotted together in connexion with the upper edge of the robe, which is drawn up to meet them. But it is not clear how the two ends are knotted together with the edge. In this case the end over the left shoulder has slipped free, and leaves the left breast bare. The left arm is raised ; perhaps it held a sistrum. The head is thrown back and the eyes are closed, as though in intoxication or religious frenzy. The smooth grained hair is parted in the centre, bound by a fillet, and hangs down all round in corkscrew curls. In the centre of the fillet is a hole, probably for the attachment of the badge of Isis. The cheeks are fat, and the eyes very deeply set, but so softly rendered as to lose all definite form. The treatment of the small mouth is similar. The figure is well built, well modelled, and in a natural pose; and on the whole the statuette is a dainty and life-like work.

\footnotetext{
\({ }^{20}\) Michaelis, Ancient Marblcs, p. 464, 85, illustrated.
\({ }^{21}\) A. H. Smith, Cat. iii. 1785, other replicas : head and torso, Athens, Acropolis Museum, Ath. Mitth. 1886, II. IX., 1, E.-V. 733, 734 ; head, Jacobsen Coll. 1081 a ; torso only, Louvre, Brum-Bruckmann 67 ; Munich, Furwaingler,
}

\section*{Katalog, 287.}

22 J.H.S. 1905, 1. 234 scqq.
\({ }^{2} 3\) To the same enroup we can probably assign two athlete statues in Berlin, Beschreibung al. (tnt. Slulp. 469, 471; v. Amelung, Röm. Mithh. 1905, p. 148, figs. 5-7.

The Egyptian type and the Greek rendering of the statuette immediately suggest an Alexaudrian origin, since it bears no relation to the usual Roman statuettes of Isis and her priestesses. There is a small class of somewhat similar Graeco-Egyptian statuettes that has been discussed by Amelung. \({ }^{24}\) 'There are a Hermaphodite at Florence, \({ }^{25}\) a priestess at InceBlundell Hall, \({ }^{26}\) and another priestess formerly at Catajo. \({ }^{27}\) This group is noticeable for the fine modelling of the figures and the natural treatment of the drapery. The fine folds of the thin garments cling round the body, emphasizing its beautiful forms, and, falling naturally to the ground, add a delicate grace to the statuettes. The three statuettes also show morbideza in the treatment of face and nude portions. But in none of them is the morbidezac so marked as in the Turin figure. In it the modelling of the face, especially the eyes, is so soft that no decided lines are visible, and there is thus no definite division between individual features in the face.

As also definitely Graeco-Egyptian in character, and therefore Alexandrian in style, Amelung has grouped four heads, a female bust in the Uffizi, \({ }^{28}\) a head formerly in a dealer's hands in Rome, \({ }^{29}\) a basalt head at Vienna, \({ }^{30}\) and a less important head in Berlin. \({ }^{31}\) To these we may add one of the two heads in the Magazzino Archeologico just published by him, the head of an Egyptian princess wearing a cap made of a vulture's skin. \({ }^{32}\) These five all seem to show an Egyptian character in a Greek rendering, like the statuettes; still they do not possess the morbidezza so noticeable in the latter. But a large number of small heads and statuettes of Egyptian provenance possess this soft character. \({ }^{33}\) Yet we must not assume, especially since several of the Graeco-Egyptian works do not show it at all, that this morbidezza is the essential and distinguishing characteristic of Alexandrian art. On the contrary, it seems, as I have elsewhere tried to show, \({ }^{34}\) to have been a feature common to all Greek art of the later third century B.c. It is, as Amelung \({ }^{35}\) says, derived from the Praxitelean style, and we find it not only in these Alexandrian works, but in sculpture from other parts of the Greek world. The best example is the famous female head from Pergamum \({ }^{36}\); we find it also present in the Artemis from Tralles at Vienna, \({ }^{37}\) the Aphrodite at

\footnotetext{
\({ }^{24}\) Bull. Com. 1897, p. 110 seqq.
©s Uffizi, Sala delle Iserizioni, Diitschke, 275.
\({ }^{2}\) Furtwängler, Statuen-kopicen, p. 33, 34, Pl. V. ; Michaelis, Ancient Marbles, No. 24.
\({ }^{27}\) E.-V. 57, Amelung, op. cit. p. 122, 1; similar figure Vatican, Mus. Chi. 65t; Amelung, Vat. Mus Cat. Pl. 81.
:8 Amelung, Führer d. d. Ant. i. Florchz, 157 ; replicas Louvre, Clarac, 1074, 3474, No. 62 ; Aındt, Porträts, 219, 220 ; Rome, Pal. Giustiniani, Bull. Com. 1904, Ml. III.
\({ }^{29}\) E. \(-V .179,180\).
\({ }^{30}\) von Schneiler, Album d. Ant. S'ammlung,
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11. XIII.
\({ }^{31}\) Beschreibnng d. ant. Skiulp. 331 ; Arndt, Porträts, 217, 218.
\({ }^{32}\) Bull. Com. 1897, Pl. VIII. ; Helbig \({ }^{2}, 735\).
\({ }^{33}\) E.g. those referred to by Amelung, Bull.
Com. loc. cit. ; cf. Botti, Muséc d'Alčandric,
i. \(23,30,31,33,34,36-39\), xiv. \(9,12,14\).
\({ }^{34}\) Brit. School Annual, ix. p. 236 seqq.
\({ }^{3} \mathrm{~J}\) Bull. Com. 1897, p. 138.
\({ }^{*}\) Collignon, Prrgame, p. 204; cf. the Dionysus publishel by 「amell, J.II.S. 1890 p. 187.
az von Sohneider, op. ci!. Pl. YI.
}

Olympia, \({ }^{30}\) the Warren head from Chios, \({ }^{39}\) and to some extent in the Aphrodite from Tralles at Smyrna. \({ }^{40}\)

And so, though we may assign the Turin statuette from its character as a priestess of Isis to the Alexandrian school and date it from the later third century, it should be remembered that its style, the tendency to softness which it illustrates so well, \({ }^{41}\) was common to all Greek art of that period.

Alan J. B. Wace.

\footnotetext{
:3 olympia, iii. M1. LIV.
: Burlington Fine Arts Club, Cut. Er Hib. Grak Ail, PI. XXXII.
}
4) Furtwängler, Masterpicces", p. 397, Fig. 174; E.- \({ }^{\top} .1342,1343\).
\({ }^{41}\) Cf. Pfuhl, Röm. Mitth. 1904, p. 1 seqq.

\section*{THE MIDDLE MINOAN POTTERY OF KNOSSOS.}

\author{
[Plates VII.-XI.]
}

In the sketch of the pottery of Knossos that appeared in the Journenl of Hellenic Studics for 1903, pp. 157-205, it was sought to give a general account of Knossian ceramic development on the basis of such finds as were to hand up to date.

Since then, however, further evidence has been accumulating such as serves to bring into clearer outline particular phases in development. This happens to be specially true of the Middle Period. The object, accordingly, of the present paper, which I undertake by kind permission of Dr. Arthur Evans, is to examine the new ceramic materials in so far as they are illustrative of the successive phases of Middle Minoan ceramic development.

The results of a special examination of the pottery found in Early Minoan deposit up to date are to the effect that the two kinds of ground, respectively light and dark, coexist from the very beginning of the use of paint in Cretan ceramics. \({ }^{1}\) Thus it can no longer be a question of the one kind of ground supervening upon the other at any later stage but only the problem of the relation to each other, throughout the course of their collateral development, of two kinds of background which co-exist from the beginning and so co-exist in virtue of a technical principle which is as old as any decorative art. This principle is that any kind of design is itself possible only through a difference in shade between the design and its background. The design, whatever its colour, must appear lighter than its background or darker. And given a certain set of media the difference of dark or light in the background conditions the difference of light or dark in the design. Decoration with one kind of ground may come into greater prominence at certain periods than that with the other, but as a matter of design in its widest aspects both kinds of ground will always be found in course of time to emerge into co-existent use to some degree, because the architectonic alternation of light and dark grounds is a primary necessity in the development of decorative art.

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। see B.S.A. x. 21, 22, 26.
}

From this point of view the Early Minoan Age may be regarded as the era of the genesis of colour-technique itself and the two kinds of design emerge alongside of each other and develop into their simplest difference from each other, as monochrome design respectively on a light and on a dark ground. The time of fusion which marks the first transition to polychrome effects of style has not yet come and there is as yet no true synthesis of light on dark with dark on light such as later formed the true achievement of Minoan decorative art. When we come to the great days of the Middle Period we see that the highest decorative synthesis is one in which light and dark grounds alternate regularly with each other.

Before we enter at all on any discussion of Middle Minoan Ceramics we must bear steadily in mind one result of a careful examination of Early Minoan wares, which is to the following effect:-There is no difference of style corresponding to the difference between light and dark grounds, for the style of ornament in any given phase of development is the same whether on a light or on a dark ground.

This primary unity of style which is indifferently of the same simple geometric character, whether it develops in the medium of light or of dark grounds, is a traditional survival into the Middle Period on which every later phase of development is founded.
1. In the early part of the Middle Minoan Age the elements of ornament are found to be still largely derived from the repertory of the previous era, and like these they are prevailingly geometric in character. Alongside of these, however, other clements begin to emerge which are indicative of a new tendency, that towards curvilinear variation in the designs. This double fact of partial identity with and difference from the prevailing manner of the earlier period as a whole becomes clear at once if we glance at Pl. VII. The fragments were found in the Basement with Monolithic Pillars, B.S.A. ix. 18, Fig. 7, in the same deposit in which in 1900 was found the Dove-Vase, J.H.S. xxi. 79, Fig. 1, which accordingly also belongs to the early part of the Middle Minoan Age. The deposit underlay the floor-deposits with fine polychrome ware, to which belong the fragments in J.H.S. xxiii. Pl. VII., as also the fine cup, il. Pl. VI. \(4 .{ }^{2}\)

Here many of the fragments present hardly more than adaptations of a geometric repertory that itself goes back to Neolithic times, and has survived continuously throughout the Early Minoan Age. In this connexion fragments \(1-\) and \(14-16\) are particularly instructive. There is not a combination here that does not repeat well-known Neolithic motives; for example, the sets of parallel bands forming zigzag angles in No. 1, the triangles filled out with white in imitation of Neolithic white-filled punctuations in Nos. 3 and 4.

It is important to note that next to the dull cream-white the colour that most prevails in these early polychrome fragments is a red pigment that varies between vermilion and terracotta, and which is itself an element in

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\({ }^{2}\) Our Pls. VII. and VIII., like Pls. V., VI., VII. in J.H.S. xxiii., are after drawings by Mr. Halvor Bagge.
}
colour-design that is seen already, if sparingly, in use in the Neolithic Age. In the Early Minoan Period it is seen as a rare variant for white in light-ondark design in deposits of the same ern as that of Hagios Onouphrios. Fragment 2 shows us this rel combined in one scheme with white in a geometric design that is itself of Neolithic origin. The geometric motives in the same colour in 3,4 , and 5 are equally primitive in manner and in origin. The orange variants in \(7,8,11,12-15,17,18\), with their growing tendency towards a purer yellow are later in origin than the primitive reds with which they are seen here in contemporaneous use. The earlier elements in the colour repertory are not superseded by their later variants and rivals, but tend to survive alongside of these. And the variants derive their interest in the design from the differences of tone they introduce in colour-schemes whose polychrome character is essentially the outcome of a natural combination of later with earlier elements of colour. When once a colour has come into use it tends to survive in all combinations in which it has ever formed an element. The elements only die out with the disintegration of the polychrome combinations themselves of which they have formed a part, and this itself is but an organic process in which the process of the integration of the colourelements is reversed.

In the process of combination of later with earlier elements of colour with which we have here to do, it is curious to note that the elements of geometric design that preserve the earlier Neolithic traditions are apt to survive in their original colours. Thus, for example, the simple Neolithic motive of fragment 1 , the dotted triangular fields of fragments 3 and 4 , and the lattices of fragments \(4,7,11\) are all elements from the Neolithic repertory that have survived continuously in their original white. The early motives in red and black present us with a similar story of survival. Thus red next to white tends to reproduce in their original character the greatest number of motives from the Neolithic repertory of ornament as seen, for example, in the red parts of fragments 3 and 4. Black-glaze design in its original genesis has involved a transformation, in its development of light grounds, which tends to reproduce the geometric elements of ornament in a guise which is more frankly Early Minoan. In this case, even when the motives themselves are actually Neolithic, the treatment of them tends towards a freedom in which the rigidity of Neolithic tradition is seen in process of gradual disintegration through translation into media which, in their colour-effect of dark design on a light ground, were a transformation into the opposites of what they were in Neolithic technique.

The beginnings of curvilinear design, as compared with the geometric tradition, represent a recent element which is entirely lacking in the Neolithic Era, and which so far has only been observed in Early Minoan deposit of the maturest period. In the beginnings of the Middle Minoan Period the use of simple curvilinear motives appears already to have become traditional, though in strict subordination to the still dominant geometric style. Among these curvilinear motives the wavy bands in dull creamwhite, in fragments 5 and 19 , form a very carly element in design, and there
are analogies for it in the pottery of Egypt of the prehistoric age.3 The cable chain of fragment 20 appears advanced in comparison, and yet it occurs on geometric pottery from Gournia belonging to the close of the Early Minoan Age.

From the point of view of polychrome development, however, in its relation to traditional survival the most interesting fragments are Nos. 17 and 18 from the neck and shoulder of jug-vases of the same shape as those from Knossos in the B.S.A. ix. 95 Fig. 65, \(p\), and 97 Fig. 66, \(b, d, f, q\). The decoration on the neck is the same for our fragments and for the vases, that is, sets of parallel rim- and neck-bands in a lustrous brown-to-black glaze on a highly polished buff clay slip on terracotta red clay, hand-made. But, instead of the plain dark-on-light 'butterfly' motive on the body of the vases, our fragments have the elaborate light-on-dark polychrome geometric design illustrated in the plate. \({ }^{4}\) Another similar fragment from Knossos, PI. IX. 6, shows for the body a conservative style of light-on-dark polychrome geometric decoration with a traditional survival of time-honoured Neolithic and Early Minoan motives closely approaching that on fragments 3 and 4 . At first sight it might seem as if the vases represented by the fragments with the polychrome design on the body must necessarily be later in date than the plain vases with the simple dark-on-light 'butterfly' motive and that our fragments represented the process by which light-on-dark polychrome design gradually displaced the simple dark-on-light. That this is not so becomes clear on consideration of the fragments shown in Pl. IX. \(1-5\), which are from the same deposit as the fragments on Pl. VII. The second fragment here is the neck and shoulder of a vase with 'butterfly' motive dark-on-light which in its lustrous brown-to-black glaze, polished buff clay slip, and terracotta clay, is exactly similar to the polychrome fragments. With the Dove-Vase again came out the interesting fragment of a jug with polychrome body of PI. IX. 6 referred to above as of one class with PI. VII. 17, 18. It was only in 1903, however, on complete excavation of the Basement with Monolithic Pillars, with the discovery of the floor-deposit with the ware of PI. VII. underlying a later floor with fine polychrome M. M. II. pottery, that the true context to which belongs the ware of PI. VII. was realized. Then also the complete similarity between PI. VII, 17, 18 and PI. IX. 6 made it clear that this fragment and with it the Dove-Vase from the trial-pit of 1900 really belonged to the same deposit and so to the same M. M. I. context as the ware on PI. VII. The vases represented by our fragments as well as the Dove-Vase are, however, besides so similar in clay, glaze, and general technique, as to have been probably from the

The suiral repeated as a unit hut not as a
dhain also occurs in the pehistoric pottery of
Egypt and it is possible that it is fom here it
drifted into the Aegean. It recurs in the early
geometrie potery of lalakastro and Gouruia.
The chain of connected spirals occurs apparently
tirst in the A"gean at some time carly in the

Middle Minom Age.
+ The M. M. 1. 'buttertly' motive itself' is the direct ilescemlant of the hatehed triandes in jairs joinel at the apex so common in the previous Thirl Eariy Minoan Period. Ser B.S.A. .. 198 and 199. Fig. 2. t. i.
same workshop, if not by the same hand. And this again would only show that the same potter worked simultaneously in light and in dark grounds.

The interesting and curious set of fragments fitted together as No, 3 on Pl. IX. belonging to a jug like No. 2 but larger, from the same deposit and probably also from the same workshop, with similar lustrous dark glaze design on a polished buff clay slip and clay, may of itself serve to show how p.opular was the light-ground style at the period to which the dark-ground polychrome fragments on Pl. VII. belong, and how far we are from any teal transition from the one style to the other. The subject of the design in its naturalistic character is so alvanced that were it not for the company in which the fragments occur we should be tempted to assign it to a much later age. To the right appear the heads (in one case the upper part of the body as well) of three Cretan wild goats with curving homs moving in profile to the right." Behind them also moving to the right is a curious beetle-like creature with tail. The figures of the groats are in silhouette with incised outlines filled in entirely with lustrons black glaze in a manner that recurs in the black-figured style of archaic Greek vase-painting. The 'bectle' is paintel in a very free mamer withont outlines. The glaze, the polished buff elay slip and the clay are exactly like those of the polychrome fragments which combine a dark with a light ground. The painted hatched bands of the two fitted lid-fiagments of No. 4 in matt cream-white on a brown glazy surface and the incised hatched bands of fragment 1 seem at first sight much too primitive for such company as \(\mathrm{N} o .{ }_{3}\) with the (retan goats. Yet there is no doubt that they belong to the same context, though on the other hand each of them in a different medium preserves into this period a favourite Early Minoan design which itself has its origin in the Neolithic Age. The survival of such carly elements alongside of new factors in the development of design is very characteristic; and fragment 1 has above and apparently also below the incised band a double pair of parallel bands with a meander band between them, in the dull-coloured early matt cream-white, which is a new combination. Here again, if we take fragments 1 and 4 together, we have an illustration of the law already referred to, that the elements of design that preserve the earlier traditions tend to survive in the earlier media. In the Neolithic Age the white pigment is never found disjoined from the incision. This process of disintegration and separation takes place in the Early Minoan Age. But the separated elements do not die ont. In accordance with the organic law of survival, each of the elements gets a new lease of life on its own account in a new enviromment. In the early pait of the Middle Minoan Age the examples in 'guestion show us such separated elements still surviving each on its own accomt, and entering into ever new combinations in which each again, in accordance with the primitive law of organic survival,

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5 ('omplare the seal innpression, lis. A. ix. 20 , Fig. 9, for a wild goat with somewhat similar eurving horns. Our earlier pieture has
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alrealy in common with the original seal the profile movement to the right which is so popusliar in Minnan Art.
}
continues in the tendency to preserve its own identity in the midst of all the growing diversity of a polychrome age. \({ }^{6}\) The white lattices of Pl. VII. 4, 7, 11 furnish a striking illustration of this tendency.

The principal shapes presupposed by the fragments on Pl. VII. can best be understood by reference to PI. IX. 6-15. Here the two-handled spouted jugs 13, 14, illustrate the shapes presupposed by the fragments \(1-7,9,10\) on Pl. VII. The cups \(9-12\) on PI. IX. give the general shape presupposed by the fragments \(11-16\) though the latter are of much finer quality. Spout 6 with a light ground presupposes a vase with a polychrome body and dark ground like the fragments 17 and 18 on Pl. VII. The shape of vase presupposed by all these spouts is figured in B.S.A. ix. 95, Fig. 65̆, p, Fig. \(66, b, d, k, f, q\).

The vases shown in Pl. 1X. 6-15, which are from the same deposit as the fragments on PI. VII., once more illustrate the general phenomenon, on which we have been insisting, of the complete parallelism in time of light and dark grounds in the Middle as in the Early Minoan Age. Vase 14 here has a dark ground, but vase 13 , of similar shape and in precisely similar glaze and clay, has light-on-dark panel bands all on a light ground. This panel arrangement of vase 13 with the light ground dominant is as near a synthesis of alternating light and dark grounds as we ever come to at this early stage of the Middle Minoan Age. The light neek with dark polychrome body presupposed by fragment 1 on the same plate is not a synthesis but a compromise. The fragmentary cup 7 from the same basket looks distinctly advanced for the context in which it occurs. It is decorated with crescents arranged in horizontal rows alteruating cream-white and vermilion-red, all on a very lustrous black glaze slip on terracota-red clay, which is handmadc. The crescent design is the same as that of the cups, J.H.S. xxiii. 176, Fig. :3, 1-3. But whereas the crescents in the case of these cups, in accordance with their later character, seem to have been stamped, the crescents on our cup betray certain irregularities in the design which show that they were painted on by hand. The combination of vermilion and white is also an early characteristic.

One of the outstanding features of Middle Minoan ceramics is the large use made of relief-work of different kinds to enhance the richness of the grounds in polychrome decoration through the added play of light and shadow. It is accordingly only an accident that on Pl. VII. we have only one specimen representing this tendency, fragment No. 13. This is part of the rim of a cup probably with a foot, like fragment 16 . The cup, which is hand-made, has two parallel orange rim-bands on a lustrous purple-black glaze slip forming a broad rim-band on the inside of the cup on finely sifted dull buff clay. Below the orange rim-bands appears a series of serrated ridges going obliquely up right in very fine buff clay paste which has been laid on over the glaze. From the North Quarter of the City comes a two-handled

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\({ }^{6}\) The pyxis found along with the jugs with 'hutterfly' motive shown in I'.S.A. ix. Fig. 65, \(b\) athonds the curions spectacle of a survival into
this period of the original Neolithic white-filled incisions alongside and independently of their differentiated elements.
}
spouted hole-mouthed jug, which is of great importance in this connexion on account of the context in which it occurred. This vase has its shoulder decorated with an elaborate system of parallel ridges going obliquely down left, then right, then left again on the fine buff surface of the clay. The ridged zone has going along it at intervals groups of three parallel bands going down left then right in herring-bone fashion, in a thin purplebrown semi-Justrous glaze like that which covers the rest of the vase inside and out. \({ }^{7}\) This jug belongs to the same company as the very characteristic series of vases shown in Pl . X. In this connexion has to be mentioned the rich deposit of vases with blistered surfaces 'à la barbotine' found by the Italians at Hagia Triada in the chambers of a building just outside and above an important tholos-tomb with Early Minoan remains. \({ }^{\text {s }}\) These vases like the building in which they were found are later than the tholos and its vases, while their special affinities show them to belong to the same early part of the Middle Minoan Period to which we have assigned the series of vases shown in PI. X. from the North Quarter of the City at Knossos. Thus item 7 here represents a vase which in type and geveral style of decoration comes very close to the vases of the barbotine style referred to. The sets of oblique parallel panel bands are common to our vase and to many of the barbotine vases of Hagia Triada. On the Early Minoan prototypes of these vases, the panel bands in question are arranged vertically as in B.S.A. x. 201, Fig. 3, \(b\). The relief-decoration of our vase in the form of knobs is, however, much simpler than the blistered surfaces of the Hagia Triada vases, and the knobs indeed survive into a period when the barbotine style itself was no longer in vogue. This fact of survival comes out very clearly when we find the same motive so copiously used on the characteristic knobbed pithoi of the Third Middle Minoan Period both from Knossos and from Phaestos. \({ }^{9}\) In this connexion Pl. X. vase 1 , is of special interest. This jug shows us the knobs combined with the 'trickle' motive in the First Middle Minoan Period in a manner which is intrinsically the same as that illustrated by the knobbed pithoi which themselves again belong to the end of the Middle Minoan Era. The large white dots of items 5 and 7 recur alternately with red and black ones on the blistered ware of Hagia Triada and both in white and more rarely in red and black represent a favourite motive in the Second Middle Minoan Era. The rope band in incised relief of items 3 and 4 is a very favourite collar motive in the early part of the Middle Minoan Age, but it does not seem to have had any later history,

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7 Mon. Ant. xiv. 699, Fig. 9 shows the fragment of a vase in the same barbotine style as our Pl. VII, 13 and the vase from the North Quarter of the City at kinossos referred to above. The rippled appearance of this particular style suggests an earlier phase in the process of development, which later became stereotyped in the painted rippled surfaces of M. M. III. and L. M. I.
\({ }^{s}\) For this tholos-tomb see Mcmoric del \(r\).
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Istituto Lombardo, xxi. 248-252. The tholosvases, Tav. ix. Figs. 21, 22. The barbotine vases, Tay. vii. Fig. 16. Compare also for Kinossos the two cups with blistered surfaces in J.H.S. xxiii. 167, Fig. 1, items 5, 6, which appear in a similar M. M. I. context.
\({ }^{9}\) See B.S.A. x. \(10-12\), Fig. 3 ; XI. 218, note 2 ; Acm. Ist. Lomb. loc. (it. Tav, xi. Fig. 29.
while in origin it can have had no real connexion with the elaborate ropedecoration of the knobbed pithoi of a later time just referred to. The vases of Pl. X. illustrate very well the altemation of light and dark grounds so characteristic of the Middle Period as a whole.

The survival into this era of the tradition of incision apart from its earlier white filling is in itself a very interesting phenomenon, and reference has already been made to the tendency of such surviving elements to persevere in their own identity in the midst of all the change and diversification of phenomena which are so characteristic of the Middle Minoan Age. The extreme of the tendency of such separated elements of decoration to preserve their own identity is well represented, so far as the technique of incision is concemed, by the one-handled jug shown in Pl. X. 8, which has no other ornament than the systems of hatched incised bands on the brown-red surface of the clay. The context to which the vase belongs is shown not only by the characteristics of its companions in the second and third rows below it, but by the recurrence of such knobbed specimens as Nos. ! and 10 next it, which again are but common variants of the knobbed vases of Pl. X. 1, 7. The vases of Pl. X are all from the same North Quarter of the City.

On Pl. XI. 1-20 are represented vases and fragments of vases found (1905) on an important floor of a house to west of the Palace belonging to the same early part of the Middle Minoan Period as the floor-deposit to which belong the fragments on Pl. VII. Adjacent on the north side was a house with the rich deposits of M. M. II. ware illustrated in the Report, B.今.. I. x. Fig. 4. This M. M. II. house had cut into the area occupied by the earlier house, obliterating its deposits yet without touching the parts outside its limits to the sonth occupied by the vases of PI. XI. 1-20. Several of the types from the Hoor-deposit of the Basement with Monolithic Pillars recur here and do not call for special remark. The 'fruit-stand ' vase, dark-on-light, No. 12, is, however, a new shape for this period at Knossos, and is interesting ats representing in an intermediate phase of development the prototype of the tall fruit-stand vases which are so frequent in the immediately following era (M. M. II.). \({ }^{10}\) The undulating band which finishes the decoration of the bowl below is frequent, both light and dark, in the Middle Period and recurs as the base-decoration of many vases of the Palace Style in the Late Minoan Age.

Decoratively the most interesting vase from the deposit is the handsome jug Pl. XI. I, which is reproduced in colour in B.S.A. xi. PI. I. This jug is essentially of the same type as those with the 'butterfly' motive and their polychrome variants though considerably larger in size. The elaborate polychrome design is concentrated on the upper half and particularly on the shoulder of the vase. \({ }^{11}\) Just below the middle is a broad band in

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\({ }^{11}\) See Hogarth-W' elch, J.H.S. xxi. 87, 1. 88, Figs. 15,16 ; B.S.A. ix. 308, Fig. 8.
\({ }^{11}\) It is possible now to conjecture that this was prolablyalso the case with the polychrome
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vases just cited in comparison which are presupposed by the curious fragments shown in Pl. VII. 17, 18 and Pl. IX. 6.
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madder-red bordered above and below by a narrow band in matt creamwhite. Below this again half-way towards the base a very broad band is 'reserved' in the pale buff' ground of the clay. Above and again below the main design is a rather wide vermilion band. On the neek is a collarband in madder-red bordered above and below by a narrow matt cream-white band. Above this, on neck and rim respectively, is repeated the vermilion band motive of the body of the vase. On the spout is a band in matt cream-white. The top of the handle las narrow oblique bands in matt cream-white, going up right, in imitation of a twisted basket handle. On the shoulder as fundamental element in the main design is a zigzag series of double axe-like figures with the contour in madder-red bordered on either side by a narrow cream-white band, and having the central field filled out with dots in matt cream-white which are reminiscent of the Neolithic white-filled punctuations. \({ }^{12}\) The continuous interval between the units in the zigzag series is filled out with a winding meander-band in vermilion. All on a purple-tinted lustrous black glaze slip on terracotta-red clay with red and black sand-like particles in it, hand-made. Height 28 c., base diameter 19 c., shoulder dianeter 22 c.

The kind of process of disintegration by which the stiff geometric or quasi-geometric motives of an earlier age were rendered fluent, and in turn induced the tendency to further fluency of curvilinear treatment in detail, is well illustrated by this rase. The double axe-like figures look like imitations of metal or bone inlays, and of course the form and decorative arrangement of such inlays were largely independent of the rigid geometric tradition. \({ }^{13}\). Thus, given the shapes of these and their serial oblique relation to each other, the outcurving ends of one fit in with the incurving sides of another in a way which conditions the curvilinear meander character of the connecting vermilion band, at the same time that this meander seems to condition their oblique relation to each other in a regular alternation of outcurving ends with incurving sides.

The tendency to concentrate the main design on the shoulder, which comes into prominence at this time, is one that grows with the elaboration of the sense of architectonic principles, which themselves in the last instance are conditioned by the inherent forms of vases themselves, these being dependent in their turn on the kind of use to which the vessels are put. The upper part of the vase as it swells outward to the shoulder is by its nature more important than the lower, and its visual prominence naturally marks it out for the

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14. Compare the white punctuations of Pl. VII. items 3 and 4, and of Pl. IX. 6 and, for the continuity in tradition, Early Minoan examples like B.S.A. x. 199, Fig. 2, \(h, j\), and Neolithic originals, such as J.H.S. xxiii. Pl. IV. 15-17, 21, 25, 27, 30. The eup, ib. Pl. VI. 2, shows the white punctuated band motive of the Neolithic fragments 15,16 surviving into the M. M. II. Period. The zigzag in white of the alteruate bands on this cup looks equally carly in origin, and it seems at length to attain
}
main part of the design. Thus in the distribution of space the upper field receives a greater portion of this than the lower, and the dividing line tends to come below the middle rather than above. In this way the inartistic impression which is invariably created by an exact bisection of the field is avoided through the visual subordination of the lower to the upper part.

This architectonic distribution of horizontal zones on a vase may in its origin be the result of influences that are largely adventitious and unintentional in their relation to the aesthetic result. Thus the horizontal zones may very well owe their actual origin to the ease with which horizontal bands are produced on a vessel revolving on a rotating disc in course of decoration if not of actual manufacture. Later, as we know, the use of the wheel must have given a powerful impetus to the use of this kind of zone-decoration; but the wheel as such cannot explain the origin of such design, if this origin is traceable back beyond the first use of the wheel. However the result may have been produced, yet the result itself when once achieved is one that henceforth survives largely in virtue of its aesthetic fitness. It is thus not a little remarkable that this system of decoration now fully inaugurated in this earlier part of the Middle Minoan Age, though in apparent antagonism to the opposing principles of vertical panelling and asymmetrical arrangements that were so current in the great polychrome period, survives henceforth as a guiding principle of ceramic decoration through all the later Minoan periods, and after that into the Classic Age of Greece. This decorative principle has indeed already attained to perfect balance in the beautiful and elegant M. M. II. cup shown in J.H.S. xxiii. Pl. V. 2.

If the different sets of vases and fragments of vases described above be taken together, the historical conclusion is possible that they all belong to one period: the earlier part of the Middle Minoan Age (M. M. I.). This is proved partly by their constant occurrence immediately underneath depositsoften floor-deposits-of the Second Middle Minoan Period and sometimes above deposits of the Early Minoan Period in genere, partly by the constant occurrence, along with the variants, in all the deposits, of typical vase-forms such as (1) the ring-foot and footless cups with broad band below the rim respectively light-on-dark or dark-on-light; (2) hole-mouthed two-handled spouted jugs dark-on-light and light-on-dark with characteristic geometricocurvilinear polychrome tendencies; (3) spouted one-handled jugs of the type with 'butterfly' motive and its polychrome variants.

The principal deposits of this period identified up to date are:-
(1) The deposit of the Dove-Vase in the Basement with Monolithic Pillars (1900 and 1903) Pls. VII., IX.
(2) The deposit found in what we are now able to identify as the M. M. I. Well underlying a basement of the East Wing of the Palace to west of the Court of the Spout (1901 and 1902). The series shown in J.H.S. xxiii. 167, Fig. 1 is from this well-deposit.
(3) The pit-deposit found in 1903 under the floor of a passage opening northwards off the East Pillar Room. See B.S.A. ix. pp. 94-8 and Figs. 55, 56.
(4) The important floor-deposit of houses belonging to the North Quarter of the City of Knossos and affording a clue as to the great expansion of the city in this direction in the early part of the Middle Minoan Age, PI. X.
(5) The important floor-deposits of a house on the west borders of the West Square of the Palace which contained the vases of Pl. XI. 1-20 (1905).
(6) A set of vases and vase-fragments found (1905) in a pit-repository immediately underlying the floors of the M. M. II. constructions in the north-east region of the Palace in which in 1902 were found the fine polychrome vases J.H.S. xxiii. Pl. V. 1, 2, 3 ; Pl. VI. 1, 2, 3.

All these deposits, with the exception of that of the well, are either flooror pit-deposits. As such they are indicative of the occurrence of a catastrophe through which they got covered up before they could be removed. As the vase-types are uniform with variants in the different deposits in which they are found, and as the sudden arrest in development indicated by the abandoned floor-deposits is found to be exactly simultaneous in regions so far apart as the Palace and the North Quarter of the City, we can conclude with safety that the catastrophe was a universal one, and that the different deposits simultaneously submerged by it represent the stage in development arrived at in Minoan ceramics at the close of the period which ended with this universal catastrophe.

With the 'reservation' of part of the light buff ground of a vase towards making it serve as a colour-element in polychrome decoration, which is exemplified by the broad horizontal buff band on the lower part of the vase last described, we have an instance at this early period of a technical finesse of ceramic decoration, which from this time onward is destined to play a prominent rôle in the history of Minoan vase-painting. Henceforth throughout the polychrome period the widest use is made of this curious technical device, and in the Late Minoan Age the practice of 'reservation' becomes so wide-spread as at last entirely to supplant the use of light colour on a dark ground. But it is not merely in such simple instances as this band-motive that even in this early part of the Middle Minoan Age the practice of this device is exemplified. We may not call the light-ground necks of the polychrome vases represented by fragments 17 and 18 on PI. VII., or the light panels alternating with dark ones of PI. IX. 13, true instances of such 'reservation'; yet in any instance in which the 'reservation' has been consciously designed by the potter to have its special colour effect as an element in the polychrome scheme, the decorative function of the device is manifest. Fragment 19 on Pl. VII. is indeed in this and in other respects so elaborate in its decorative treatment as to be a surprise in the context in which it occurs. It presents a vertical panel combination of a light with a dark ground in a manner which is no longer a compromise with earlier fashions, as was the case with the style of vase to which belong fragments 17 and 18 , but a true synthesis of the two styles. In such a synthesis the dark ground may be dominant or the light, or again the dark and the light parts of the ground in relation to the more liuear parts of the polychrome ornament may appear in such balance as themselves to be integral functions in the scheme
of decoration. This kind of synthesis was the highest achievement of the succeeding era.
2. On Pl. VIII, we have a series of polychrome fragments with a light ground from the 'North-West Pit.' In comparison with the earlier series of fragments on Pl. VII. several determinate differences emerge. (1) The geometric elements of design appear subordinate or latent. Curvilinear motives are dominant. (2) The colour-combinations are seen at a higher organic stage of development in relation to light as to dark grounds, whether these occur as separate unities or in synthesis. (3) This synthesis itself presents the highest stage in achievement, and it reflects historically the polychrome palace style of this period, in which light and dark grounds must have appeared in regular synthetic alternation in the finest decorative schemes in the wall-paintings as in the ceramic art of the period.

That we are a considerable way advanced beyond the manner of the earlier period becomes clear by a mere glance at the fragments on Pl. VIII. This advance in style, however, is never at the expense of any violent break with earlier fashions. Thus we need not be surprised to find in the wheel and the latticed circle of fragment 3 a pair of old favourites that have survived continuously from Early Minoan times and are trying to disguise themselves now in the polychrome finery of the day. This has been with only very partial success in the case of the prim-looking latticed circle. It has not really changed colour at all, but has retained its original dark hue alongside of a double in white that is also found putting in a very early appearance in the Middle Period. \({ }^{14}\) There is no doubt, however, that the white lattice in itself has an older history and that it is truer to its Neolithic connexions than the black lattice that begins to appear alongside of it in the Early Minoan Age. \({ }^{15}\)

In the case of the greater number of the fragments on PI. VIII. it can be said at once that the design is dark on a light ground. In the case of others, as for example, Nos. 4, 11, 17, 18 light and dark grounds are so equally balanced in one complex polychrome design as to be a true synthesis of both kinds of ground. In others again, as 12, 16, the ground as a whole may be regarded as dark with light ground appearing in details as part of the lesign. The dark ground is also dominant in Nos. 14 and 15, though here again the design itself may be regarded as a wide dark border on a light ground. In any case we have to distinguish between grounds that are light or dark as a whole and those that are light or dark in details. Grounds that are light or dark in detail become themselves intrinsic elements in the design and this new possibility leads to new combinations in the use and distribution of the colour schemes.

Thus, to take light-ground details. In these the light buff intervals alternating with dark ones, as in fragments \(4,12,16,17,18\), become ipso facto a new colour-element in the design itself. Again, to take dark-ground elements.

\footnotetext{
\({ }^{14}\) For a white latticed circle of this kind at the M. M. I. stage see B.S. A. ix. 95, Fig. 65, q.
\({ }^{15}\) For the lattice motive at the Early Minoan stage see B.S.A. x. 198-9, Fig. 2.
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MIDDLE MINOAN FOTTERY FROM KNOSSOS.
NORTH-WEST PIT: M.M. 11.




s

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(1)


11

1.)


NORTH QUARTER OF CITY: M. M. I.


MIDDLE MINOAN DOTTERY FROM KNOSSOS.
NORTH-EAST IMAGAZINES: M. M. III.

In these correspondingly the dark-ground intervals alternating regularly with the light ones become combined with the light design upon them in such a way as to form one of the colour-elements in this design itself. Thus fragments \(4,5,10,12,14,16,17,18\), give us combinations of black with two other colours for the design, if in these instances the ground is regarded as light. In fragment 4 we have combinations of three design-colours in synthesis whether the ground is regarded as dark or as light.

In fragments 13 and 17 we have an entirely new finesse in colour-effect. Both have boss-ornament in relief, the highest points of which allow the buff of the clay to appear through in a manner which repeats the high metallic points of light on bronze originals.

Finally the colour-schemes themselves have become richer in their repertory of tones. As the fine creamy buff surfaces with or without slip, polished or unpolished, emerge more and more as an element in the designs, the dull cream pigments tend to transform to a paler white. The vermiliontinted orange has beside it a paler yellow, the vermilion-tinted reds subordinate themselves to pale pink, terracotta-red, cherry-red, red-brown and purplebrown. Paler or warmer tints of buff clay and variations towads purple-brown or metallic purple-black glaze become consciously sought out in the grounds. The imitation of metallic high lights in relief may appear as points of white colour on dark glaze grounds, whether in the flat or in relief, or sometimes of the pale buff of the clay itself allowed, as in the instances referred to above (fragments 13 and 17), to appear through the lustrous black glaze of the ground. This variety of resource in the use of colour, in combination with the new variety introduced by means of the growing tendency towards curvilinear design, is what distinguishes the ceramic art of this period from the earlier manner illustrated by the fragments on Pl. VII. The great underlying fact that is common to both periods is the phenomenon of the coexistence of light with dark grounds, and this regular co-existence of light with dark grounds has been already traced continuously from the borders of the Neolithic Era through the Early Minoan Period to the time of which we speak. Of this continuous co-existence of light with dark grounds we have an emphatic illustration on Pl. VIII., the fragments on which with a light ground have been un purpose selected out of a context in which light and dark grounds regularly occurred together. We never have a period in which dark grounds appear alone, though on the other hand light grounds never emerge into emphatic predominance until the Late Minoan Age. Yet even at that later time the dark grounds are seen surviving as a subordinate factor and they never altogether die.

The greatest achievement of the Middle Period was undoubtedly the synthesis of the two styles to which reference has been made, and if we knew more of the wall-painting of this era we should probably find that this mature polychrome ceramic style was but one phase of a movement towards the synthesis in decorative art of light and dark grounds, which must have received its highest expression on the walls of the Earlier Palace itself. It is not likely that the alternation of light and dark-ground panels was au
h.S.-VOL. Xxvi.
invention of the potter alone, though it may very well have been one in which he shared in one common movement of decorative art in which the wallpainter took the lead. The invention was one that was inevitable when once it was seen that the buff clay could equally with the black glaze become an intrinsic element in polychrome design.

The principal ceramic finds of this period at Knossos identified up to date are:-
(1) The floor-deposits of the 'South-East Kannares Area' or area of the Basement with Monolithic Pillars where this deposit was found (1902) superimposed upon the eartier floor-deposit, to which belongs the pottery of Pls. VII., IX. J.H.S. xxiii. Pls. VI. 4, VII. are from this deposit. See B.S.A. viii. Pl. I. 'Earlier Palace'; ix. 18, Fig. 7.
(2) The floor-deposits of the 'North-East Kamares Area'-a system of' rooms, underlying the ground-floors of the North-east quarter of the Palace, in which (1902) were found the fine polychrome vases J.II.S. ib. Pis. V., VI. 1, 2, 3. See B.S.A. viii. PI. I. 'Earlier Palace.'
(3) The floor-deposits from the early basements underlying the groundfloors in the area of the Room of the Olive Press. J.HS. ib., Figs. 4, 5 (1902), and B..'.A. ix. Pl. II. (190:).
(4) The floor-deposits of the 'North-West Kamares Area' (1901 and 1903) and the 'North-West I'it' (1904). The pottery of our Pl. VIII. is from the latter deposit. S'ee also B.S.A. ix. Fig. 75; x. Figs. a (1), 6 .
(5) The floor-deposits of the Middle Minoan House beneath the West Square (1904), B.S.A. x. Figs. 4, 5 (2). This house in the southward direction had partially cut into the pre-existing house to which belong the floor-deposits of PI. XI. 1-20.

The simultmeous submergence of these floor-leposits was probably the result of a general catastrophe. See B.S.A. x. 16.
3. The decline of the polychrome style and the gradual relapse towards simple monochrome design on light and dark grounds is a tendency of the later Middle Minoan Age, which succeeded the general catastrophe referred to above.

The forces which tended to hasten this decline, and simultaneously to inaugurate a new phase in the development of style, have not to be conceived as influences acting from without but as integral moments in a process of disintegration and reconstruction working from within towards which the catastrophe referred to furnished only the occasional cause. This catastrophe did not bring with it the elements of an entirely new style from the outside: it simply acted as a precipitant to a process of development from the inside which was already latently active when the catastrophe came.

The polychrome style in its intrinsic character had grown to its full fruition as the mature outcome of a tendency in which differences of colour were regarded in the light of their decorative effect in their relation to each other. There was no more thought of imitating nature in this tendency than there probably was in the case of the textile fabrics or the decorative parts of the wall-paintings of the period. Colours hare harmonies of effect in
relation to each other, quite independently of the juxtapositions in which they are found in nature, and the polychrome art of the Middle Minoan Age is as practical an illustration in point as we have many ages later in the similar principle underlying the polychrome decorative art of Greece. This underlying principle is the same indeed, for that matter, over a much wider field, and is as independent of the mere imitation of nature in a tapestry of Ancient Egypt or a polychrome vase of Crete as in an old Persian carpet or an antique glass of Venice.

Considering the relatively limited scale of colours at the disposal of the Minoan ceramic artist, we have seen this principle of polychrome decoration in the mature period of the Middle Minoan Age reach a ligh degree of elaboration.

It is just towards the end of this era, however, that we see the beginnings of another tendency coming definitely into play, namely, that towards the portrayal of natural objects. And, as is apt to happen when a growing tendency comes into one sphere of action with one that has already reached full fruition, the new tendency as an evolutionary movement enters into antagonism with the old and strives to oust it from its field of activity. There is no doubt that the new tendency received great impetus through the catastrophe to which reference has been made above, as having occurred at the close of the great 'polychrome ' period. After that catastrophe we find polychrome processes in ceramic technique in course of rapid dissolution, while we see the new tendency in full swing, and by the time we again have floordeposits on a universal scale the new principle is so fully established in ceramic art as almost to have ousted the other.

In decorative wall-painting, on the other hand, the new tendency could effect a reconciliation with the old, for here the growing feeling for nature was able to receive expression for itself only within the limits set by the polychrome principle itself, which in the old-established usage of the time conditioned the general effect of all wall-painting in its decorative function as a whole and in detail.

That it was otherwise in ceramics was the outcome of special conditions and limitations of the art which are absent in the case of wall-painting. (1) Limits of space, which practically do not exist for the decorative wall-painter, tend to compel the vase-painter, in his preoccupation with the portrayal of motives from nature, to substitute such motives for the more purely decorative ones on the more prominent parts of the vase, and to give these so much scope as tend to reduce all decorative free-play to minor details on neck and base. Thus we find these more purely decorative motives surviving just where they are not in the way. The extreme of this tendency is seen in the vases with lily-design from the South-East Magazines shown in B.S.A. viii. 90, Fig. 51 (one of which again, ib. x. 7, Fig. 1) and J.H.S. xxiii. 189, Fig. 8.
(2) Once we have the portrayal of natural objects, such as flowers, which becomes so rife before the close of the Middle Minoan Age, it soon becomes apparent that a scale of colours, which in their relation to each
other were capable of producing polychrome effects of great beauty, was quite inaderuate towards the reproduction of the natural colours of objects. Thus green, for example, which is the first necessity towards the rendering of leaves and stems, and which we find in use with the wall-painter, did not exist in the colour-repertory of the vase-painter. The ceramic artist must thus have felt that with his limited scale of colous he could not produce the same natural effects as the wall-painter with his. On the other hand he must have been equally conscious that natural objects such as flowers did not look natural in a polychrome guise which was not that of nature. The only solution of the colour-difficulty in the circumstances was a compromise in the shape of a convention. Thus the tendency came into being to make all natural objects either simply light on a dark ground or dark on a light ground. The beginnings of this process go back to an early period and we have, for example, the Cretan goats of PI. IX. \% already appearing as simple black silhouettes on a light ground. Items 1 and 2 on Pl. VIII. show us graceful frond and leaf motives, with polychrome details, used with the fine sense of decorative effect so characteristic of the Second Middle Minoan Period. The tine panel jar from Phaestos again, Mon. Ant. Linc. xiv., Pl. XXXV, ", shows us an intermediate stage in the process, in which, on a vase that is still polychrome, tall reeds appear on alternate panels monochrome dark on a light ground. 'The twisted cable pattern in white on the stem, so far removed from nature, only serves to show how much the vase-painter was still under the influence of the decorative traditions of a polychrome style that itself was in process of passing away. The lily-vases referred to above show us the full accomplishment of the process in a monochrome design that is entirely light on a dark ground and yet entirely natural in its treatment of forms.

The finest vases of the Temple Repositories show us the same stage in development. Perhaps the most remarkable example from this series is a two-handled piriform amphora, with plant and flower design light on the usual semi-lustrous purple-black glaze ground. On cither side, front and back, in an oval panel is a plant-design with large spreading pointed heartlike leaves. A very freely rendered design of graceful tulip-like flowers on tall sinuous stems is fittingly adapted to suit the narrower interval left below the handles on either side. The free breadth of treatment combined with natural grace that characterizes the decorative style of vases like these was hardly ever again attained to in the ceramic art of a later time, but that the phenomenon was not an isolated one is shown by examples in wall-painting like that of the Crocus Gatherer, and in the art of faience like the crocus panels of the Votive Rubes, and the rose- and fern-leaves of the vases in the same material from the Temple Repositories themselves.
(3) In the course of such processes of change any latent weakness inherent in the organic fibre of earlier tradition that is itself in course of dissolution is found all at once to have come rapidly into full view. It has already been suggested that the general catastrophe, which occurred at the beginning of this period, gave a forcible impetus to the processes of change
and after that catastrophe it is equally apparent that the old polychrome decorative technique never again appears at the same high level of achievement as in the previous era. All the polychrome innovations of the finest period vanish with such rapidity after the catastrophe, that we can hardly account for the disappearance except on the hypothesis of a general decline at this time in the methorls of polychrome technique itself. A fixity in the durableness of the colour-media, which is only of relative moment to the wall-painter, was something of paramount importance in ceramic art. And any falling off in the technical art of fixing the colours on the body of the vase was in itself sure to leal to a rapid falling off in the regular use of these. Thus it probably is that the oranges, yellows, pinks, and crimsons of the great 'polychrome' era are found so entirely to have vanished, and that in the deposits belonging to the end of the new period we have still represented only the original whites and reds, and alongside of these the fundamental dark of the glaze and buff' of the clay.

This double fact respectively of the disappearance of the more recent elements and endurance of the earlier functions in the repertory of colours is itself a curious phenomenon of survival. The elements from the old colour repertory that survived into this period were those that had longest established themselves in continual use. Thus white and red survive continuously till now from the Neolithic Period, while the buft surfaces and black glaze ornament and ground are an equally continuous inheritance from the Early Minoan Age.

Coincident with this survival of earlier elements in colour, at the expense in ceramic art of colour-elements of later origin, is the survival in these colours of certain ornamental motives of earlier origin, at the expense of ornamental motives of later origin in later colours. Thus the spiral, itself of Early Minoan origin, survives till now almost invariably in its original white, and only very rarely in red or black. Similarly the Early Minoan cable-band is still true to its original white, and if it is not that it is sure to be in red or in black. \({ }^{16}\) The vase from Phaestos referred to above has going down the dark panels a chain of circles joined by transverse tangents that, in a simplified form, has survived in its original white from the Early Minoan Age. \({ }^{17}\) Again the early white and red horizontal bands on the subordinate parts of vases are a commonplace survival into the ornamental repertory of this period.

This coincidence in survival between certain functions of colour and of ornament is one that rests upon the mutual relation in which they appear together from the beginning. Otherwise it is not easy to account for the survival of colours like white or red, that from the point of view of durability have in themselves no distinct advantages over the colours that have vanished from the repertory. Those colours survived with the ornamental motives in

\footnotetext{
\({ }^{16}\) For a red and a hack cable pattern of this kind at the M. M. II. stage see the polychrome rups in J.H.S. xxiii. Pl. V. 3 and l'l. VI. 4.
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17 Compare the latticed ireles joined by transverse hands of tha E. M. III. Period in ID.S.A. x. 199, Fig. 2, items \(f\), li.
which they traditionally appeared on those parts of a rase, and under those circumstances in which they were not in the way. Thus we have the timehonoured horizontal bands, the spiral chains, and cable-bands on the upper and lower parts of vases, whose main field may be engrossed with the bold innovations of a recent time.

This phenomenon of survival of earlier elements at the expense of later ones is itself, however, a process of disintegration that is at the same time a process of readjustment to new conditions. The earlier elements in colour as in ornament preserve their original characteristics, but once having through disintegration become detached from their traditional environment they are now able to enter into new connexions. Thus, for example, the large spiral band in white on the shoulder of the jar J.H.S. xxiii. 177, Fig. 4, is a bold decorative variant for the branch-wreaths of Fig. 5 on the next page. On the Phaestos vase again the old-world chain of circles connected by transverse talngents of Early Minoan origin in white on the dark panels performs the same decorative function as the new-fangled plant motive in black on the alternate panels with a light ground.

Colours, however, as media have a much greater capacity for entering into new combinations than the ornamental motives that survive in them. The traditional conservatism of ormament in its development is one that always tends to persist in its original characteristics, while the colours that have survived as media with the ornament, provided they are true to their original shade, can easily disconnect themselves from the combinations in which they have survived in order to enter into new ones. The large and growing use at this period of white in the rendering of flower and plant forms, at the entire expense of every other colour except the vanishing red and the glaze-black whose use becomes so dominant in the next era, is fully illustrative of this adaptability of a surviving colour-medium towards entering into new combinations. On the vase from Phaestos and its interesting companion we find this vanishing red still appearing, now in the primitive cable pattern, now in graceful blossoms and blossom-sprays.

The tendency is already nascent in vases that are still polychrome, for example the branch-bands of the jar already mentioned (J.H.S. xxiii. 17S, Fig. 5). At this stage, however, the horizontal arrangement of the white branches as a band still betrays the influence of limits set by polychrome architectonic traditions, and it is only the rertical panel that affords excuse for an arrangement more in accordance with nature. In the vase from Phaestos referred to above we have this panel arrangement, but the reedmotive appearing black on the alternate light panels, the artist has fallen into the curious temptation of further defining his stems, by means of a cablechain in white going up them which has nothing to do with nature though decoratively it has its full justification in the touch of colour-vaniety it introduces into the bare black of the stem. Indeed the panel arrangement, alternately light and dark, of this vase has made possible a happy union of time-honoured decorative schemes with the recent motives from the world of plants and flowers which makes us entirely forget questions of origin and
tendency for the sake of the fine polychrome breadth of treatment and architectonic balance of the whole. The equally beautiful companion to this vase (ibid. b) shows hardly less mastery of architectonic treatment in the decorative subordination of polychrome blossom-sprays and palm-like leaves to a spiral system in white, in an oval panel on a dark ground, whose early connexions are equally forgotten in the fitting grace of the general design. At the end of the Middle Minoan Age, as represented, for example, in the pottery of the Temple Repositories, we have still got the tradition of the alternate vertical panels light and dark and of the oval panels on a dark ground, but the rendering of plants and flowers in white has become so natural as at first sight to seem quite independent of all previous tradition in ornament, and this is true to a still greater degree of the lily-vases already mentioned.

There is, however, a further moment in colour-survival that requires remark. We have seen white surviving with certain ornamental motives, and then detaching itself from its comexion with these and entering into new combinations in the rendering of flower and plant forms. But this is not entirely at the expense of the original connexions. The old connexions are not entirely given up because new ones are formed. The white in its traditional connexion with the spiral, for example, survives alongside of the new combinations in which it appears. The white spiral is of much earlier origin than the white branch, but on the jars referred to above the spiral and the branch in white already appear as decorative variants of each other. At the end of the Middle Minoan Age the white spiral is still popular as the main decoration of a vase, alongside of elaborate decorations in white from nature, as on the outside of the 'candlestick' in J.H.S. xxiii. 189, Fig. 8, 2, which occurs in the same context as the beautiful white lilies of the vases \(i b .7,10 .{ }^{18}\) The black double of the spiral in white (ib. 3) comes more and more to the front at a time when the growing monochrome tendency makes simple dark-on-light the one natural alternative to light-on-dark design. In the Temple Repositoriez, again, the large spiral decoration in white on the pitcher in Fig. 1, h, is so effective as to seem little out of place alongside of the natural twigs in white on a dark panel ground which we have in the same series, \(d\). In these repositories the spirals in white continue still to be more popular than the similar ones in black, but the same deposit shows us a vase, \(f\), in which a white spiral band on a dark ground on the shoulder may be regarded as more than balanced by a black spiral-band on a much wider light ground on the body of the vase. \({ }^{19}\)

This example, with its spiral systems indifferently light on a dark or dark on a light ground, is of itself sufficient to illustrate at this stage a

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\({ }^{18}\) For the 'candlestich' see also B.S.A. viii. 91, Fig. 51, 2 ; 92, Fig. 52.
19 The spirals here appear as hlack discs joined by pairs of transrerse tangents just as as if we had to do with the donble in black of the similar motive in white of the panelled
}
vase from Phaestos referred to in previous passages. Have we not here indeed the original of the spiral chain itself surviving on its own account alongside of that from the Early Minoan Age :
universal law of the development of style in Minoan ceramics. The style of decoration and the repertory of ornament at any given stage in development are the same whether on a light or a dark ground. Begiming with the Early Minoan Age there is never at any stage any real conflict of motives on a light with those on a dark ground, but only of later motives with earlier ones, whether the grounds are light or dark. In the period at which we have now arrived, that conflict took the form of a struggle between the more


(Alter B.S.A. in. 50, Fïs. 26.)
recent tendency towards portrayal of nature, and the earlier motives from the rich traditional repertory of polychrome ornament, which we see in such brilliant bloom in the ceramic art of the previous era. It is not a conflict of styles disparate in historic origin, as if with the light grounds some influence from without had come to be superinduced upon the native influences from within; for the light grounds have been there from the very beginning of the use of paints in ceramics, and the new influences, if anything, are more
marked on the dark grounds than on the light ones, as the lily-vases have taught us. The conflict is one of a later phase of style with an earlier one, whether the grounds are light or dark; and that conflict in its full antithesis was that between an earlier style of polychrome ornament, which has nothing to do with nature though it has its own legitimate function in decorative art, and a later natural style. This later style, in its convention of simple light on dark or dark on light grounds, threatens the legitimate function in ceramic art of a polychrome principle, which under more favourable conditions still continued to play its usual rolle in the wall-painting of the period.

In this conflict it need not be surprising that many time-honoured elements of ornament managed to survive into the new era, in an environment from which the polychrome colour-functions of more recent origin were themselves, in rapid process of elimination. This survival of decorative omament alongside of the growth of natural motives means no real or intrinsic disparateness in style itself, since decorative ornament in its own sphere is as essential to style as truth to nature in its particular province. The unity of style that results, however manifold may be the moments that make it up, is one whether the decoration is light or dark, and if in the next age the light grounds ultimately triumph under particular and partly accidental circumstances, in the natural course of development the style that results is one that emerges out of conditions that previonsly were common to light as to dark grounds. In the clash of the processes of change, the conservative tendency of tradition in the development of omament is apt to receive an exaggerated expression of reaction in the work of individuals as of particular-schools, just at the moment when the new influences are winning the day; but from this phenomenon to argue to disparateness of origin as regards different phases of style, that may come into simultaneous contrast at the same time that they are successively unfolding themselves into synthetic moments of each other, is to ignore a principle of antithetic movement that is the very life of all development. It is only a particular form of the same fallacy to argue, from the special unity of style that is characteristic of a certain given phase of ceramic art, against the multiplicity of tendency at an earlier stage which has gone to shape that particular unity of style. And a conception of the unity of style which excludes this manifoldness of tendency, simply because we happen not to know all the successive phases in the process of development, is simply an abstraction of our own making.

It is, however, a more serious hindrance to scientific progress when long-established prejudice comes in to darken knowledge. Thus, for example, it has been long assumed after Furtwïngler and Loeschke that what it has been usual to call the Mycenaean style in ceramic art was the invention of Achacan or Mycenaean Greeks. It seems labour in vain to insist on the bearing of the Cretan evidence to the effect that the beginnings of the style which is most characteristic of the ceramic art of the Mycenaean Age are found in process of development in the Aegean, at an era preceding by many ages the first appearance of any people of Hellenic race and speech on the mainland of Greece.

The underlying assumption, whether consciously acknowledged or not, is, at bottom, to the effect that the supposed 'Achaean ' racial movement which, with reference to the mainland of Greece, is regarded as having originated the Mycenaean Civilization, was an Aryan one from the north. And this assumption has become one of those fixed ideas in archaeology for which it is difficult, by the ordinary normal processes of reasoning, to come to terms with conclusions from actual excavation. Such conclusions make it ever more apparent that the racial movement which resulted in the AegeoMycenaean Civilization was a pre-Aryan one from the south, and that consequently for such a movement the islands became early centres of racial development, which gave them the natural antecedence and precedence in influence over what for such a northward movement was the more outlying littoral of Greece and Italy and Anatolia. The most recent results from mainland Greek centres so far apart as Argos and Orchomenos are quite in harmony with these conclusions. They reveal to us a matt technique in ceramics, which is as wrongly instanced to argue a real disparity of race in the earliest period which preceded all preponderating racial movements from the north, as it is rightly used to strengthen the conclusions as to the outlying tardative character on the continent of a ceramic art whose great progressive centres were in the Aegean world -under the growing paramount influence of Crete.

The principal deposits of pottery that up to date have to be assigned to the closing period of the Middle Minoan Age are the following:
(1) A group of vases including one with a graffito inscription found in 1901 in an earlier basement underneath the ground-floors in the south-west region of the Palace. See D.S.A. vii. 10-11, Fig. 4.
(2) The ware found in 1901 in the second cist from the west end of Magazine 4 in the West Wing of the Palace. See ib. 47, Fig. 14 and J.H.S. xxiii. 185, 188, 190. This isolated find in the light of later discoveries has now to be shifted back from the position assigned to it in these citations into the same company as the other groups here enumerated. The two-handled piriform jars of this cist are exactly like those of the Temple liepositories.
(3) The pottery of the North-East Magazines from the excavations of 1901. See B.S.A. ib. 72-4, Fig. 24. From this deposit we have to exclude the pottery found along with a steatite vase-stand (see ib. 74) outside the existing west wall of the Magazines, all which belonged to a later deposit formed after the Magazines themselves had got covered up. \({ }^{20}\) The 'trickle' decoration so common on many of the vases from these magazines is very characteristic of the closing period of the Middle Minoan Age, though its origin, as we have seen, goes back to an earlier time. See ib. Fig. 24, 'streaked vases in heaps,' and our Pl. XI. 21-23. Into the same context comes the pottery from the floor-deposits of the North-East Hall and adjoining store-closet. In the store-closet was found a pithos with 'trickle'

2" The allocation to Magazine 5 in the passage and Figure cited in the text rests upon an ovversight.
decoration and rope pattern like those of the knobbed Pithoi of the East Magazines. There is now conclusive evidence that this whole complex of apartments inclusively of the North-East Hall or Light-well and its staircase as far south as, though probably not including, the corridor going east-west to north of the system to which belongs the Room of the Olive Press, had got covered up before the beginning of the Late Minoan Age. See B.S.A. xi. 210 .
(4) The ware found in 1902 in the deposits immediately underlying the palace floors in the area of the Room of the Olive Press and superimposed on Hoor-deposits with pottery of the finest polychrome class in the same area. See J.H.S xxiii. 179, 180 with Fig. 6, 181 and B.S.A. x. 6, 8.
(5) The important series of large knobbed pithoi with characteristic 'trickle' decoration found in 1902 in a series of early magazines in the area north of the Court of the Oil Spout in the East Wing of the Palace. See B.S.A. viii. 10-11, Fig. 5 ; x. 10-12, Fig. 3. These magazines, whose foundations were laid deep down, had cut into the south end of the older system with rich floor-deposits of the finest polychrome ware such as that figured J.H.S. xxiii. Pls. V. and VI. 1-3. See also B.S.A. viii. Pl. I. MNO, 11-12, ' Earlier Palace.' The frequency of the 'trickle' decoration on these pithoi is in chronological harmony with its frequency on the jars of the North-East Magazines (above, group 3).
(6) The series of pithoi and other vases including those with lilies found in 1902 in the South-East Magazines. See B.S.A. viii. 91, Fig. 51; J.H.S. xxiii. 189, Fig. 8. Later ceramic discoveries justify the withdrawal of this series from the company in which it appears in the above citations and the bringing of it into one context with the groups enumerated here. See B.S.A. x. 7, Fig. 1 and 8, 9, Fig. 2. The two-handled type of tall slender jar with the lilies is essentially the same as that with the 'trickle' decoration of the North-East Magazines. The only difference is that the jars of the North-East Magazines still have their circular hole-spout with lip, whereas this spout in the case of the lily-vases has dwindled to a flat button. This difference in itself, however, does not compel us to put the lily-vases later than the others in date, for, apart from the similar stratification, the continuation of the real spout in those circumstances in which it is of practical use, alongside of the mere ornamental reminiscence of a spout in those other circumstances in which its practical use has disappeared, is one of the commonplaces of ceramic traditional survival. The real spout occurs in the same deposit alongside of still other instances in which external appearances are kept up, though the spout itself when looked into is false, as in the case of some of the pithoi. These two-handied spouted pithoi indeed are probably themselves in origin derived from the two-handled spouted hole-mouthed jug so characteristic of the Middle Minoan Age in general. The mediating type probably was a larger kind of two-handled, hole-mouthed jar like those of J.H.S. ib. Figs. 4, 5. The spout, which was still of practical use in the case of a medium-sized jar, could only have the function of an ornament for a pithos too large to be tilted or raised from the ground for pouring purposes.
(7) The ware from the deposit in the area of the Basement of the Monolithic Pillars in which in 1902 were found the two vases with inscriptions in ink described B.S.A. viii. 107, 108, Fig. 66. This deposit belongs to a stratum superimposed upon that which contained the finest polychrome ware, while adjacent at a higher level were the floor deposits of the Palace. To the same deposit belonged a small pithos with 'trickle' decoration like that of the Knobbed Pithoi and of the jars of the North-East Magazines.
(8) In the 'North-East Kamares Area' ('Earlier Palace'), above the floor-deposits with fine polychrome egg-shell ware, occurred a later stratum, again with clearly marked floor-deposits which contained, among other characteristic pottery, a series of tall slender two-handled jars, lying on their sides, of the same type as the tall graceful jars, with handles below the shoulder, of the cists adjacent to the Temple Repositories, and the other similar jar with graffito inscription from the South-West Basement. See B.S.A. ib. 117, 118.
(9) The remains of a large knobbed pithos and vases found along with it in the 'Walled Pit No. V.' in the region of the Palace north of the northwest angle of the Central Court (1901 and 1903). See B.S.A. ix. 23, Fig. 11, V.; 26, Fig. 13; 27, Fig. 14; x. 10. This knobbed pithos with its 'trickle' decoration was of very similar character to the knobbed Pithoi of the East Magazines.
(10) The important series of vases found in 1903 in the 'Iemple Repositories and in 1904 in the connected system of three cists which run north from the Repositories towards the Antechamber of the Throne-room. See Fig. 1 and B.S.A. ix. 48, Fig. 25 ; 4 9,50 , Fig. \(26 ; 51\); x. 13, 26 644 , Pl. I. The vases of the 'lemple Repositories were rich in naturalistic motives in the shape of plants and flowers, whose fine feeling for style faithfully re-echoed that of the embroidered flowers on the panels and borders of the dresses of the Snake Goddesses from the same deposit. There is further an exact resemblance to the fine style of the lily-vases of the South-East Magazines. The Temple Repositories and connected cists had spouted twohandled jars with 'trickle' decoration, like those of the North-East Magazines and other vases like the jar with graffito inscription and its companions from the early basements in the south-west region of the Palace and like the tall handsome jars from the 'North-East Kamares Area' referred to above (group 8).
(11) The ware found in 1904 in the latest stratum underlying the pavement of the West Court of the Palace and of the Corridor of the Procession. See B.S.A. x. 6, 10, 11. The ware found underlying the pavement of the West Court belonged to the floor-deposits of a house built on the ruins of that which contained the fine polychrome ware represented ilid. 15, Fig. 4. Here occurred types of vases, with a purple-black glaze ground, resembling those with lilies from the South-East Magazines, and with a buff ground like those having 'trickle' decoration from the North-East Magazines. The pottery found underlying the Corridor of the Procession
again contained the type of the jars with 'trickle' decoration from the North-East Magazines, while their environment brings us back once more to the similar deposit from the adjacent South-West Basement, which yielded the vase with graffito inscription and its companions (above deposit 1).

The general catastrophe indicated by the simultaneous submergence of the floor-deposits just enumerated may be conveniently taken as marking at the same time the end of the Middle Minoan Age.

Duncan Mackenzie.

\section*{THE LAS'T SCENE OF THE EUMENIDES.}

At the end of the play, when the Eumenides are to be ushered to their cave beneath the Areopagus, Athena joins to the procession a special escort of her own temple-servants, and sets forth the procession with these words:
\[
\begin{aligned}
& 1022 \\
& \pi \epsilon \in \mu \psi \omega \tau \epsilon \phi^{\prime} \gamma \gamma \epsilon \iota \lambda a \mu \pi a ́ \delta \omega \nu \text { бє } \lambda a \sigma \phi o ́ \rho \omega \nu
\end{aligned}
\]
\[
\begin{aligned}
& \pi a i ́ \delta \omega \nu, \gamma \nu \nu a \iota \kappa \hat{\nu}, \kappa \text { каi ото́入оs } \pi \rho \epsilon \sigma \beta \nu \tau i ́ \delta \omega \nu \quad 1028
\end{aligned}
\]

The unsolved questions in lines 1028-1030 are two:-first, how to punctuate them, that is, who are to be the wearers of the crimson cloaks, the Escort or the Eumenides themselves: and second, what is the reason for the crimson colour? Neither question, perhaps, may seem to be of great importance; but Aeschylus is not a poet who does things at random; he is apt to have more than superficial meanings; and enquiry may, I hope, reward us with a new significance.

On the punctuation, which determines who the wearers are, I will say this to begin with; that if the meaning were a noble troop in crimson raiment, Greek would require the addition of \(\epsilon ้ \nu: ~ \ell . g\). Plut. Anton. \(44 \hat{\epsilon} \nu \tau \hat{\eta} \sigma \tau \rho a \tau \eta \gamma \kappa \kappa \hat{\eta}\)
 Eur. Hec. 464, Bacch. 973, Aesch. Agam. 1270, Pers. \(280 \pi \lambda a \gamma \kappa т o i ̂ s ~ e ̀ v ~\) \(\delta \iota \pi \lambda\) áкє \(\sigma \sigma \iota \nu .{ }^{2}\) We should be obliged, if this were the meaning, to suppose either the omission of a previous line containing \(\dot{\epsilon} \nu\), or an adjective 'arrayed in'; or else, with Hartung and others, to suppose that \(\epsilon \nu \delta u \tau o i s ~ i s ~ a ~ m i s t a k e ~\) for \(\epsilon \in \delta u \tau \hat{\omega} \nu\). But upon either of these suppositions we shall be left with \(\tau \iota \mu \hat{\tau} \epsilon\) baldly by itself, 'do honour' to them,' without any specification of the

\footnotetext{
\({ }^{1}\) As I would read insteal of \(\pi v \rho o{ }^{\prime}\) : but this is immaterial here.
}

\footnotetext{
\(\because\) I have explained this much-mistaken phrase in the Classical Revietr, 1902, p. 435.
}
honour ; which has been generally felt to be unlikely. Some therefore have conjectured that the specific honour was coutained in a passage lost before тєцâтє, 'honour them'e.g. 'with the name Evं \(\mu \epsilon v i \delta \epsilon s^{\prime}\) '; while Paley supposed \(\tau \iota \mu a ̀ \tau \epsilon\) to be an error for mpoßãtє 'proceed.' But (though this reading is adopted by Wecklein in his school-edition) it is most improbable that any scribe, finding in the text of a tragedy \(\pi \rho o \beta a \hat{a} \tau \epsilon\), should mistake it for тıца̂тє.
 'honour them with crimson robes' hang naturally together, as c.g. Agam. 913 Өєoús тoı тoî \(\delta \epsilon \tau \tau \mu a \lambda \phi \epsilon i ̂ \nu ~ \chi \rho \epsilon\) éó (with the purple broideries), and prima facic therefore it would appear that that phrase is correct, and means that the Eumenides themselves are to be arrayed in crimson.

Why then crimson? Their proper colour, as Chthonic Powers, is of course that of mourning, \(\mu \epsilon \lambda^{\lambda} a \nu a\) or \(\phi a \iota a\), as opposed to white, which belongs to the Divinities of Heaven, represented by Apollo: so much is certain, even if we were not expressly told it in the play itself. This question was touched by Karl Ottfried Miiller in \(\S 86\) of his Dissertation on the Eumenides-that admirable work by a truly admirable critic. He has been showing (§ 80) that the Erinyes were not in the earliest ages independent deities. Their function is a chthonic one, and was included originally among those of the Earth-Mother, who in ancient times was widely worshipped under the title of Demeter Erinys. When they disengaged themselves and became separate personifications, it was natural that they should still retain some ritual attributes in common ; and among the common attributes that Miuller looks upon as traces of original identity is this one of the crimson robe: 'Again, at Athens the Erinyes were clothed in blood-red garments (Eルm. 1029), \({ }^{3}\) and so also at Syracuse Demeter and Cora, as Thesmophorian Goddesses, wore purple robes, which were put on by persons about to take some dreadful oath.' 'The passage he refers to is Plut. Dio 566: Callippus was required by

 \(\pi i \sigma \tau \iota \nu i \epsilon \rho \hat{\omega} \nu \tau \iota \nu \omega \nu \quad \gamma \in \nu \circ \mu \epsilon ́ \nu \omega \nu \pi \epsilon \rho \iota \beta a ́ \lambda \lambda \epsilon \tau a \iota \tau \grave{\eta} \nu \pi \circ \rho \phi v \rho i ́ \delta a \tau \hat{\eta} \varsigma \theta \in o \hat{v}\),


We may compare with this the robing in Achilles Tatius viii. 13 of a girl who is to undergo an ordeal of virginity: \(\dot{\epsilon} \sigma \tau o \dot{\lambda} \lambda \iota \sigma \tau o \delta^{\prime} \dot{\eta} \Lambda \epsilon \cup \kappa i \pi \pi \eta \tau \hat{\eta}\)

 And this again can hardly be distinguished from the raiment worn by those who consulted the oracle of Trophonius: Maximus Tyrius xiv. 2 ó \(\delta \in o ́ \mu \in \nu\) os

 катà oтouiou ovevov. A crimson ralvia was in some cases-probably in

\footnotetext{
\({ }^{3} \mathrm{He}\) supposes this to have been an estab. lished piece of ritual, \(\S 89\) : ' In all probability there were also carved wooden images of the Erinyes here. For these images the purple
}
many－part of the dress wom by priests ；the priests of Eleusis are one case， and another may be seen in Diels，Silyllinische Blittler，p．121．We are told by the Scholiast on Apoll．Rhool．i． 917 about those initiated in the
 торфирâs：a passage used by Lobeck Aglamphamus 371：＂Iєробтодıки́ et Kaтa \(\boldsymbol{\xi}_{\omega \sigma \tau \iota \kappa o ́ v, ~ q u a e ~ S u i d a s ~ r e c e n s e t, ~ a d ~ u n u m ~ e u n d e m q u e ~ l o c u m ~ d e ~ v e s t i t u ~}^{\text {a }}\) sacro sive initiatorum sive simulacrorum divinorum pertinere videntur，in quo quantum studii posuerint veteres，indicio sunt Stolistae seu Hierostolistae， qui a Plutarcho vocantur＇Iepó⿱亠тo入o九 de Is．c．III．104，unde nomen iєpoгто入ıкá derivari commorle potest．Kaтaそんбтєкóv fortasse a cinguli sacri traditione nomen habet，quo recens initiati tum in Samothraciis mysteriis tum in aliis ornari solebant ．．．＇To this part of the＇О \(о 申 \iota \kappa\) á belonged the passage quoted by Macrob．Sat．1．18．22：Item Orpheus Liberum atque Solem unum esse deum eundemque demonstrans de ornatu vestituque eius in sacris Liberalibus ita scribit：
\(\sigma \hat{\omega} \mu a\) \(\theta \epsilon o \hat{v}, \mu i \mu \eta \mu a \pi \epsilon \rho \iota \kappa \lambda \nu \tau o \hat{v}\)＇ \(\mathrm{H} \in \lambda\) ioıo．

At the Andania Mysteries however white seems to have been the only wear； \(\pi o \rho \phi\) ט́pa is mentioned only to be expressly forbidden in the case of the cushions on the seats of the iєpai．（Michel，Recucil dr Insci．694， 11.15 ff ．）

These passages I leave to consideration，remarking just two points： （1）Müller assumes that a moрфvpis is identical with a фоьขıкis：and the other critics who have touched the subject do not seem ever to have suggested that there is any distinction to be drawn betweeu them．They may be right；but it appears to me a little hazardous to assume that the colours were entirely interchangeable for religious purposes：I should be inclined to regard фо七七коиิ̀ as the angrier colour of the two，and more appropriate therefore to Infernal Deities ；its use in lustral and magic ceremonies is well known． （2）A roopфиois certainly must not be regarded as peculiar to Chthonic powers ：for example Strabo 648 tell us that the Magnesian city honoured
 \(\Delta\) iós．

Diels，Sibyllinische Bletter（1890）p．70，holds that the original reason for the use of red dye in lustral ceremonies was that it was blood－colour，and served as a substitute for blood：Die Farbe des Blutes erklärt die lustrale
 Daher das flammoum der nupta（Schol．Iuvenal．VI 22．）est enim sanguineum） und der Flaminica Dialis（die auch ein purpurnes Kleid trug），sowie überhaupt der purpureus amictus beim römischen Opfer，wodurch die zu Entsiihnenden als Substitute des blatigen Opfers bezeichnet werden．Vgl．Verg．Acn．III 40： u．A．Plin．Nat．h．IX 127 （purpura）dis advocutur placandis．Fïr

\footnotetext{
\({ }^{6}\) See e．g．K．F．Hexmann Allerliümer（1858）ii．pp．139，219，Lobeck Aylcophamus p． 702.
}
griechischen Brauch vgl. Aesch. Eum. 1029 ; [Lys.] 6, 51 ; Plut. Arist. 21. Endlich geht aus der lustrale Bedeutung der purpurnen Welle und Wollfaden die apotropaiische Verwendung hervor. . . And on p. 72 fin. he quotes Varro's view as given by Servius III \(67 \ldots\). quonicum sumptuusum evat of crudele victimas val homines interficere, sennguinci coloris conpta est restis mortuis inici.

In the J.H.S. 1898 p. xliv, suggesting the same origin of the colou's use, Mr. A. B. Cook ventures upon a narrower generalisation: ""The cloaks of crimson dye " worn during the solemn procession which is to escort the Furies, are to be explained by the prophylactic significance of the colour red. . . . Red or purple is in every case a prophylactic colour.' I should hesitate myself to say that mopфupâ were never given to the Upper Gods as being royal colour: and in the case of our фоь七кóßaтта here I think we need not look for any secondary prophylactic reason. Blood-red alone would be enough to make the colour suitable to angry Powers. It is as a garment dyed in blood that it is worn by \(\dot{o} \lambda o \eta\) K \(\eta \rho \rho\), the Spirit of Destruction, in the midst of battle,
 are K \(\eta \rho \epsilon \varsigma\) 'Harms ' (Aesch. Theb. 1055). It is worn by Tisiphone, the Bloodavenger, in Verg. A. vi. an.) Tisiphone palle succincta cruenta, and in Ov. Met. iv. \(4 \times 1\) Tisiphone madefuctam sanguine sumit importuna fucem fluidoque cruoi'e rubentem induitur pallam.

And what is this but military red ?-a use which tradition has continued, together with drums and trumpets, to the present day; partly no doubt by reason of the splendour of it, but originally worn, one may suppose, not as a prophylactic, but as threatening revenge and blood to others. In Homer K 133 Nestor, arming for battle, dons a \(\chi\) 入aîvav фoıvıкóe \(\sigma \sigma \nu\). It was the regular uniform of the Laconian soldiers. Being a \(\chi \lambda a \mu \nu ̀ s \pi o \lambda \epsilon \mu \iota \kappa \eta\) ' (Schol. Ar. Pas 303), it was worn by the young Knights, \({ }^{\prime \prime} \phi \eta \beta o \iota ~ i \pi \pi \epsilon i \varsigma\), as at the Thessalian festival described by Heliodorus iii. 3, in which at the same time the girls кavךфopov̂бıv. The Salii performed their war-dance фoוvıкouss
 to suppose a prophylactic use in the Plataean ceremony described by Plut. Aristid. 21, when the Archon puts on a crimson garment to sacrifice to Zeus and 'E \(\rho \mu \hat{\eta} \varsigma \chi^{\text {Oóvos }}\) and the fallen warriors, though never else does he wear anything but white: it might be no more than symbolical of war and bloodshed. 'The red habit,' says Burton on the 1001 Nights vol. v. p. 156 ed. 1894, ' is a sign of wrath and vengeance, and the Persian Kings, like Fath Ali Shah, used to wear it when about to order some horrid punishment. White mbes denoted peace and mercy as well as joy.' That surely was the meaning of the red flag which was waved by the priests and priestesses at Athens when pronouncing a solemn execration: Lysias \({ }^{5}\) contra Andoc. p. 107. 52 : émi


\footnotetext{
\({ }^{5}\) K. F. Herman Altcrthïmer (1858) ii. p. 219 \$ 35 note 16 associates this as chthonic ritual with our passage.
}

\footnotetext{



}
 cap which our judges still put on before pronouncing sentence of death.

The garb of the Erinyes was certainly not at all times \(\mu\) é \(\lambda a \nu\) or \(\phi\) ocón murelieved: in Lucan vi. 65t, when Erichtho is preparing for the excreise of her Black Art, discolor ct remio furiulis cultus amictus induitar. We are told by Diog. Laert. vi. 102 that Menedemus the Cynic assumed the guise of an

 crimson girdle, like the sad-coloured robe, belonged to an Erinys.

The costume of one upon a vase figured by Millin Pcintures II 68 is thus described by Boettiger Die Furienmaske (of which I possess only the French translation): 'L'habit retroussé ne descend (que jusqu' aux genoux : elle est chaussée de cothurnes. Elle est ailée, et ses ailes sont attachées aux épaules avec un ruban de pourpre. . . . . Tout son vêtément . . . . . est gami de belles broderies en forme de méandres, et orné de bandes de pourpre, et de paillettes d' or en forme de cercle.' Boettiger gives reason to suppose that this costume, with the cothurns and purple ribbands, was designed to represent the Erinyes as huntresses; it is just the costume that Artemis or Diana, as the Huntress, is arrayed in (cf. Xenophon Ephes. i. 2) :-though, as I learn from Mr. G. F. Hill, 'it is impossible to argue much from the colour' of the ribbands here, because on vases of this kind the only colours used are black, white, purple, and the natural colour of the ware.'

Apart from this, however, the other evidence gives us, I think, sufficient reasou to conclude that the Eumenides might wear this colour without ritual offence. And on this occasion, which is not, as usual, \(\delta \dot{\sigma} \sigma \phi \eta \mu \nu\), but \(\epsilon \check{\partial} \phi \eta \mu o \nu\)-white surplices indeed they cannot wear, but фо七七к \(\alpha\), which in some degree at least are proper to them, may be used to robe them in for special honour, just as \(\dot{e} \lambda o v \rho \gamma \hat{\eta} \pi o \rho \phi u \rho a \hat{a}\) were used on festal days to robe the statues of the Gods above.

But to the Athenian spectators of the play I think that this investiture would have conveyed another and more definite significance. All the latter part of the play is devoted to two inter-woven subjects-to the glory of Athena, who is shown abolishing the ancient Ordeal by Oath \({ }^{7}\) and instituting civilised Justice and Trial by Jury on the Areopagus; and to the establish. ment of the Eumenides in their abode at Athens, where instead of being regarded with disgust and hatred, they are heuceforth to be looked on as beneficent and salutary. The last quarter of the play is occupied with this arrangement. At \(v .807\) Athena offers them a habitation in the righteous land; at last prevails upon them to accept it; and the acceptance is celebratel with songs of mutual congratulation. They are now to be

 (917), \(\mu \in \tau о \kappa \kappa\) iad (1019). It would be strange, under all the reiteration of the

\footnotetext{
\({ }^{7}\) This is the significance of \(\tau v .432-436\).
}
words \(\mu \hat{\tau} \tau о \iota \kappa o \iota, \dot{u} \sigma \tau o i\), and \(\pi о \lambda i ̂ \tau a l\) ，if the thoughts of the Athenian hearers had not turned to the relations between Burgesses and human Denizens．

The greatest festival in the Athenian year，the National Feast，was the Mava日ijvala，to the glory of Athena．And a most notable feature of that great occasion was that the \(\mu\) éro九кo兀 took part in the procession．To the mind of Aeschylus the likeness of the situation could not help occurring；and it would be like his way to use the parallel and keep suggesting it by elaborate allusion．Thus，as I have pointed out elsewhere，in the Choephoroe one of the main ideas is the change from Darkness into Light；and again the usurpers in the palace are conceived as a pollution or disease to be expelled by purges：with those two conceptions，Aeschylus could not but have present to him the analogy of the Great Mysteries，in which those initiated and made perfect after purifying ceremonies passed from profound darkness suddenly into a great light；and I think that in the language of the last chorus at any rate there are umistakeable allusions to them．

If，then，we could only find that at the Panathenaea the \(\mu\) є́тоькоь were endued with any corresponding honour，we might fairly think that Aeschylus intended to suggest it．Crimson cloaks indeed we could hardly expect that resident aliens should be allowed to wear；but we might be content with something short of that．Yet crimson cloaks，and nothing less，were actually worn by the resident aliens in that procession：Photius

 \(\chi \iota \tau \hat{\omega} \nu a \varsigma\) ．oṽт \(\omega \varsigma\) Mévavofos．\({ }^{8}\) Bekker Anecd．214． 3 （Suid．，Et．Mag．）





And we have a valuable record of the spirit in which this was done：

 order that，partaking in the sacrifices，they may be included as being of good will．＇Now let us recall the phrases used by Aeschylus ：



тò \(\lambda о \iota \pi \grave{\nu} \nu\) єủáv \(\delta \rho o \iota \sigma \iota ~ \sigma \nu \mu \phi о \rho a i ̂ s ~ \pi \rho \epsilon ́ \pi \eta \eta\) ．

Deck them with robes of honour crimson－dyed， And let the torch－light move，that so the land May find this company＇s good will henceforth Marked in her manhood＇s excellence and worth．
Good will is the relation，friendliness and sympathy－not love．нє́тоィкоь usually were regarded with disfavour，at the most with tolerance．But on

\footnotetext{

}
this occasion all the inhabitants of Athens were united in a common senti－ ment－peace and good will to all men that abode beneath the shadow of Athena＇s wings．Not фi \(\lambda o s\) ，therefore，is the adjective，but \(\epsilon \ddot{\nu} \phi \rho \omega \nu ; v .993\)



The phrase cúvívסpoı \(\sigma \iota\) ovرфорaîs has caused some stumbling：Paley renders it＇may henceforth be noted for（causing）circumstances favourable to the life of men，＇and Liddell and Scott in the same way，＇prosperous to men＇； Mr．Sidgwick，＂＂may shine forth with prosperons blessings，＂rather emphatic and unusual phraseology．＇Wecklein understands it better，＇durch das Gluick， dass das Land wackere Minner besitzt，＇comparing кад入ítaья то́т \(\mu\) оs in
 ＇by єúavopiaus resulting＇or＇befalling，＇exhibitions of fine manhood：

 in Xen．Mem．iii．3． 12 Socrates says oủ \(\delta\) ’ єủav \(\delta \rho i ́ a ~ \epsilon ̇ \nu ~ a ̈ \lambda \lambda \eta ~ \pi o ́ \lambda \epsilon \iota ~ o ́ \mu o i ́ a ~\) \(\tau \hat{\eta}\) є̇v \(\partial\) á \(\delta є ~ \sigma v \nu a ́ \gamma \epsilon \tau a \iota\) ．The phrase，therefore，is apt and intelligible enough without any further allusion．But with the Panathenaea once suggested to him，what Athenian citizen could have failed to think of one？Among the special ceremonies belonging to that feast，none was more familiar than the єv̉avopia，\({ }^{9}\) which I may describe in Mr．Purser＇s words（Smith Dict．Ant．Art． Panathenaea）：
 by which the leaders of the procession were chosen．It was a \(\lambda_{\epsilon \iota \tau o v \rho \gamma i a, ~}^{\text {a }}\) ［Andoc．］in Alcib．\(\$ 42\) ，and he who performed it chose out of his tribe a certain number－perhaps about twenty－four，the number of a chorus－of the tallest and best－lonking members，and arrayed these with proper festal garments．＇

Then follows the procession with its flaming torches and its paean in dactylic metre and its ò \(\lambda \frac{\lambda}{}{ }^{\prime} \gamma \mu a \tau a\) ，reminding us of the Panathenaic mavyv孔＇s with its torch－race，and its paeans（Heliodor．i．10），and its ò \(\lambda о \lambda \dot{\gamma} \gamma \mu a \tau a\) of women（Heraclid．777）：
\[
\begin{aligned}
& 1033
\end{aligned}
\]
є \(\dot{\phi} \phi а \mu \epsilon i ̂ \tau \epsilon ~ \delta \grave{\epsilon}, \chi \omega \rho i ̂ \tau a \iota . ~\)

March onward and come where good will shall estate you，
Dread Children of Night，in the pride of your dower－
Let all the people refrain their voice！

\footnotetext{
\({ }^{9}\) Michaclis Parthenon p． 326 （where the loci for the l＇amathenaea are quoted in full），Her－ mann Alterthümer（1858）ii．p．358－67，August Mommsen Feste der Stadt Athen pp．66，101－4．
 lauer＇s reading，generally adopted，\(\beta \tilde{a} \tau \in \delta \delta \mu \psi\) ，is not Greek．Aeschylus－if he had tolerated such an ugly jumping rhythm－would have said Bãte סóuov or \(\delta \delta \beta\) ous．I believe that
}

B \(\ T \in N \triangle O M \omega\) was a mistake for \(B d\)－ \(T \in O \triangle O N W\) and that Aeschylus is using the same formula that Sophocles uses in setting forward a procession to Athena＇Eprá⿱亠乂（at the

 \(\chi \in \epsilon \rho \bar{v} v a \xi ̆ \lambda \in \omega \dot{s}\) ．

Where in Earth's immemorial dark caverns await you
1)rink-offerings and burnt, adoration and power.

Let all the people refrain their voice :
Now in his Heortoloyic (1864) p. 171 August Mommsen had already seen reason to infer that these conchuding ceremonies were designed with reference to the Panathenaic mavovxis. He says on p. 171 : Wie dem Tags auf der Burg zu bringenden Opfer und dem Festzuge nïchtliche Religionsgebriache vorangingen, so durften auch dergleichen auf dem Areopag stattgefunden haben; deun auch hier fand ein Opfer (Rangabé 814) am Sichttage der Pauatheniien engsten Sinnes statt, wie denn von einem Festzuge fiur die Semnen die Rede ist, an dem kein Sclave theilnimmt; Philo de praest. libert. p. 886 B ; G. A. 62, 37.'

With this note:
'Vielleicht bezieht sich der Schluss von Aeschylus Eumeniden zum Theil auf Cultushandlungen der panathenaïschen Pannychis. Die riacherischen Gottheiten ergreifen Besitz von den Tiefen der attischen Erde unter dem
 \(\sigma \tau o ́ \lambda o s ~ \pi \rho \epsilon \sigma \beta u \tau i \delta \omega \nu\). Der wierlerholte Ruf des Eumeniden-Geleits ò \(\lambda o \lambda u ́ \xi a \tau \epsilon\) \(\nu \hat{v} \nu \epsilon ่ \pi \grave{\imath} \mu o \lambda \pi a \hat{\imath} \mathrm{~s}\) erinnert an die (panathenaïschen) ỏ \(\lambda o \lambda v ́ \gamma \mu a \tau a\) und \(\mu \circ \lambda \pi a i\) ans Euripides. Orestes der Muttermörder muss an einer \(\phi \theta \iota v a ̀ s ~ a ́ a ́ ́ \rho \rho a, ~\) vielleicht gerade an der \(\tau \rho i \neq \eta \phi \theta_{i}{ }^{\text {inovios, }}\) vor den Schranken gestanden haben. -Das eigentlich religiöse Hochfest der Panathentien wird von der Hieropüen verwaltet; unter Hieropüen giebt es auch fiir die Semnen; in Demosthenes Zeit freilich drei besondere fiir die Semnen (21, 115), während man erwarten möchte, dass dic Hieropöen, welche eine zahlreiche Behörde waren, den Dienst der Athena und der Eumeniden zugleich besorgten. Im Festjahr der Athener ist nicht leicht cine passendere Stelle zu finden als die Panathenaien, um den Semnen-Cultus einzuweisen.-Derselbe wird damit nicht mit der Athena-Religion in dem Maasse vereinerleit, dass er nicht an ein besonderes Geschlecht geknüpft bliebe, welches mit der Religion der Athena nichts gemein hatte. Dies besondere Geschlecht war das der Hesychiden, Polemon fragm. ed. Preller p. 91.'

In the later work, the Feste of 1898 , this note is not repeated ; after saying on p. 106: 'Die Juchzer der Mïdchen-ỏ入oдú \(\mu \mu a \tau a\) bei Euripides [Hcracl. 777]-beruhten wohl auf sehr alter Sitte. Es mügen Worte des Herbeirufs oder des Willkommens gewesen sein, kurze Litaneien, die von der Priesterin vorgesprochen wurden, dass die Miidchen sie nachkreischten,' he adds in the note merely: 'Wohl unter Instrumentalbegleitung; Aeschyl.


I was not aware of Mommsen's view when Photins' remark about the crimson cloaks of the \(\mu\) є́тоькоь set me on the track of the Panathenaea, and I was made acquainted with it by a mention in Mr. Purser's article. Here then are two opinions, starting from quite different points, and converging independently towards the same conclusion. What I think is that the whole of this procession was desigued by Aeschylus as a reflection of the great

Panathenaic, which was held in honour of Athena, and in which both burgesses and denizens took part in amity; and that the treatment of the Eumenides is borrowed from the symbolic treatment of the \(\mu\) ќтоוкоь at that feast. It was his way, when he had conceived a parallel, to work it out elaborately; and with this clue to start from there are other points where we may find a purposed correspondence. Thus it is possible to see a double application in 0.991 :
\(\epsilon \epsilon \kappa \tau \hat{\omega} \nu \phi о \beta \epsilon \rho \hat{\omega} \nu \tau \omega \bar{\omega} \delta \epsilon \pi \rho \circ \sigma \epsilon \epsilon \rho \pi \sigma \nu{ }^{11}\)


 ó \(\theta\) обіккатор


How apt their wisdom is to leam Good language! In these Shapes of fear
Much gain and vantage I discern In store for all my Burghers here :Yield them great honour, keep good will

Between you, and your land shall be
A star among the nations still
For just and righteous polity.
Athens, from the time of Solon, cultivated and encouraged the \(\mu \in \tau о i к о и я\). a policy, as Grote shows (History of Grecee, Part II c. xi), of capital advantage to her, 'since it determined not merely the extension of her trade, but also the pre-eminence of her naval force.' Later Greek writers plainly recognise the value of them as a source of wealth: Xen. de vect. 4. 40 ö \(\sigma a \delta^{\prime} a ̀ v\)
 каіे є’ \(\mu \pi\) ópovs. . 'If we melie peace,' says Isocrat. de pace p. 163 c, ó \(\psi o ́ \mu \epsilon \theta a\)


 It was a wise imperial statesmanship that Lysistrata, the Peace-maker,




\footnotetext{
\({ }^{11}\) My suspicion of the MS. \(\pi \rho \sigma \sigma \omega\) т \(\pi \nu\) comes short of being certainty, but I am sure that my \(\pi \rho o \sigma\) ép \(\frac{1}{0}\) deserves more consideration than it has received. Latin, I know, often speaks of the Furiartm ora, but Greek here I feel should say, not from these drendfu? visages, but from

 theirs in Orph. hymn. 69, ठєtvêtes O.C. 84, tàs
 \(\ell^{\ell k} \tau \bar{\omega} \nu \phi о \beta \epsilon \rho \bar{\omega} \nu \tau \omega \bar{\nu} \delta \varepsilon\) therefore should lre from
}
these drcaulful crratures ( \(\phi о \beta \in \rho a l\) кofat they arr called in Orph. h. 68), т \(\omega \nu \delta \epsilon\) meaning the Erinyes themselves, as in 993, 973, 931, 936.
 wanted, like кal бol \(\pi \rho \circ \sigma \epsilon \in \rho \pi \sigma \nu ~ \tau o u ̂ \theta ' ~ \delta \rho \hat{\omega}\) in
 especially of time coming on, or what time has in store. A participle is not indeed necessar!! with кép \(\delta\) os \(\delta \rho \hat{\omega}\), but Heyse had already desideratod one, suggesting that after \(\delta \rho \bar{\omega}\) we shoull read \(\pi \rho \circ \sigma a \pi \alpha \nu \tau \bar{\eta} \sigma o v\).
'ay, and all the colonies as well, draw all these scattered strands together into


Applied to the human \(\mu\) єтoiкоиs, then, Athena's words would mean, If you cncourrege \(\mu \in t o i к о ⿱ s\), and foster velations of mutual good will, you will not only find in them a source of material profit, lut they will melie your sume renowned throughout the world for justice and protection of the foreigner -that סiка \(\xi_{\text {єvaןкís for which Pindar so often praises Aegina, and which }}\)
 \(\pi \lambda o v i t o v ~ i s ~ t h e ~ r e p l y ~ o f ~ t h e ~ E u m e n i d e s, ~ B e ~ y e ~ g l e u l ~ i n ~ r i g h t c o u s n c s s ~ o f ~ w e u l t h, ~\) not gotten by oppression and extortion: those are terms in which the \(\mu\) е́тоוкol, recognising their just treatment, might well have returned thanks. Athena then repeats her comsel :
 \(\pi \epsilon ́ \mu \pi \epsilon \iota \nu \pi o ́ \lambda \epsilon \omega \varsigma\) є̀ \(\pi i ̀ ~ \nu i \kappa \eta\). \(\dot{v} \mu \epsilon \hat{\imath} S \delta^{\prime} \dot{\eta} \gamma \in i \quad \sigma \theta \epsilon, \pi o \lambda \iota \sigma \sigma \circ \hat{\imath} \chi \circ \iota\)
 \(\epsilon \not ̈ \eta \delta^{\prime} \dot{a} \gamma a \theta \omega \bar{\omega} \nu\)


Keep, all harm in durance penned, And all gainful blessing send, To give her victory. Come then, Cranaus' ancient seed, My Citizens, my Burghers, lead And bring these Dwellers on their way, Still keeping in your hearts, I pray, Good will and charity !

There is so much insistence on the word тımás, the rights and honours to be granted them in Athens ( \(827,858,870,885,895,1033\) ), that if this double application was intended, it would seem that the \(\mu\) е́тоькоь at this time in Athens were a class enjoying civil rights,-not those, of course, belonging to full citizens, but more than those of wholly-unenfranchised \(\xi \in \dot{\xi}\)

Our interest in the Panathenaea hitherto has been owing mainly to another work of art, the sculptures of Pheidias on the Parthenon. Henceforward, when we read this last scene of the Eumenides, we may find, I think, a new occasion to recall that splendid pageant.

Walter Headlay.

\footnotetext{
\({ }^{12}\) All these references I owe to Mr. A. H1. Cooke's article Mrtocii in Smith's Dicl. Ant.
}

\section*{A NEW REPLICA OF THE（IIOLSETL－AOUFFIER TYPE．}

TuE central photngraph shewn on p．27！is of a fragment now in the cont－ yard of the Terme Muscum in Rome，but umpublished as yet in the cataloguc． The material is a white coarse－grained marble probably of Greek origin，and the fragment represents the right leg（Stendlutin）of a standing male figure， and the trunk of a tree which supports it．Against the trimk，and at the side of the leg，is a quiver with conical lid，slung by a strap over a projecting branch． The foot is missing from the centre of the ankle－bone，and the upper line of breakage runs from the hip－bone inwards and downwards to the junction of the legs．From this point to the ankle the fragment measures \(67!\) centi－ metres，so that it is approximately life－size．There is a pmetello in the middle of the thigh on the outside．

The workmanship is excellent，and belongs in style ummistakeably to the middle 5th century．Fortunately we have no difficulty in restoring the whole statue，as the comparison with the legs of the Choiscul－Ciouftier Apollo and the＇Apollo on the Omphalos，＇which are here shewn side by side with the Terme leg，leaves no reasomable doubt that our fragment belongs to another， and a very fine，replica of that well－known type．Compare the prominent muscular swelling just above the knec－cap and the course of the same muscle along the inner line of the thigh，the hard sinewy treatment of the leg and the stiff rounded thigh，the profile of the knee and the broad groove which separates calf and shin bonc，and the identity of original becomes evident at once．

I give hare the measurements at the points indicated beside the photo－ graph of the＇Terme fragment，and at the corresponding points in the two other statues．
\begin{tabular}{|c|c|c|}
\hline Lav：IN Tende：Mcspuy バ Rowe． & \begin{tabular}{l}
Lation Chonsevi－Goupfore \\
Apolion in Bhitesh \\
Museum．
\end{tabular} & Lase of ‘ Arebsom the： Ombialos＇in＇emteal． Museum．Atheas． \\
\hline 人－A 365，m． & －36 III． & 36 m ． \\
\hline  & ．25 311． & 21 m ． \\
\hline C－C＇ 67511. & －60\％m． & \(\cdot 6711\). \\
\hline
\end{tabular}

A head＇of the same type is also in the Terme Muscum，but the material is a finer closer－grained marble，and therefore it has probably no connexion with the leg．

\footnotetext{
 of Sita Francescal Lomana．
}



This fragment is important for two reasons. With the possible exception of the Athenian replica it is by far the finest in workmanship of the many examples of this type-the delicacy of the surface and the smooth modulation of the muscles is apparent even in the photograph-and, what is of especial interest, it gives us an attribute, in the quiver, which provides valuable evidence for the meaning of the statue, a point on which controversy still exists." In other replicas we have cither the tree-trunk (Choiseul-Gouffier) or the quiver (Torlonia); here we find the two conjoined, and thus the view that the quiver was a merely fortuitous and unmeaning support is disposed of. In a position where it is not needed for support it can only have a significant meaning. It is hard to see that this meaning can have been other than to show that Apollo was here to be recognized. There are now therefore four replicas of the type with Apolline attributes, for, in addition to the quivers of the Terme fragment and the Torlonia statue, the Ventnor head in the British Museum possesses the long locks of the deity, and the Cyrene head, also in the London collection, was found in a temple of Apollo.

As regards the comexion of a quiver attribute with Apollo it is necessary to remember that the support of the Delian Diadumenos in the Central Museum at Athens has also a small quiver slung over a branch. Miss McDowall in the J.H.S. for 1904, p. 204 , argued that this proved that there was no necessary connexion between a quiver support and Apollo. Hauser on the other hand in the Jahreshefte for 190.5 (vol. viii. p. 4.2) maintained that it proved that the statue of the Diutumenos represented an Apollo. Löwy in the following number of the same journal (vol. viii. p. 269) denied the necessity of this connexion, but explained the presence of the quiver as a natural object for representation in a Delian workshop. It is also of course possible to contend that the use of a quiver in this statue implies an adaptation of the athletic portrait to a divine type. Until the subject of copies and their attributes is more fully treated we cannot hope to have full light on such questions, but where we have no proof to the contrary, it will be very hazardous to reject the evidence of the quiver in this Terme fragment and its replicas as a deliberate device of the copyist for recognition of the deity.

In conclusion I wish to thank Mr. Wace of the British School at Rome, who was kind enough to take the photograph of the leg here published, and Dr. Rizzo, director of the Terme Museum, without whose ready co-operation the photograph could not have been taken at all.

\author{
Guy Dickins.
}

\footnotetext{
- Dr. Waldstein's view that the statue is an athletic portrait (J.II.S. vol. i. 1. 168) has heen answered by Furtwingler (Roscher's Levicon, i. p. 155), A. II. Smith (1,.1. C'rt. of
}

Sculptıre, vol. i. P. 85, No. 209), Schreiber (Ath. Mitth. ix. 1. 248), and others, who maintain that it is a statue of Apollo.

\title{
TWO BRONZE PORTRAIT' FROM EGYPT.
}

\author{
[Plate XVIII.]
}

T'ue bronze statuettes which are reproduced on Pl. XVIII. form part of the small collection of Greek and Roman antiquities in the Egyptian department of the British Museum. \({ }^{1}\) They are practically entire, though the surface of the bronze has suffered considerably from oxydization. I am much indebted to the authorities of the Museum for allowing me to publish two such interesting pieces.

The provenance of the two bronzes is indicated by their place in the Museum : they come from Egypt. It is evident too that they have been made as a pair. At first sight they might be taken for Olympian deities, but looking more closely one sees that the heads are intended for portraits. They must therefore represent a deified king and queen, and there can be little doubt as to what royal couple they do represent. The male figure is Ptolemy Philadelphus and the lady is his elder sister and second wife, Arsinoe II.

The king stands in an easy attitude, his right hand resting on a long sceptre or spear. In his left arm he holds the club of Herakles. He wears cothurns, and his head is covered by a cap consisting of the skin of an elephant's head. The features, the short whiskers and the hair round the forehead are exactly the same as on the coins (cf. especially B.M. Cat., PI. VII., No. 5). The elephant-cap is a significant attribute. It is the characteristic headdress of Alexander the Great on the early coins of the Ptolemaic series, and in later times it became the distinctive mark of the city-goddess of Alexandria. For the ruler of the new state of which Alexander was the founder it was therefore an appropriate symbol. And if the elephant-cap means that Ptolemy claims to be the rightful successor of Alexander, the club which he carries in his left arm reminds us that he counted descent from Herakles. \({ }^{2}\) In the eulogy of Thedcritus, xvii, 13-33, it is with the same pair of heroes, Alexander and Herakles, that his father Soter is

\footnotetext{
\({ }^{1}\) Nos. 38442, 38443. Mr. H. li. Hall kindly supplies the following details: Height of P'tolemy 1 ft . \(3 \frac{1}{2} \mathrm{in}\). ; of Arsinoe 1 ft .2 in . They are apparently hollow cast, but it is not possible to say whether each figure was made in one
}

\footnotetext{
piece or several. The pupils of the eyes are ineised. The object langing from Ptolemy's arm might be either a lion's skin or a cloak.
\(\because\) See the begiming of the Adule inscription (c.g. Mahaffy, Hist. of Ey. p. 105).
}
associated．It is also possible that the cothoms are intended as a mark of afffiliation to Dionysos，is very popular deity in Alexandria and one with whom the Ptolemaic family claimed some relationship．

The face of the yueen is too much damaged to be used for comparison with the coin－portraits．Her hair is arranged in the usual fashion（though this is not quite apparent in the photograph），and is surmounted by a low stephane．She wears shoes．The drapery，which consists of a sleeveless chiton and a rather tightly drawn mantle，showing the contours of the body， should be contrasted with that of the more matronly figure on the faience vases．＂The sceptre which she held in her right hand was in all probability not the papyrus－sceptre of Egyptian queens，but one of the same type as those which appear on Ptolemaic coins．There is indeed nothing Egyptian in either of the two statuettes．The double cornucopine which rests in the queen＇s left arm is a well－known emblem on her coins（B．M．Cett．Pl．VIII．）． Athenaeus tells us that it was first invented as an attribute of the statues of Arsinoe in allusion to her riches and generosity \({ }^{4}\) ；her horn of blessings，as it were，held double．The flattery is in much the same spirit as a passage of Theocritus in the poem already referred to ：－

\section*{
}

Portraits of the Ptolemies are by no means common，and any addition to the list is welcome．\({ }^{5}\) But it is as whole－figure portraits in the round that the two bronzes are chiefly interesting．Small as they are，they give us a good idea of the character of Greek statues of the \(\theta \epsilon o i \dot{c} \delta \delta \epsilon \lambda \phi o i\) ，of the mixture of realism and glorification which such works required．The stolid，human features of the king in particular make an orld contrast with his heroic pose and the symbols of divinity with which he is loaded．In this respect，as well as in mere style， the bronze in question is very different from another work of the same order， the Lysippic statuette of Alexander with the spear，a figure which is heroic all over but which belongs to an earlier stage of art when faithful portraiture was not one of the things demanded of the court－sculptor．

C．C．Eipgar．
M／ルスsomティh，July 20， 1906.

\footnotetext{
：E．\％Wallis，E！！Corremic Ar\％1o．50，Fig． 10 ：3．
\({ }^{1}\) xi． 497 ．The context and the monuments combine to show that it is the סiккерas and not the：simple кépas of which lie is speaking．





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 фá入入oss oútws
 \(\pi a ́ \nu \tau \epsilon s\) oi \(\tau \in \chi^{\nu i \tau a t . ~}\)
 Вибıлє́ \(\alpha\) т \(\alpha є є \mu\) ．
；A list，which might he considerably en－ harod，is given by Mr．Wace in J．H．s．， 1905 ， 1． 90.


\section*{NOTE ON THE ATALANTA OF TEGEA.}

When writing about the Atalanta of Tegea in the earlier part of this volume (pp. \(169 \mathrm{sq} \mathrm{\%}\) ) ) I stated my impression that I was not the first to have made the observations which I there recorded; but I overlooked the fact that Prof. Furtwangler's opinion, which in essential matters accords with mine, had already been published in a footnote to an article by Dr. L. Curtins in the Jahorluch des Ki. Dentsch. Insl. xix. p. 79. \({ }^{1}\) There is, however, the less to regret since my article has given occasion to some further notes on the subject by Prof. Furtwingler, which he has published in the Sitzunysherichte of the K. Bayer. Akademic, 1896 , pp. 383 sq\%. I have to thank him for a copy of these notes, which give a fuller account than before of his observations and the inferences to be drawn from them. His visit to 'Tegea, at which his notes were made, was in March 1904; mine was in April of the same year; and so lis observations have the priority, though I had, of course, no knowledge of them either when I examined the sculptures at ' ''egea, or when I wrote down my results for publication ; it is a matter for great satisfaction to find them confirmed by so eminent an authority. As the Bavarian Sit:ungsherichte may not be accessible to all readers of the Hellenic Joumal, it may interest them to hear that Prof. Furtwingler thinks the probability of the head belonging to the torso depends not only on the similarity of marble, of weathering, and of general appearance, but also on the extremely beautiful effect of their combination. He would, however, explain the difference of material from the heads already known, not as I have done, but by supposing that all the figures of the eastern pediment, except the boar, were of large-crystalled (Parian) marble, and that all the heads and other fragments in the inferior local (Dolianit) marble come from the western pediment. It is impossible to decide this and other questions without a more systematic study and publication of all the extant remains of the sculpture. Such a publication by the French excavators will be awaited with eagerness, in view of the extraordinary interest of these sculptures for the history of art. It is to be hoped that they will include a photograph of the head and the torso of Atalanta combined, if only as an experiment: the combination from the published photographs which I have given in the Journal is of course only to be taken as a provisional and in some ways unsatisfactory expedient.

\section*{E. A. Gardner.}

\footnotetext{
\({ }^{1}\) The head is also referred to by Dr. Amelung in the text to Brunn-Bruckmaun's Denkmäler, Nos. 583-584, p. 7, n. 16. More recently an
}

\section*{A STATUETTE FROM NORWAY.}

The British Museum has recently acquired a small bronze statuette, which is of some interest, not for its artistic merit, but for the probable place of its discovery. The statuette, \(2 \overline{5}\) inches high, represents a woman, who is dressed in a long chiton, which folds over so as to form a sort of cape and has short sleeves, leaving the arms bare from above the elbows. She is standing with her feet close together and holds her skirt with her left hand

in the familiar 'Spes' attitude. Part of the left foot and the right arm from the elbow are broken away. Her hair falls in long tresses over her neck and shoulders, and is indicated by incised lines. Another incised line seems to represent a necklace.

The style of the figure is very rude, and it has been much injured, but it seems to show considerable likeness to the art of Ionia, and may perhaps
be the work of an Italian craftsman, working under Ionian influence. It can scarcely be later than the last quarter of the sixth century b.c.

The statuette was found in the shop of Mr. Hammer, a dealer in old silver, at Bergen in Norway. It lay neglected in a drawer among snuffboxes and other objects of recent date, but with it were three fibulae of the leech-type, ornamented with incised chevrons and concentric circles and corresponding to Montelins, Ittelic Primitive, Pl. VIII. No. 87. Fibulae of this type might safely be assigned to about the same date as that given above to the statuette. Mr. Hammer believed, though he was unfortunately not quite certain on the point, that these four objects had been brought to him a few years ago, and that they had been then recently excavated in the neighbourhood of Bergen. Their provenance is not therefore proved, but the homogeneity of the assumed find makes it at least not impossible.

If it be assumed that statuette and fibulae were found in Norway, some interesting questions are suggested. Imports from Italy are fairly well known in Western Europe, and a considerable list can be compiled of Italian fibulae, which have been found in England. \({ }^{1}\) But in the North such finds are rare, and even products of the Bronze Age of Central Europe do not commonly occur in Norway.

The only suggestion, which occurs to me, is that the four objects contained in the assumed find drifted up to the neighbourhood of Bergen as the result of the trade in amber. \({ }^{2}\) The trade with North Italy in amber began as early as the period of the Lake D wellings, and it was Hourishing between the eighth and the fifth century b.c. At that time the amber came from the coasts of Jutland and not, as at a later date, from Pomerania, which is now the centre of the traffic. From Jutland to the south of Norway is not an incredible voyage for a sailor of the sixth century, and that may have been the course followed by the statuette and the fibulae. The suggestion is a mere conjecture. The find is an isolated find, and it is not certainly attested, but it seemed possible that the discovery in Norway of a work, however humble, of archaic Greek Art might be of some interest to northern archaeologists.

\section*{A. H. S. Yeames.}

\footnotetext{
\({ }^{1}\) Sce a paper on this subject by Prof. Rilgeway and Mr. Reginald Smith in the forthcoming part of the Procecdings of the Socicty of Anti-
}
quarics.
\({ }^{2}\) See Sophns Müller, Nordische Altertems. Runde, i. P. 316 ff .

\section*{FliESH EVIDENCE FOR T.}

Since the appearance of my article T'sade ant Sampi in the preceding issue of this journal, a discovery highly important for the history of 'Tsade ' has been made in the course of excavations at Ephesus by Mr. D. G. Hogarth, to whose kindness I owe the following information.

On a silver plate found in the primitive stratum of the Artemision, below the Croesus temple, there is an inscription in which \(T\) occurs thrice, in the words \(\tau \epsilon \in T a \rho \in \varsigma\) and \(\tau \in T a \rho a ́ Q o \nu \tau a\) forming part of sentences in Ionic Greek.

The position of the objects found in relation to the Croesus temple makes 550 B.C., the beginning of the reign of Croesus, the absolute terminus of date on the lower side: there is, I understand, little doubt that the inscription belongs to the latter purt of the 7the century B.C.

Apart from the great value of so old a document to epigraphy and archaeology in general, its importance for the history of T lies in the following facts :
1. It is the oldest occurrence of \(T\) as a sibilant.
2. It occurs in ordinary words of Ionic Greek (not in a place name, nor in a foreign word in Greek characters) ; and it is the only extant instance of independent authority.
(Sce my article p. 344 ct sqq.)
3. It is a quite reliable reading, confirming other readings hitherto not quite sure (ep. ibid.), viz. those of the Halicarnassian
 'OaTáTıos, MavváTıos; and those of the Teos inscription I.G.A. 497 B 22, 23, \(\theta a \lambda a\) á \(\eta s\)-both inscriptions being of the fifth century B.e.
t. It agrees with these and the META coins, D.M.C'. Mesambria, pp. 132, 1333 (4th-2nd cent. B.c.), in making \(T=\) Ionic \(\Sigma \Sigma\); and having a phonctic value which I take to be dental-sibilant, perhaps \(=\) modern \(t s\) or \(c l e(G e r . z\) or tsch). I have explained (ilucl. pp. 346, 347) some reasons for supposing that there was a dental element as well as the sibilant in \(T\); and the Ephesus plate gives a fresh suggestion in the peculiar doubling of Tau in each of its occurrences after \(\kappa\) or \(\chi\), even over the separation of two words, thus EKTT \(\Omega N\) and EKTTO \(\triangle O P A T O \Sigma\). I
suspect a linguistic phenomenon resembling the Eurasian chi-chi.
5. It agrees with the eviderice already cited (ibid. pp. 347, 348) to show that the area of provenance of the sibilant \(T\) is confined to two districts associated by intercourse and colonization, both using \(T=\Sigma \Sigma\), viz. the Jonian sea-board of Mysia and Lydia (in particular the towns 'Teos, Halicarnassus, Ephesus, Miletus) and the Pontic coast of Thrace (Mesambria and probably Apollonia, Istrus, Odessus). It still leaves manswered the important question whether this \(T\) was carried to Ionia from Thrace, or whether it was brought back from Thrace to Ionia.

As regards \(T\) the episemon, I am indebted to notes kindly sent me by M. Svoronos and Freiherr Hiller von Gaertringen for some additional references.
M. Svoronos points out that in addition to the list given in my article pp. 342 sqq., \(T\) occurs also on some bronze tesserae used as symbola of the theatre of Dionysos at Athens, and datable 343-338 13.C. Sce his Journ. Intern. d'A Archéol. numismatique (Athens), vol. i. p. 46, no. \(9 a-\delta\) with plate \(\Gamma^{\prime}\) по. 9 ; p. 46. no. 30 with pl. \(\Gamma^{\prime} 32\); p. 52 no. 71 with pl. \(\Delta^{\prime} 32\).

These are thus perhaps the oldest instances extant of the numeral \(T\).
I do not readily agree with him in reading the E in \(\mathrm{pl} . \Gamma^{\prime}\) no. 1 also as a T placed on its side by error in arranging the plate for photography. Its shape is different, the inequality in the lengths of the three parallel bars which usually distinguishes \(T\) being absent from this \(E\). Plates \(\Delta^{\prime} 4\) and \(\Gamma^{\prime} 17\) show a character \(\pi\) which reminds one somewhat of the Rhodian character \(\mathrm{T}^{\prime}(=900)\), to which Freiherr Hiller von Gaertringen calls my attention as 'noch jiinger als Kern Inschr. Magn. 100.' This is of the first century b.c. See I.G. xii. 1, 913 ( \(=\) I.G. Insul. i. 1, 913) and p. 207 addenda.
M. Svoronos also gives an interesting reference to a note of his \(J\). Intern. l'Arch. num., p. 114, no. 1, which suggests that the true place of \(T\) in the numerical alphabet may have been between \(\Sigma\) and T , as agreeing with an exceptional value of the episemon which he has found. Perhaps I do not quite understand the application, but why тò \(\sigma \pi\) á \(\nu \iota о \nu\) каì \(\pi \in \rho i \in \rho \gamma\) о \(\sigma \tau o \ell \chi \epsilon \hat{\imath} o \nu \mathrm{~T}\) ? I note with agreement that he thinks T , the sibilant, is equivalent either to double Sigma or to double Tau-a sidelight on the question of a dental phonetic value.

As regards the later Sampi, I find that Ulfilas in his adaptation of the Greek alphabet for the writing of the Gothic language in the fourth century A.D. took over \(T=900\) (in this form) along with the rest of the numeration alphabet.
H.S.-VOL. XXVI.

\author{
F. W. G. Foat.
}

\section*{SODOMA'S COLLECTION OF ANTIQUES.}

While the painter Sodoma was lying ill at Florence, in 1529, his pupil, Girolamo Magagni, nefariously removed from his master's studio a number of objects, a list of which is set forth in a docmment formerly in the Archivio Notarile at Siena, but now lost. The document, which is an acknowledgment of the return of these objects, was printed by Milanesi, \({ }^{1}\) and is repeated by Mr. R. H. H. Cust in his exhaustive work on Sodoma. \({ }^{2}\) But as it is nevertheless likely to escape the notice of the classical archaeologist, it seems worth while to extract from the list the descriptions of those objects which were certainly, or may possibly have been antiques. It is perhaps incorrect to speak of the objects as a collection; they were rather a few odd pieces picked up as useful models by a painter who owed more of the qualities of his style than is generally recognized to his appreciation of antique sculpture.

Of the objects enumerated below some of course may have been merely contemporary reproductions of antiquities; others, like the woman's foot, neither antique nor copy of antique.
‘Uno Appolline di bronzo di gitto . . .
Una tegola con impressioni di due animali senza gambe, di terra.
Uno piè di femina intero, di marmo.
Un mezo piè di femina intero, dove somo le dita.
Una testuccia di vechio senza naso, di marmo.
Una testa di lione ch' à manco una mascella.
Una testa col busto di donna sanza naso, di marmo...
Uno coupo di marmo senza braccia et gambe . . .
Una testa di puttino di terra in profilo.
Uno piè di marmo rialto che si pusa con la puncta de le dita.
Un altro piè di marmo, qual posa tucto.
Due pezzi di vasi di terra cotta uno, et uno di gesso formati a l'antiquo . . .

Uno ignudo di terra cotta senza testa antiquo con una coscia sola . . .
Una tegola di terra antiqua drentovi uno Mercole con uno toro et una donna con polli in uno bastone .. .'

The Inventory of (Goods left on Sodoma's decease (Cust, p. 337, No. 31) merely mentions 'Più teste et antichaglie' in his house and ' 30 pezi fra

\footnotetext{
 'Tom. IIl. No. 56 [1. 301-306).
}
teste e piei ne lo studio,' some of which may have been identical with the pieces above described. Of the former the most interesting is the last in the list. Its nature is not at first sight obvious, thanks to the naïveté of the description; but a reference to Campana, Ant. Opere in Plastica, Pl. LXI., shows that it is one of the well-known terracotta wall-plaques; that the 'woman with chickens on a stick' is really Winter carrying a pedum from which depend a hare and a couple of birds (in her right hand she carries a boar); and that 'Mercole con uno toro' is Hercules carrying a bull. The nature of the other objects it seems hopeless to attempt to ascertair, although 'the tile with impressions of two legless animals' may possibly have been a terracotta relief of the same class as that identified above. The nearest approximation to such a design is furnished by the reliefs with satyrs riding on panthers." On these the panthers have, it is true, fore-legs, but their bodies terminate in conventional floral omaments, and the absence of hindlegs would perhaps justify the description in the list.

\author{
G. F. Hill.
}

\footnotetext{

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\title{
NOTICES OF BOOKS.
}

The Hibeh Papyri. Patt I. Elited, with 'ramslations and Notes, hy lb. l'. Grenfelid and A. S. Huxt. Lomdon: Enypt Exploration Fund, 1906. P1。xis+410. 10 plates. 45):

The new pullication of the (iraco-Roman Brancla of the Esypt Exploration Fiund (a double volume, issued to subscribers for 1904-5 and 1905-6) contains a selection of the texts recovered by Drs. Grenfell and Hunt from paprus-cartonnages obtained loy them in 1903 from Hibeh, a village on the east bank of the Nile, formerly in the southern part of the Heracleopolite none. \(A\) hundred and twonty-one texts are printed in full, of which twentysix are literay; and descriptions are given of fifty additional papyif, all documentary. All belong to the thind cent. B.C., and most to the first half of it. As is natural, considering their origin, many of the papyri are fragmentary, and this is especially the case with the literary texts, which are mostly small in extent. Of the eighteen hitherto mknown texts, the longest is two brad colmuns of a treatise on music, which Blass assigns conjecturally to Hippias of Elis. Among the others may be mentioned an introduction, in trochaic tetrameters, to a follection of \(\gamma^{\nu} \omega \mu a t\), which names Epicharmus as its author; fragment of tragedies, conjectured by Blass to be the Tigro of Sophocles and the Ooncus of Euripides; and portions of the oration of Lysias arsainst Thenzotides. The fragments of extant classical authors include portions of four MSS. of the lliad and one of the Odyssey, all containing additional verses to those of the vulgate. This phenomenon, which appears in all papyri of the third cent. B.c. hitherto discovered, is discussed at some leagth ly the editors. The longest literary MS. contains portions of eighteen columns of the Rhetoried ad Alesculdrm, and makes the fouth-century date of that tratise practically certain, thus supporting its attribution to Anaximenes. The non-literary texts include an astronomical calendar, compiled in the Saite nome, and a quantity of official and private documents, which contain it consideralle amount of economical and administrative data. Three valuable appendices deal with (1) the Macedonian and Eryptian calendars, (2) the systems of dating by the years of the king, and (3) the eponymons priesthoods from 301 to 221 B.C. The intices are on the usual full scale; and the ten plates include representations of seventem literary MSS., the astronomical calendar, and six dated documents, ranging from 301 to 262 B.c. The editors acknowledge considerable assistance from Prof. Blass in respect of the literary texts and Prof. Smyly in the non-literary texts and the appendices.

Essays on Four Plays of Euripides. By A. W. Verrall, Litt.D. Camhridge: University Press, 1905. Pp. xii +292 . 7s. \(6 d\). net.
The theses maintained in this volume by Dr. Verrall are : (1) that the apparent inconsistencies and incoherences of the Andromache are clue to the fact that it is sefulel, and that the spectators knew that the action of Menelaus and Orestes was part of a prearranged plot to detach Hermione from Neoptolemus and force her into a marriage with Orestes; (2) that the Helen is a sort of mock tragedy, performed at a private theatre belonging to a wealthy widow on the island of Helené, oft Atticil, and embodying at once a half-serions palinode aldressed to the female sex, and a parody of regular Attic tragedy
（notably the Iphigenia in Tanrirt）；（3）\｛hat in the／Jormeles the hero is meat to be mad from his first entrance，that his supernatural birth and ablentures are delusions which he himself only believes when insane，and that the appearance of Iris and Madness is a dream－ visim which appears only to the sleeping leader of the Chorns；（ 4 ）that in the Orestox， Pylades is a wild fool，Orestes at maniac，and Vlectrat it fiend，and that the play orisinally ended in the conflagration of the palace and the death of all the primeipal characters，the limal scene of the dens er markinu heing just tacked on superficially to sitisly the conven－ tions of the Dionysiac drama．The Oiestes and Meden，like the Ifelen，1no．Veriall regards as having leen originally written for private perfomance，without chorn－．The volume comelules with a number of motes om single passages in the four plays．

Die griechische Literatur des Altertums．Vmi U．vox Wifamowit\％－Moedolin－ ponfr．Berlin and Leiprig：Teubner，1905．Plo．236．
Prof．Von Wilamowitz－Moellendorfl＇s sketch of Greek Literature forms a section of the combined work entitled Die K＇ultur der Gogemrart，and unfortunately camot be obtained apart from the volume to which it leloness．Its most striking characteristic at first sight is the relatively large sace devotel to the later literature．It is divided into five periods， thus apportioned in time and space：（1）Hellenic Periot，13．c． \(700-480\)（pp． \(4-35\) ）；（2） Attic l＇er：od，13．c．480－320（ 1 p ．35：－81）；（3）Hellenistic Periorl，1．．c． \(320-30\)（pp．81－144）；（ 4 ） Roman Periot，1．c．30－s．1． 300 （p1．J4－197）；（5）East－Roman Period，A．1．300－529，the date of the closing of the Platonic Aculdemy（pp．198－229）．In the last two periots Christian as well as pagim literature is inchuled．The history（which wonld well repay translation for the benefit of English stulents；is written from the independent standpoint characteristic of the author，and ahommes in surgestive and stimulating dicfu．Unfortin－ ately it has no index，a defect only partially made good by printing in the marsins the names anl dates of authors noticerl．

Les Phéniciens et lOdyssée．By Victor Béramp．Vol．II．P1．vii \(+6: 30\) Paris：Armand Colin， 1903.
We resret that we are so late in noticing M．Berard＇s final volume．It continues the amalysis of the different episodes of the Orlyssey with chapters on the Psendo－Cretan＇s tale； the Lotus－eaters and Cyclopes；the Isle of Aeolus，and the Laestrygonians；the Isle of Circe and the Nekuia；the Sirens，Charybelis，and Scylla；the Island of the Sun ；and finally ［thaca．Each of these scenes is placed in a definite locality，the natural features of which seem to the author to be conclusively and exclusively indicated by the poem．The hero＇s wanderings from Thrace to Jerha，Jerla to the Phlegraean Fields，the Phlesraean Fields to Stromboli，Stromboli to N．E．Surdinia，Sarlinia to Terracina，Terracina to Lake Avernus amd lack again，thence to the Straits of Messina，and lastly to the Isle of Peregil near Gibraltar and back by Corfi to Ithaca（the real one，not Prof．Dürpfeld＇s Lencalian Ithaca）， make a strange pattern on the map！＇There is no particular reason why all these identifica－ tions should not be correct，but there is also seldom any particular reason why they should be so．One cannot help feeling that with a little home colonté the whole Odyssey could be localised equally well almost anywhere－say，round the shores of the Black Sea．Finally M．Burard summarises his theory that（1）the Odyssey is based on a Phoenician periplus； （2）it is the work of one Homer；（3）it appeared in the ninth century and probably in Greek Asia Minor．The book，whatever credit he given to its confident topography，contains at vast amount of interesting comment on the Odyssey，and deals with a wide range of know－ ledge；but if the Semitic philology，on which it largely rests，were vouched for by other Semitic experts，and the Egyptolosy were hased on less popular authorities，we should find them more convincing．

Aegina-das Heiligtum der Aphaia. Unter Mitwikuny von Envst R. Fibchter
 pp. ix +504 ; 1 map, 6 full-page illustrations, and 413 figures in the text ; Tufoln, I! \(\mathrm{Px}+130\) plates. Munich: 1906. 120 m .

These onlumes contain in the first place a thorotgh and scientilie record of the Baram excavations of the well-known temple on Aegina in 1901; in the secont, the results of a aletailet study of all the products of the earlier excatations lyy ('oekerell and von Haller in 1811, as now preserved in Munich, in the light of now data and of motern methods. These results are starting and even revolutionary in character, but it is impossible to chout their correctness in the main; and they give the book a foremost place amons the archateological works of the present generation. The most general interest will be aroused be Prof. Furtwangler's treatment of the senlpute from the pediments. The aransement of these groups, as restored by Thorwaldsen, in Munich, hat lifeome limiliar from its reproduction in all histories of art, and has been regated as typical of early pedimental composition ; but it only represents one of Cockerells varions surgextions, and really rests on mu evidence at all. With the help, not only of the extant remains limm Aegina, but also of a stuiy of other early pediments and their principles of composition, and of the treatment uit similar -ubjects on contempotary vases, Prof. Futwingler has made a new reconstruction of the emi and west pediments which, if not certain in all its details, mest beaccepted in its sheneral datacter. Fom the rigidly conventional armagement of the ohter system we fimd substituted a division into lively groups, and a motion from as well as to the centre which ㅡㅠ. one a very different motion of pedimental composition. The existence of higurefrom a thin pectimental group of combatants seems well attested; and the suggestion that i: Wat the unsucresful one in a competition, set up in front of the temple, is interestine. The mimh disputed question of the dedication of the temple seems to be settled hy the discovery of inseriptions with the name of Aphaia; the site of the temple of Keus F'ahellenios has been fomme near the Oros. A to that of Athena, mentioned by Herodotus, F'urtuangler now doults its existonee, anl would accept limz' emendation of 'Apains for : 1 Aquacims.

The architectural stuly of the temple, and of other buiding earlier and later, is auried out very thoroughly by Dr. Fiechter. The chief prohlem is the curious arrangemont of the opisthodoms and the door, msymmetrially placed, leading into it from the back of the cella: this is explaned as due to a change of plan, mate during the buikding, in order to atcommodate some sulsidiary shrines. The minor antiquities are carefully trated by Prof. Thiersch. Perlaps the most interesting are some fragments of Natucratite vases with inscriptions painted upon then, and so apparently made to order. It is, howerer, incorrect to state that no other vases from Naucratis have leen found on Greek soil, except. in the Athenian Acropolis: there are some among the pottery from Rheneia, buried there when the Athenians purified Delos.

The illustrations are mostly excellent ; the only fault to be found is with the somewhat crude colouring of the phates with coloured sculpture; however satisfactory as diagrams, their artistic effect is not gool. The form is to he commended-two moderatesized and miform volumes, instead of an mwiehly folio atlas and at smaller text.

Architecture East and West: a collection of essats written at various times during the last sisteen years. l3y R. Phenf sphers, li.S.A., l.R.I.B.A. London : Batsforl, 1905. P1, xvii +269 . With a portrait and 116 illustrations, 33 full-page plates.
Strictly speaking, most of the essalys in this book have no direct relation to Hellenic studies, but some of them will interest all those who care t" frace the development and influence of Hellenic and Byzantine forms in cant and west. The essays are placed in
order of their publication ; and, as eath is independent and complete in itself, this course may be justified ; but it might have been more instrictive to begin with that on the influence of Greek art on the Persian order, which corrects many current errors and misapprehensions, to follow it with the essay on Sassamian arrhitecture, and so on. These two articles are both helpful to the understanding of the true relations between east and west; they are followed by most interestime studies of the relation and contrast of forms found in Syria, in Byzantium, in N. Italy, and in the S. of France. The essays were mostly written lir architectural students, and some of them require special knowledge to be appreciated in detail; but this does not prevent their heing also useful to the layman who wishes to, obtain a notion of some of the most interesting problems of architectural relations amb influences.

Primitive Athens, as described by Thucydides. By J. E. Harason. Pp. xii +168 , with a frontispiece and 49 illustrutions, including several plans. Cambrilge : University Press, 1905. 6s. net.
Miss Harrison, in her preface, expressly renounces the intention of issuing a second edition of her 'Mythology and Monmments of Ancient Athens,' on the ground that the needs it met are now supplied, in English at least, by other recent books. But these recent books do not, in her opinion, do justice to Prof. Dürpfeld's theories upon some crucial points of Athenian topography: she has therefore restated these theories with confident eloquence ; and incidentally has taken the opportunity of giving a popular and interesting account, not only of topographical questions, but also of such matters as the most recent reconstructions of the early perliments on the Acropolis, and the mythologieal investigations which she has made peculiarly her own. There has been a good deal of discovery and study within the last two or three years that is not controversial in character, and of this also Niss Harrison gives the most recent summary. Her book well fulfils its avowed intention of giving the scholar a vivid impression of primitive Athens. As to the controversy from which it starts, those who wish to form an unbiassed judgment would do well to supplement Miss Harrison's impassioned advocacy by a study of Mr. Frazer's judicial summary of the evidence.

A History of Architectural Development. By F. M. Simpox. Vol. I. Ancient, Early Cliristian, and Byzantine. Pp. xvi \(+272 ; 180\) illustrations, many fullpage. London: Longmans, (ireen, and Co.o, 1905. 12s. 6r\%, net. [The Architect's Library.]
This book is a brief summary, intended mainly for architects ; Greek architecture is dealt with in only about fifty pages: it does not therefore supply the long-felt need of it gool popular work on Greek architecture. Even within these limits there are some curions crrors. Thus the carly Ionic column from the temple of Apollo at Naucrati- is classel as Egypian, if not Ptolemaic. It is certainly neither, but archaic Greek. Again, even on this scale, the essential differences between the Attic Iomic of the Erechtheum and the more ordinary type might have been emplasised. The small size of the theatre of Dionysus at Athens is dwelt upon, and it is said to be only 16.7 feet across at the top: really it is more than twice this, ant the largest extant in Grecee. On the other hand, Prof. Simpson has an interesting theory as to the alteration of the original plan of the Erechtheum, which is more moderate than Dörpfeld's, and is made independently. In the chapters on Byzantine architecture there is much matter; but the students for whom the book is intended would probahly lave been grateful for some clearer gencral exposition of the various influences and the theories held alout them by modern crities.

Geschichte der griechischen Kunst. Ry Widhem kidm. Yol. i. Jie griechische Kunst bis Myron. 1 \({ }^{1}\), 473. Vol. ii. Die griechische Limst von Myrm his Lysipp. P'p. 407. Leipsic : Veit \& C \(1 ., 1904,1905.13 \mathrm{~m}\), and 11 m .
The atthor has undertaken the tialk of writing the general histnry of Greek art with it ruming pen, but yet on a considerable seale. In the first whome he touches lightly on the ethographic thestions which surround the begimings of 'ireek art, and views the -ubject in successive chapters as (ireck art 'hefore the reception of the Mythos,' 'hetween the reception of the Mythos and the begiming of marble sempture' 'and 'at the conrts ,f the Tyrants.' For the periods before the Persian wars considerable use is mate of the remains of the lesser arts, and especially of vase paintings. After the Persian wars attention is continel to the senlptors and oreater painters. A third volume is announced, which will deal with the Hellenistic period.

The work is a useful and exceedingly interesting survey of an enormonsly wide field. It is open to question, however, whether the lines of the book are wisely drawn. The treatment is too detailed for the purposes of a mannal, but omits the formal statement of facts demanded of a history. Illustrations are altogether wanting, and the book can only be used satisfactorily by a realer who hats eceess to ath archachonical lil)rary.

Catalogue of the Sparta Museum. liy M. N. Tod and A. J. l? Winf. Pp. viii +249 , with 8 ã figures. Oxforl : Clarendom Press, 1906. 10s. Gicl.
This Catalogue was a necessary preliminary to the survey of latomia which has heen undertaken by the British School at Athens. Though mot in form an ofticial pullication of the School, it is in fact a part of that enterprise. Mr. 'Tool is reaponsille for the inscriptions, and Mr. Wace for the sculptures. The work consists of (1) an introluction to the inscriptions; (2) the text of the inseriptions (in cursive type only for the most part) with such commentary as is required to justify the text, which is in all cases lased on a careful re-reading of the stones; (3) full indices; (4) in intoduction to the sculptures; (5) the eatalogne of the sculptures, which is accompanied by a considerable number of blocks in the text ; (6) a full index to the sculptures (it may be questioned whether any one will profit by such an entry as 'Imperial period' followell by some \(2(60\) ruferences) ; ( \()\) an ateount of the miscellancons antiquities in the Musemu, such as the votive lead figures from the Menelaeum and elsewhere. The book is indispensable for the study of Sparta and Laconia.

\section*{Musée National du Louvre. Catalogue des Vases Antiques de Terre} Cuite. Par E. Portrar. 3ue Partie : J'École Attique. 1'p. 534. Paris: Librairies-Imprimeries Réunies, 1906. 3 f. 50 c.
A catalogne, even a catalogue ruisomné, is not always to be regarded as a piece of litcrature, or as entertaining reading for leisure moments ; but M. Pottier's latest instalment of his description of the Louvre vases is a motahle exception, and the writer has with muth satisfaction as well as profit devoted some idle holiday hours to its perusal. Strictly speaking, it is not a catalogue but a treatise on Greek vases illustrated by, and serving as a guide to, the Louvre collection; but this detracts neither from its merits nor its usefulness.
M. Pottier has now reached the period which to many students is the most interesting in the history of Greek vases, that of the Attic Schools, or the hack-figure and red-figure periods. In his two previons volumes he discussed the primitive and earlier Greck fabrics, and the present one includes the Attic vases of the sixth and fith centuries foumd on Italian soil, and therefore imported from Athens during the period when these products found favour in Etruria. The volume opens with a sketch of the growth of the Athenian potteries under Peisistratos, followed by a discussion of painting in the latek-figure methon
and its plate in the history of art ; the anthor rightly emphasises the fact that this methorl must have continuel well into the fifth century, side by side with the red figures, by which it was ly no means entirely displacel. Next we have some illuminating remarks on technical processes, and on the conditions under which the Athenian potters worked. In the latter connexion the author has done grool service by the distinctions he draws between potters and painters, a distinction olten overlooked or confused hitherto. His
 Eypaqe we are left in no doubt as to the artist's share in the production of the vase; but the more frequent is \(\delta\) eiva émoínge is not so casy to interpret. Usually it may he assumed to refer to the master amd director of the poitery who himself designel the vase and overlowed the work of his subordinates (see ply. 697 ff ).

Then follows a hescription of the black-figured vases (Salle F), carefully classified and grouperl, in at roughly chronological order. The red-fighred vases' (Salle (i) are similarly dealt with, the introduction to this part (pI). 817-879) leing mainly concerned with the style and products of the known artists, Euphronios, Duris, etc., as well as with such matters as chronolory, drawing, and suljects. Throughout, the theme is treated with the lirealth of knowlelge, sanity of julgnent, aml charm of style which characterise all II. Pottier's work. Our only regret is that space forbits to enlarge further on the merits of this really delightful wolnme.

\section*{A Catalogue of the Greek Coins in the British Museum: Catalogue of the Greek Coins of Phrygia. By Barclay V. Head. Map and 53 Plates. London: Printed ly Order of the Trustees, 1906. Pp. cvi +492 . 40 s.}

This volume is the twenty-fifth Greek Coin C'atalogne issued liy the British Museum. It is also the last of the great series for which Mr. Head will he officially responsible. As such it is a fitting crown to a long career of distinguished public service. The coinage of Phrygia has little attraction for the ordinary collector. The district was not opened up tu civilization until the days of Alexamder. Consequently no cuins were struck till the art of die-cutting had long passel its renith. The mints were not numerous at first, and with two or three conspichous exceptions they were comparatively inactive until Roman times. Under Imperial rule Phrygia awoke to an era of extraordinary prosperity. Mints multiplied and coins were issued abumdantly. Many of the issues were obviously made in connexion with recurrent religions festivals,-- a circumstance that has led to the use of not a few interesting mythological types. The inscriptions, too, for a similar reason are often important. A careful study of them is calculated to throw a flood of light upon municipal organization in the Eastern provinces. In his thorough and comprehensive Introduction Mr. Head is able to give us astonishingly long lists of names of individual magistrates, while his Index of Remarkable Inseriptions contains material for investigation on several distinct lines. In little more than thirty years the total number of Phrygian coins in the trays of the Museum has more than trebled itself. Mr. Head's volume gives a detailed description of 2148 specimens. When it is mentioned that Mionnet was only able to record 1636 varieties in all, it will be seen how rich our mational collection has become,-largely (be it addell) through Mr. Head's own fostering care. So far as the compiler's share is concerned, the workmanship of the book touches the highest level of excellence. The plates are good, but not so good that one does not wish them leeter. The map is capital.

Historical Greek Coins. Described ly G. F. Hill. 13 Plates. London: Constable, 1906. Pp. \(x x+182\). 10s. 6d, net.

This book is primarily intended for the general student of Greek history, who cannot reasonably be expected to be also a specialist in ancient numismatics. Its purpose is
(1) show ly actual illustrations the kind of evidence that is to lue looked for from coins, and to bring home to its readersthe importance of asking, in any serious discussion of a historical problem, 'Can we get help from the coins?' One hundred specimens in all are discussed. Their selection has been determinel by a desire to choose 'pieces which, either by the mere fact that they were issued, or else by information conveyed throush their fabric, types, inscriptions, or standard, actually add their quantum to our knowledge of the period to which they belong." Mr. Hill writes elearly and with fullness of knowledge. In each discussion he brings us abreast of the most recent researches, and at the same time exercises an independent judgment. The result is a stimulating and useful volume. How wide is the range of interest can best be indicated by mentioning that such varions personalities as Croesus, Themistocles, Pharnabazus, Epaminonlas, Timoleon, Flamininus, and Pompey figure in the pages, while the historical events touched upon include the 'crowning merey' of Himera, the Athenian disaster in Sicily, and the formation of an Anti-Spartan leayne after the battle of Cnidus. The book is admirably printed. The half-tone plates, thongh naturally less effective than collotype, are remarkably good of their kimi. A glossary and in index are provided.
 Richard Wagner. Ppos +489 . With 7 coloured plates, 2 maps, and about 400 illustrations. Leipzis and Berlin: \(1900^{5} .12 \mathrm{~m}\).
This is an attempt to give in a single volume a comprehensive survey of Greek history, art, and literature from the earliest times to the loss of Cireek independence. The work is divided into three great periods, viz. (1) The Early Age of Grecee, comprising the remains of Pre-Mycenaean and Mycenaean civilization ; (2) The Greek Middle Age-roughly from 1000-500 1з.C. ; (3) The Culminating Period ( \(500-338\) IB.c). Each of the three authors has taken charge of one of the three special sections into which the two last-named periods have been divided. One deals with the development of the state and of religion, the second with Art and Architecture, the third with Literature. Such an arragement has the adrantage of giving unity to the work. No pains lave been spared in incorporating the results of recent researches, and an excellent collection of illustrations has been got together. The weak point is to be found in the arrangement of the latter. It is certainly discomposing to find late rod-figured vases, fouth-century coins, and Graeco-Roman jewellery joined with a store-chamber of the Palace at knossos to illustrate the Period 750-500 b,c. The book is intended for use in the school and the home, and as at whole fulfils its aim with success. The addition of hibliographies might have made it useful to the student and the scholar also.

Melandra Castle. Report of the Manchester and District Branch of the Classical Association for 1905. Editel ly R. S. Cowwas. With in Introduction hy the Rev. E. L. Hrces. Manchester: University Press, 1900. Pp. xvi+167. With Map, Frontispiece, and numerous Illustrations. 5s.
'I'lis little book deserves a warm welcome. It is pleasant to find the younger miversities taking a seriuns interest in archacology, and pleasant to acknowledge the first real fruit that the Classical Association has hrought forth. The site of Melandra-a Roman castellum in the uplands of Derlyshire-Was partially explored hy Mr. John Garstang in 1899. The present lieport gives an accomt of further excavations carried out by a Committee of the Classical Association in 1905. One conld have wished that the harvest had been richer. The artual results were not very important. Such as they were, however, they are here set forth with a fullness and an enthusiasm that merit high commendation. Apart from Canon Hicks and the compiler of the excellent index, there are no fewer than seven contributors, each of whom deals with one or more special aspects of the subject. These include such
well-known experts as Iruf. Boyd Dawkins and Dr. Haverfield. An incidental drawback to the system alopted is that it entails a certain amount of repetition. The same fact is frequently mentioned indepentently in two or three different articles. Mr. F. A. Braton sives a clear and careful aceount of the digreing. The rampart is the structural feature to which most interest attaches, and in regarl to that the last word is still to say. The pottery is almirahly described by Mr. Hopkiuson. This is one of the best portions of the book. Its chief weakness is the writer's too great realiness to regrard the latest theories as final. Excellent as is the work done recently by bragendorfl and Dichelette, their inductions have still to be tested by observation over a wide area. We are told, for instance, by Mr. Hopkinson that "Bowls [of "towa sigjllute"] of shape 29 are found in Britain as far north at York, but beyond York (i.e. in the parts of Britain occupied later than 80 A.1. ) muly howls of shape \(37^{\circ}\) (1p, 81 f .). Fracements of shape 29 occur it more than me site on Hadrim's Wall: if we mistake not, there are several in the Blackgate Museum at Neweastle. Others have heen found recently at Newstead near Melrose. Seven or eight yens ago quite a mumber were discovered at Camelon beyom the Seottish 'Vallum.' These facts maly not weaken the foree of Drasendurff: inference. Possibly they may strengthen it. But they are fitets, and they should not be ignored. The very interesting series of weights provides Prof. Conway (who is a singulaty rompetent editor) with material for imgenions speculation, and he also discusses the coins. We confess to grave douhts about the 'Jewish' roin. If it were really Jewish, the falnic should be unmistakable. Nor are we inclined to bow the knee to the British Musemm in regard to the Roman origin of the chrions bronze plate from 'Pym's l'arlous.' But thess are small points. The look is an most ereditable piece of wotk. And the printins and the general 'get-up" are all that could be flevired.

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[^0]:    Expenses (less sales)

[^1]:    To Deficit Balance brought forward (excluding

    $$
    \begin{aligned}
    & \text { Value of Stock) .................................. } \\
    & \text { Insurance of Stock } \\
    & \text {,, Half Share of Amount, less Expenses, for } \\
    & \begin{array}{l}
    \text { merican Archoological Institute ......... } \\
    \text { Balance on current year to Income and } \\
    \text { Expenditure Account ................ }
    \end{array} \\
    & \text { Expenditure }
    \end{aligned}
    $$

[^2]:    ${ }^{1}$ The attention of contrilhutors is called to the fact that the titles of the volumes of the second issue of the Corpus of Greek Inscriptions, published by the Prussian Acadeny, have now been changed, as follows :-

    | I.G. | I. = Inser. | tticae anno Euclidis vetustiores. |
    | :---: | :---: | :---: |
    | , | II. $=$, | , aetatis quae est inter Lucl. ann, et Augusti tempor. |
    | , | III. $=$, | ,, aetatis Romanae. |
    | ,, | IV. $=$ | Argolidis. |
    | ," | VII. $=$ | Megaridis et Bocotiae. |
    | " | $1 \mathrm{X} .=$, | Graeciae Septentrionalis. |
    | ,, | XII. = | insul. Maris Aegaei prater Delum. |
    | " | XIV. = , | Italiac et Siciliae. |

    Niese $=$ Niese, Geschichte der griechischen n. makedonischen Naten.
    Num. Cher: = Numismatic Chronicle.
    Num. Zeit. = Numismatische Zeitschrift.
    Pauly-Wissowa $=$ Patuly-Wissowa, Real-Encyclopitide der classischen Altertumswissenschaft.
    Philol. $=$ Philologns.
    Ramsay, C. $B=$ = Ramsaty, Cibies and bishoprics of Phrygia.
    Rev. Arch. = Revue Archéologique.
    Rer. Et. (ir: = Revue des Ethides Cirecques.
    Rev. Num. = Revue Numismatique.
    Rer. Philol. = Revue de Philolosie.
    $\mathrm{R} \%$ 。 J/us. $=$ Rheiniselies M tusemu.
    Röm. Mith $=$ Mittheihusen des Dentschen Archäblogischen Instituts, Romische Ahtheil uns.
    Ruscher = Roscher, Lexicon der Mythologic.
    T.A. II. = 'Tituli Asiae Minoris.
    Z. $f . V_{0}=$ Zeitschrift für Numismatik.

    ## Pranstiteration of Inseriphtions.

    [ ] Square brackets to indicate additions, i.c. a lacma filled by conjecture.
    ( ) Curved backets to indicate alterations, ie. (1) the resolation of an abbreviation or symbol ; (2) letters misepresented by the engraver: (3) letters wrongly omitted by the engraver; (4) mistakes of the copyist.
    $<>$ Angular bratekets to indicate omissions, i.e to encluse superfluons letters appearing on the original.
    . Dots to represent an mfillal lacuma when the exate number of missing letters is known.
    -. Dashes for the same purpose, when the number of missing letters is not known.
    Uneertain letters should have dots under them.
    Where the origimal has iota adseript, it should be reproluced in that form; otherwise it should be supplied as subseript.
    The aspirate, if it appears in the original, shoukd be represented by a special sign, ${ }^{+}$.

    Quntetions from MSSS. and Literery I'cats.
    The same conventions should be employed for this purpose as for inseriptions, with the following important exceptions:-
    ( ) Curved brackets to indicate only the resolution of an abbreviation or symbol.
    [ [ ] ] Double square brackets to enclose superfluous letters appearing on the original.
    $<>$ Angular brackets to encluse letters supplying an omission in the original.

    The Editors desire to impress upon contributors the necessity of clearly and accurately iudicating accents and breathings, as the neglect of this precaution adds very considerably to the cost of production of the eowrual
    
    
    

    STATUE OF A BOY LEANING ON A PILLAR.

    [Plates I., II.]

    This statue, which was in the possession of Dr. Philip Nelson of Liverpool, has recently become the property of the Bavarian 'Verein der Kunstfreunde' who allow the charming work to be exhibited on loan in the Munich Glyptothek. ${ }^{1}$

    That the original, of which this statue is a copy, was famous and popular in antiquity is amply proved by the large number of extant replicas. The present example brings up to twenty the number of authenticated replicas given in the English edition of Furtwängler's 'Masterpieces' (p. 272, note 4) and the list could doubtless easily be increased if the eleven replicas in Rome (Matz-Duhn, Antike Bildwerke in Rom, vol. i. pp. 275-278) and the thirtyseven replicas enumerated by M. Salomon. Reinach in his Répertoive de la Statuaire (Index, s.v. 'Narcissus') could be thoroughly examined and sifted. This is a task which I had proposed to myself in view of this paper, but which I have as yet been unable to carry out.

    It is strange that no other instance of the type appears to exist in the rich English private collections, if we except the entirely restored torso, with the movements reversed, at Rossie Priory (Michaelis, Ancient Marbles in Great Britain, Rossie, No. 1) and the more than doubtful example at Holkham (Michaelis, Holkham 20, Reinach, Répertvive i. p. 180, 1) which has been turned into a ' Meleager.'

    The publication of this statue was courteously offered to me by the English owner in May of last year, before it passed to Munich. The editors, however, having prepared and lettered the plates for this number of their Journal, cannot well withdraw or postpone them. At present, therefore, I must be content to contribute a few words of description based upon the photographs, and upon observations kindly sent to me by the former owner, though I shall probably seek to resume the subject when I have examined the replicas outside the list in the 'Masterpieces.' I may add that this ' Boy' is only one item among a number of notes upon 'inedited works of


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    antique art in English private collections,' the publication of which, however, other more urgent work has obliged me to postpone.

    The restorations in our statue are very numerous and apparently not altogether happy. The nose, the left arm from the elbow, the legs from the knees, the tree trunk and the plinth are all modern. Moreover, the left arm is wrongly restored with the hand turned outward, towards the spectator, instead of backward with the palm resting on the supporting pillar. The correct movement and pose of this arm are well known from the beautiful replica found in the Nile Delta and purchased by the Louvre in 1894 (published by E. Michon in Monuments Piot, i. Pl. xvii.; text pp. 115-128). The head of our Nelson-Munich replica has been badly replaced, owing to the markedly clumsy restoration of the neck: the pose should be corrected, again by comparison with the Louvre example. But in itself the head, save for the restored nose, seems to reproduce with simplicity and sincerity the lines of a distinguished original of the latter half of the fifth century b.c. Furtwängler, who first brought the type into prominence in his 'Masterpieces' (pp. 272-275 ; cf. also his article in Bull. d. I. 1877, p. 158), places the lost original within a cycle of Argive creations, immediately influenced by Polykleitos. In fact from the pose of the feet he links the statue to a group of works more or less closely connected with the 'Pythokles,' the basis of which is extant at Olympia. Furtwingler shews, however, that the type, though Polykleitan in its essence, is not uninfluenced by Attic models (ib. p. 274). On the other hand, M. Michon, to whom we owe an excellent critical notice of the Louvre statue, inclines rather to the theory of an Attic origin. The view taken by Dr. Amelung in his descriptions of the replicas in the Colonna Gallery (Arndt-Amelung-Bruckmann, Einzelaufnahmen, No. 1139) and in the Museo Chiaramonti (Amelung, Skulpturen des Vaticanischen Museums, vol. i. No. 536, Plate 70) is that the type is the direct product of combined Attic and Argive influence with preponderance of the Attic. ${ }^{2}$

    In the Louvre, and apparently also in the Munich figures, the broad frontal construction is especially interesting, and proves at once the comparatively early period of the original. The forms are soft, yet the absence of any roundness of modelling is conspicuous. This flatness of the planes-always a concomitant of frontal construction-gives effect to the beautiful, curving silhouette. The design is severely self-contained, the silhouette finding its starting and meeting points at what affords the key, so to speak, to the whole composition, the supporting palm of the left hand. The chiastic construction is peculiarly emphasized, the weight on the left hand being balanced by the weight on the right leg, and the bend of the right elbow by the bend of the left knee.

    The marked inclination of the head, the melancholy satiety of the expression, the weariness of body suggested by the pose of the left hand, all seem carefully thought out in order to express some psychological state


    two versions of the 'Narcissus,' the one more Polykleitan, the other more Attic in character.
    peculiar to the subject represented. As M. Michon subtly remarks (Mon. Piot, i. p. 125) 'son laisser aller va au delà du simple repos physique et s'étend du corps à l'esprit.' In spite too of the sweetness of the forms of the face, there is yet a sombreness of expression to which we are unaccustomed before the Roman period and the portraits of Antinous. ${ }^{3}$ This attempt to attain to spiritual individuality gives the statue an almost unique place among the more generalized creations of the period to which it belongs technically as well as structurally, and efforts to discover the name of the being represented have been plentiful, although, owing to lack of corroborative evidence, none brings definite conviction. Furtwängler disposes of the name of Narcissus by which the type has long been known, and of his own earlier interpretation of Hyacinthus, and at the same time he wishes to substitute that of Adonis. The present writer inclines to the theory, already many times put forward and rejected, that the figure has a sepulchral intention, that it commemorates some young athlete snatched away perhaps in the moment of success and victory. The so-called 'Adonis' has been brought by Furtwingler into relation with the earlier versions of the 'wearied Herakles' leaning forward on his club; nor must it be forgotten that this type of Herakles was shewn by Mr. A. S. Murray to have been transformed into a sepulchral figure in the beautiful' Athenian' stele acquired a few years ago for the British Museum (J.H.S. xxii. 1902, Plate I.).

    The dimensions of the statue, which is about two-thirds life size, are, I am informed, identical with those of the Louvre replica (Michon, p. 116), the total height being 1.125 metre.

    Eugénie Strong.


    the two works are consitered side by side, a deeper and more individual emotion will be felt to pervade the 'Narcissus' than the 'Amazon.'

    # THE PANKRATION AND WRESTLING. 

    ## III.

    ## [Plates III.-V.]

    ## A.-The Nature of the Panleration.

    The combination of boxing and wrestling known as the pankration was a development of the primitive rough and tumble. To get his opponent down and by throttling, pummelling, biting, kicking, to reduce him to submission is the natural instinct of the savage or the child. But this rough and tumble is not suitable for an athletic competition: it is too dangerous and too undisciplined. To the early Greeks, athletics were the recreation of a warrior class, they were not the serious business of life or even a profession, and in an age of real warfare the warrior's life was too valuable to be endangered for sport. Moreover, without some form of law athletic competitions are impossible, and in the growth of law the simpler precedes the more complex Hence it was only natural that particular forms of fighting, such as boxing and wrestling, should be systematized first, and so made suitable for competitions before any attempt was made to reduce to law the more complicated rough and tumble of which they both formed parts. Wrestling and boxing were known to Homer, but not the pankration, and Greek tradition was following the natural order of evolution in assigning the introduction at Olympia of wrestling to the 18th, of boxing to the 23rd, and of the pankration to the 33rd Olympiad.

    We have already seen that the essential difference between wrestling and the pankration is that in the former the object is to throw an opponent, in the latter the struggle goes on until one of the two pankratiasts acknowledges his defeat (ámayopєv́є८). ${ }^{1} \quad$ The Spartans, we are told, were therefore forbidden to compete either in the pankration or in boxing, because it was considered disgraceful for a Spartan to acknowledge defeat. Another reason perhaps for the prohibition was that at Sparta the primitive rough and tumble unrestricted by any laws, and unrefined by science ${ }^{2}$ was practised as a mere test of


    endurance and as a training for warfare, and it was felt instinctively that such an exhibition of brute force was not fit for an athletic competition. But at Olympia and all the great games, the pankration was subject to the $\nu$ ó $\mu$ os є̇váóvios, and was, at all events in its best period, a contest no less of skill than of strength.

    > B.-Laws of the Pankiation.

    The fullest account which we possess of the pankration is in Philostratus' picture of the death of Arrhichion. ${ }^{3}$ After vividly describing the scene and the enthusiasm and excitement of the spectators he continues : oi таүкрат-
    
    
    
    
    
    
     тò $\delta \grave{\epsilon}$ ä $\gamma \chi \epsilon \iota \nu$ ध̇ $\pi a \iota \nu 0 \hat{\sigma} \sigma \iota \nu$.

    It would be difficult to give a more concise description of the pankration. Wrestling, hitting, and kicking are employed : the wrestling is кєкєvסvעєv $\mu \in \dot{\nu}$;
     prohibited. The details of the description will be considered later : for the present we must confine our attention to the two things prohibited. Díкขєıv explains itself, and has been illustrated in my last article. ${ }^{4}$ 'Opútтєıv is more difficult. Liddell and Scott translate it 'to dig or give a heavy blow.' The translation is pointless; we cannot suppose that in such a contest only light blows were allowed: ${ }^{5}$ nor can we distinguish maícu and ó $\rho u ́ \tau \tau \epsilon \iota \nu$ as striking with an open hand and with the fist respectively; for the Panathenaic vases prove conclusively that striking with the fist was allowed. The clue to the meaning of ópútтєıy will be found in a closer examination of two other passages in which it occurs, Aristophanes, Aves 442 and Pax 899. In both passages there is an obvious reference to the rules and methods of the pankration; in the Aves indeed the reference is to the very prohibition quoted by Philostratus. In both passages ópútтєє is used in sensu obscoeno, ${ }^{6}$ and the adjoining words give us the true meaning. It means to injure an opponent by digging the hand or fingers into certain tender parts of an opponent's body. I should be inclined to give it a general meaning so as to include forcing the fingers into an opponent's eye.


    $\delta \epsilon ́ \omega \nu \quad \pi \lambda a \gamma \hat{\alpha} \nu$ of the pankration (Nem. iii. 29) ; cp. Isthm. v. 60.
    ${ }^{6}$ Cf. vol. $\mathrm{xxp} . \mathrm{p} .15, \mathrm{n} .3$. The word $\dot{a} v a$ $\kappa \lambda เ v o \pi a ́ \lambda \eta$ is used exclusively in an erotic sense, and there is no evidence for its use as a wrestling term.

    A kylix in the B.M. E 78 (Fig. 1) gives us a vivid picture of such a scene. One of the pankratiasts has inserted his thumb into his opponent's eye as if to gouge it out, and the official is hastening up with his rod uplifted to interfere and punish such an act of foul play. Since I wrote the above, The Rev. C. W. Townsend has pointed out to me that this extension of the meaning of obvút $\epsilon \iota \nu$ is confirmed by the next remark of Peisthetairus in the Aves, $\tau \dot{\omega} \phi \theta a \lambda \mu \grave{\omega} \lambda \epsilon ́ \gamma \omega$, and he makes the interesting suggestion that ópúт $\tau \epsilon \iota \nu$, besides its obvious meaning in the passage, means 'to scratch.' In view of
    

    Fig. 1.-R.-F. Kylix. B.M. E 78. (After Hartwig, Meisterschal. Fig. 53.)
    this I should be inclined to see another example of ópúv $\tau \epsilon \iota \nu$ in Fig. 3 where one pankratiast digs his fingers into the other's mouth, and the official again is interfering.

    > C.-The Standing Pankration.

    The pankration may be divided into two parts тò äy $\omega \pi a \gamma \kappa \rho a ́ \tau \iota o \nu$ and $\tau \grave{o}$ ки́ть таүкра́тьov. In the former the opponents endeavour to throw each other to the ground employing not only all the tricks of ópÒ $\pi a \dot{\lambda} \eta$ but also hitting and kicking.

    The wrestling is described as $\kappa \epsilon \kappa \iota \nu \delta \nu \nu \epsilon \nu \mu \epsilon ́ \nu \eta$, an epithet appropriate to such throws as the flying mare, ${ }^{7}$ and also to the various legholds which though too dangerous for ó $\rho \theta \dot{\eta} \pi a ́ \lambda \eta$ were freely used in the pankration. ${ }^{8}$ Thus
    


     may perhaps be seen in a much mutilated group on a kylix from the Bibliothèque Nationale published by Hartwig. ${ }^{9}$ One wrestler is kneeling on his left knee and having seized his opponent between the legs lifts him up and bends forward as if to throw him to the ground. All that we can see of his opponent is his right foot hanging over the other's back. Another good illustration of a leghold is afforded by a gem in the British Museum (Fig. 4), representing a wrestler with his head 'in chancery' seizing his opponent by the thigh. In this case we cannot say which of the two is the attacker, and whether the leghold is employed in attack or defence; and the same is true of the type represented on the coins of Aspendus, ${ }^{10}$ where one wrestler has caught his opponent's leg and appears to be tilting him backwards. A further variety described by Philostratus perhaps belongs rather to ground wrestling, but may be mentioned here for convenience. Speaking of the short, thickset type of pankratiast, oi єं $\mu \iota \kappa \rho \hat{\omega} \mu \epsilon \gamma \bar{d} \lambda o \iota$, he ascribes their success to their skill in wrestling. 'They are, he says, quick and active and able to extricate themselves from the most hopeless grips, єं $\pi \iota \sigma \tau \eta \rho \iota \zeta \dot{\zeta} \dot{\mu} \epsilon \nu о \iota \tau \hat{\eta} \kappa \epsilon \phi а \lambda \hat{\eta} \kappa a \theta \dot{a} \pi \epsilon \rho$ Bá $\sigma \epsilon \iota_{\text {. }}{ }^{11}$ I know of no representation of this scheme in Greek art, but it is depicted clearly on the tombs of Beni-Hassan and in the present day it is no uncommon sight to see a wrestler picked up by his legs supporting himself on his hands and head.

    Again the wrestling of the pankration is кєкєข $\delta \nu \nu \epsilon \nu \mu \epsilon ́ \nu \eta$ because the pankratiast employs such means as $\sigma \tau \rho \epsilon \beta \lambda o \hat{\nu} \nu$ and $a^{\prime \prime} \gamma \chi \epsilon \iota \nu$. These tricks belong principally to the later ground wrestling, but they are also possible in the standing pankration. As an example of $\sigma \tau \rho \epsilon \beta \lambda o \hat{\nu} \nu$ we have the Sicyonian pankratiast Sostratus, who won his victories by breaking his opponent's fingers, or Arrhichion, who even at the moment when he was being strangled to death forced his adversary to succumb by twisting his ankle out of its socket. Again in Philostratus' description of the wrestling Erotes, one of them tries to break the other's hold $\sigma \tau \rho \epsilon \beta \lambda \omega \dot{\sigma} a \varsigma \tilde{c}_{\nu} \nu \tau \hat{\omega} \nu \delta a \kappa \tau u ́ \lambda \omega \nu{ }^{12}$ In the Uffizi wrestling group the upper wrestler is twisting and forcing his opponent's arm across his back, and the same motive is represented on one of the groups of the frieze of Lysicrates' monument. At first sight we are apt to condemn such practices as barbarous and unsportsmanlike, but the principle of $\sigma \tau \rho \epsilon \beta \lambda$ ô̂ $\nu$ or incapacitating an opponent by twisting any limb has been reduced to a science in Japanese wrestling. The same may be said of aैy $\chi \epsilon \iota \nu$ or strangling, a method of finishing the contest much approved by the Eleans. The Tusculan Mosaic, ${ }^{13}$ to which I have already referred, shows us a wrestler who has leapt on to his opponent's back while the latter is still standing, and with his arms and legs twined round him tries to strangle him, a manœuvre also described by Philostratus in his account of the wrestling

    Erotes. But though strangling played its part in the standing pankration or even in pure wrestling, the struggle on the ground offered far more facilities for it, and so the pankratiast required $\tau \epsilon \in \chi \nu \eta \epsilon i s \tau o ̀ ~ a ̈ \lambda \lambda o \tau \epsilon a ̈ \lambda \lambda \omega \varsigma$ ä $\gamma \chi \in \iota \nu$.

    The use of hitting and kicking in the pankration can be best illustrated from the Panathenaic vases. Two of the latter figured in the Monumenti ${ }^{14}$ represent a wrestler who has seized his opponent's leg and is in the act of tilting him backwards. The vases have disappeared but their evidence is confirmed by the similar type on the Aspendus coins, while a curious parallel is again afforded by one of the Beni-Hassan groups. ${ }^{15}$ In the latter, however, and on the coins the wrestler stauding on one leg tries to save himself by seizing his opponent's shoulders, on the vases he draws back his hand as though to strike him. I have before suggested that we have here a combination of kicking and hitting, ${ }^{16}$ and this suggestion is supported by two later representations in which the motive is unmistakeable, another group from the Tusculan Mosaic and a relief in the Louvre represent-
    

    Fig. 2.-R.-F. Kylix. Berlin. (After Hartwig, Fig. 12.)
    ing the Genii of Sport. ${ }^{17}$ To these I should add the Lamberg amphora published in Vol. I. of this Journal, Pl. VI. which seems to represent the same combination of hitting and kicking. Somewhat later moments than that on the Lamberg amphora are represented by a Panathenaic amphora in the Louvre ( F 278) where the right hand pankratiast is in the act of being knocked down by a blow on the face, and by the fragment of a Berlin kylix (Fig. 2) where he has actually fallen. This method of attack might be fitly described as є̇ $\downarrow a ́ \lambda \lambda \epsilon \sigma \theta a u$.

    In all the cases mentioned above we may notice that the fist is clenched, a fact which conclusively disproves the assumption that hitting with the fist was not allowed in the pankration. The only authority for such a statement is to be found in a single passage of Galen, ${ }^{18}$ which at the most


    proves that the pankratiast did sometimes use his open hand, and certainly does not exclude the fist.

    A second Panathenaic type is represented by two vases in the British Museum B 604, 610 (Pls. III., IV.). Here we have a conventional representation of boxing and wrestling. It is conventional because such attitudes can surely never have occurred in actual contest except with the most clumsy of performers, and can only be explained as an attempt on the part of the artist to combine in a single scene boxing and wrestling. The right hand pankratiast rushes in with his head down and allows his opponent to catch his throat in the bend of his left arm and pummel him with his right hand. In B 610 the latter lifts his fist to strike, in 604 the intention is not so clear ; but in both the noticeable feature is the way in which his opponent has put himself into and remains in so hopeless a position.

    > D.-The Pankration on the Ground.

    The struggle on the ground described variously as тò ки́тш таукри́тьо⿱, кú $\lambda \iota \sigma \iota \varsigma, \dot{a} \lambda i \nu \delta \eta \sigma \iota \varsigma$ must have been the really decisive part of the pankration. It was probably as long and as complicated as it is in the present day,
    

    Fig. 3.-R.-F. Kylix. Balitimone. (After Hartwig, Pl. LXIV.)
    the combatants sometimes sprawling at full length, sometimes on their knees, sometimes one on the top of the other as in the Uffizi group. It is this part of the pankration to which Plato objects and which leads him to exclude it from his ideal state as useless for military training because it did not teach men to keep on their feet. ${ }^{19}$ We may conjecture from this objection that in

    Plato's time the pankratiast like the modern so-called Graeco-Roman wrestler was apt to neglect the preliminary contest and to go down on the ground at once. This grovelling would appear to have been a sign of the decay of these antagonistic sports which we know had set in before Plato's time ; it must have been unknown to Pindar, who emphasizes the importance of boxing in the pankration.

    It is generally stated that hitting was not allowed when the opponents were on the ground. That it was not of general use is true because it was less effective than other means of ending the contest; but the gratuitous statement that it was not allowed is based solely on our modern idea of not hitting a man when he is down, and it is disproved by the evidence of the vases. In the Baltimore kylix (Fig. 3) a pankratiast having thrown his opponent over his head kneels over him holding him down with his left hand and lifting his right to strike. The official interferes apparently
    

    Fig. 4.-Wresthixg Groups on Graeco-Roman Gems in B.M.
    to stop the contest, but if any breach of the rules is intended, it consists probably not in hitting an opponent who is down, but in forcing the hand into his mouth, which may well come under the head of ópúrtєıl. The same type occurs, however, on other vases where the one opponent is either fallen or falling (Fig. 2), and especially on some of the Antaeus vases, the motives of which are all taken from the palaestra. ${ }^{20}$ We may notice particularly that the moment illustrated is precisely that when hitting would be most effective, when Antaeus has just fallen or is in the act of falling (Pl. V). The Uffizi group is useless as evidence owing to the uncertainty as to the restoration of the right arm of the upper figure.

    Ground wrestling is seldom represented in art except in certain


    mythological types : it did not lend itself readily to palaestra scenes in which most of the figures are upright. We learn from Lucian's Asinus, that its various movements were tanght systematically in the same way as those of ó $\rho \grave{\eta} \pi a ́ a ̀ \eta$. He mentions particularly $\tau \grave{a}$ ámò бovár $\omega \nu .{ }^{21}$ Groups of this kneeling type though not occurring on the vases are frequent on Jater gems, being particularly suitable for oblong and oval spaces, but from this class of monument we can derive little detailed information. The examples represented from gems in the British Museum explain themselves (Fig. 4).

    The sprawling type is associated chiefly with the struggles of Heracles with the lion and with Antaeus. In the case of the lion Heracles forces its head down and tries to strangle it. ${ }^{22}$ Antaeus has usually been thrown by a neckhold, and is trying to support himself with his right hand while Heracles with both arms fastened round his neck strives to force him to the ground ${ }^{23}$
    

    Fig. 5.-R.-F. Kylix. (From J.H.S. x. Pl. I.)
    (Fig. 5), a curious rendering of the scene, had the story that Antaeus derived fresh strength from earth existed in the sixth and fifth centuries. The kylix published in the Avch. Zeit. actually represents Heracles throttling his opponent. Antaeus has been forced on to his back in the manner described above or possibly thrown by the flying mare, and Heracles leaning over him with his right hand pins his right arm to the ground, and with his left hand grips him by the throat.

    Another interesting type afforded by Heracles' contests with the Triton and Achelous will be discussed in connexion with $\kappa \lambda \iota \mu а \kappa \iota \sigma \mu$ ós.


    ## E.-I'he alleged Brutality of the Pankration.

    It has been the fashion to treat the pankration as a contest of brute force and to contrast the ideal pankratiast Heracles and the ideal wrestler Theseus as the representatives of force and skill respectively. The comparison is unfair to the pankration and to Heracles. ${ }^{24}$ The pankration is essentially a contest of skill, and there is no ground for so contrasting Heracles and Theseus. The invention of the pankration is ascribed to both heroes alike. According to Bacchylides, Heracles employed this method of fighting against the Nemean lion, ${ }^{25}$ and vanquished the latter, not by brute force but by all manner of skill. Another tradition tells us that Theseus was the inventor of the pankration, employing it against the Minotaur. ${ }^{26}$ Both Heracles and Theseus were represented as the types of science as opposed to force in their contests with Antacus and Cercyon. ${ }^{27}$ A comparison of two passages written at very different periods will make both points plain. To Pindar the pankration was a contest of skill and Heracles was its noblest representative. But what is his idea of Heracles? Not the cumbrous giant of later art, but a man ' of short stature, and of unbending soul?' And of Melissus whom Pindar compares to Heracles we are told ' not of the stature of Orion was this man, but his presence is contemptible, yet terrible is he to grapple with in his strength,' and he owes his victory ' not only to the spirit of a lion, but to the sleight of the fox.' ${ }^{28}$

    Philostratus writing seven centuries later has the same ideal. To him too Heracles is not the overdeveloped monstrosity of later times, but iozvoos
     stature beyond that of mortal man: but such stature is not regarded by Philostratus as essential to the pankratiast. I have already alluded to Philostratus' account of those pankratiasts whom he calls oi є̇v $\mu \iota \kappa \rho \hat{\omega} \mu \epsilon \gamma$ áлot. He gives us an excellent illustration of such a pankratiast in his story of the Cilician who on account of his smallness of stature was nicknamed 'Halter,' or the 'Dumb-bell.' ${ }^{30}$ Whether the ideas of Philostratus corresponded to the practice of his own day may be doubted: the object of his treatise on gymnastics is to revive the purer and more skilful athletics of the past. At all events his evidence is a valuable confirmation of what Pindar tells us both of the pankration and of Heracles.

    The injuries inflicted in the pankration have been much exaggerated. Fatal accidents did occur as in the case of Arrhichion, but they were very rare, rarer apparently than in Greek or in modern boxing. The Anthology presents


    us with a gruesome array of the injuries inflicted by the hard and heavy boxing thongs, ${ }^{31}$ but we hear nothing of the injuries inflicted in the pankration. Indeed we are expressly told by Artemidorus ${ }^{32}$ that the pankration differed from boxing in being less dangerous, and this statement is borne out by the story told by Pausanias that Cleitomachus being a competitor on the same day in the pankration and in boxing asked the Hellanodikai to put the pankration first before he had been wounded in the boxing. ${ }^{33}$ For the socalled pankratiast's ear I can find no authority whatsoever. We frequently hear of the boxer's injured ear, and the crushed ear is regarded as the sign of an athlete. ${ }^{34}$ But though it may have been sometimes caused by a blow, it may quite as well have been due to wrestling, to which Philostratus ${ }^{35}$ expressly attributes it. It appears to have been precisely similar to the swollen ear so familiar to the Rugby footballer some years ago, and the ear-cap which the modern forward wears is identical with the $\dot{\alpha} \mu \phi \omega \tau i \delta \epsilon s$ worn by the Greek wrestler.

    The pankration must not be held responsible for all the evils for which Galen and later medical writers condemn it and which it shared with boxing and wrestling. Such sports when they become a profession have always a degrading influence and the evil effects were increased in Greece by the utterly unscientific system of training introduced by professionalism, a life of over-feeding, over-sleeping, over-exercise, the coarsening effects of which on body and on mind we can still trace in later art. In the case of boxing we can see how the sport itself degenerated and became more brutal and less scientific. But these evils are due not to the sport but to the abuse of it. What the pankration was at its best we can learn from Pindar ${ }^{36}$ and even in Xenophon when the evil had already begun we find the charming picture of the boy pankratiast Autolycus. The closest parallel to the pankration, the Japanese Jiujitzu, is certainly neither unscientific nor as practised by the Japanese brutal.

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    'Aкроұєєрьтнós is explained by Liddell and Scott as a kind of wrestling in which the opponents grasped one another's hands without clasping the body ( $\sigma v \mu \pi \lambda o \kappa \eta$ ), and most modern books of reference agree in regarding it as some form of wrestling. Krause interprets it as the exercise familiar to every schoolboy in which two opponents clasp one another by the fingers and


    test their strength．This he says was a special trick of the pankration． But though we do hear of a wrestler or pankratiast securing victory by breaking his opponent＇s fingers，${ }^{37}$ the position described by Krause could not occur in a real contest．

    The explanations given above are based solely on Pausanias＇story of Acrochersites and entirely neglect the much more accurate definition of Suidas．${ }^{38}$ áкрохєєрıбнós has properly speaking nothing to do with wrestling； it belongs to boxing，and to the pankration only so far as boxing formed part of the pankration．Plato in his Alcibiades distinguishes $\pi \rho o \sigma \pi a \lambda a i \epsilon \iota \nu$ and $\dot{\alpha} \kappa \rho о \chi є \iota \rho i \zeta є \sigma \theta a \iota .{ }^{39}$ ．The same distinction is found in Lucian，who also in another passage definitely explains àкроұєєрьба́дєขоє by the words каi
     same as $\pi \cup \kappa \tau \epsilon \dot{\epsilon} \epsilon \iota \nu$ ．It implies that the hand is extended，not clenched nor bound with any form of i $\mu a ́ s$ or caestus．It means＇to spar＇and is properly used not of the actual contest but of practice．Thus Aristotle ${ }^{41}$ as an instance of injury inflicted involuntarily quotes the case of a man who in demonstrating to another how to deliver a blow like oi áкрохєьрь५ó $\mu \in \nu \circ \iota$ accidentally deals him a serious blow．Philostratus in his rules for training lays down the principle that athletes who have over－eaten themselves－a practice for which the professional strong man was notorious in later times and which was indeed encouraged by trainers－must be strictly moderate in exercise．For example
     we find the similar combination $\sigma \kappa \iota a \mu a \chi \circ \hat{v} \sigma \iota \kappa a \grave{\imath} \pi \rho o ̀ s a \dot{a} \lambda \lambda \eta \lambda о$ ѝs $\dot{\alpha} \kappa \rho о \chi \epsilon \iota \rho \iota$＇－ そoitaı．$\dot{\alpha} \in \rho i \zeta \epsilon i \nu, \sigma \kappa \iota a \mu a \chi \epsilon i ̂ \nu{ }^{43}$ mean to beat the air，fight with an imaginary opponent，and áкроұєьрiцєбӨaь means to spar lightly with an opponent for practice and exercise．Sometimes a bag filled with sand called the кю́рикоs was used in the same way as the modern punchball，a light one by boxers，a heavier one by pankratiasts．${ }^{44}$ These various forms of exercise are classed together by Hippocrates as means of hardening the body and
    
    

    The training of the pankratiast would naturally be partly the same as the boxer＇s，but in his case $\dot{\alpha} \kappa \rho о \chi є \iota \rho \iota \dot{\sigma} \mu o ́ s$ appears to be used not merely of practice，but of the actual contest．Philostratus after describing the wrestler
     $\dot{\eta} \sigma \sigma o \nu .{ }^{46}$ We have seen that the use of the fist was certaiuly not forbidden in


    the pankration. At the same time one can understand that in a contest combining wrestling and boxing there is an advantage in striking with the open hand so as to be able to secure a grip without delay and also to avoid injuring the knuckles. A good illustration of such fighting is afforded by a fragment of a r.-f. kylix in Berlin ${ }^{47}$ (Fig. 2) on which we see a fallen pankratiast bleeding at the nose and bearing on his back the full imprint of his opponent's hand. The latter is leaping on him with one hand grasping his arm, the other hand drawn back to strike. A possible reminiscence of the word occurs in Nonnus' description of the struggle between Aristaeus and Aeacus, ä $\mu \mu а \tau \iota \chi \epsilon \rho \hat{\omega} \nu \dot{\alpha}$ а́крота́тє $\sigma \phi i \gamma \xi а \nu \tau \epsilon \varsigma .{ }^{48}$ We can see then how appropriate the term is to describe the preliminary sparring in the pankration. In boxing there can have been little sparring after the introduction of the heavy caestus, and therefore the word áкроұєєpıбرós which does not occur before the fourth century is confined to the training school.
    $$
    \text { G.- } \kappa \lambda \iota \mu а к \iota \sigma \mu o ́ s, \kappa \lambda \iota \mu а \kappa i \zeta \epsilon \iota \nu, \delta \iota а \kappa \lambda \iota \mu a \kappa i \zeta \epsilon \iota \nu .
    $$

    The lexicographers give the usual stereotyped explanations of this term
    
    

    Fig. 6.-Hebacles and Thiton. B.-F. Amphora in B. M. B 223.
    ation was suggested long ago by Hermann in connexion with the chorus in Sophocles' Trachiniae 497-530 describing the contest between Heracles and Achelous, and a comparison of the monuments leaves no doubt as to the


    correctness of Hermann's interpretation. клıдакi $\xi_{\epsilon \iota \nu}$ means to jump on to an opponent's back knotting one's legs and arms about him-to make as it were a ladder of him. The cognate word $\kappa \lambda \iota \mu a \kappa i$ is is used similarly of a woman who makes a ladder of herself by allowing some one to climb upon her back.

    Sophocles describes the struggle between Heracles and Achelous as an athletic contest. It was the pankration $\pi a ́ \mu \pi \lambda \eta \kappa \tau \alpha \pi a \gamma \kappa o ́ \nu \iota \tau \alpha \tau^{\prime}$ ä $\theta \lambda^{\prime}$ $a^{\prime} \gamma \omega \nu \omega \nu$, and Kypris stood by as umpire holding the rod, $\dot{\rho} a \beta \delta o \nu o ́ \mu \epsilon \ell$,

    $$
    \begin{aligned}
    & \eta_{\nu} \delta^{\prime} \dot{a} \mu \phi і \pi \lambda \epsilon \kappa \tau о \iota
    \end{aligned}
    $$

    

    Fig. 7.-Heracles and Achelous. R.-F. Stamnos. B.M. E 437. (Gerh. A.V.115.)

    Every detail in this passage recalls the representations of the contest on the vases, in the light of which the tó ${ }^{\circ} \omega \nu$ тátayos becomes at once intelligible. Heracles has his bow still slung across his shoulders and the 'clatter of the bow' mingles quite naturally with the 'clatter of fists and horns' in the scene depicted on Fig. 8.
    
    
    PANATHENAIC AMPHORA IN THE BRITISH MUSEUM (B 604)
    
    ATTIC GIMPHORA IN THE BRITISH MUSEUIV (3 196).
     'Hраклє́ovs dкообтє́ov. The scholiast is right: клєцакєбно́s does mean mounting on an opponent's back and this type is associated in art with Heracles in his contests with various monsters. A very favourite subject in early art was Heracles wrestling with the fish-tailed Triton. We find it on island gems, on bronzes from Olympia, in the perliments of the temple of Assos, in the archaie pediments from the Acropolis, ${ }^{500}$ and on numerous blackfigured vases (Fig. 6). ${ }^{51}$ Heracles attacks the Triton from behind and knots his arms round his neck: in the pediments where the group fills the angle space he sprawls beside the Triton, on the more ample vase spaces he is always
    
    
    represented astride the 'I'riton who vainly strives to loosen his grip. On a r.-f. stamnos in the British Museum E 437 by Pamphaeus (Fig. 7) we find the same type adapted to the contest with Achelous, who differs only from the Triton in the addition of the horn. This vase is, however, exceptional, Achelous usually being represented as a bull with a human head or body, while Heracles attacks him either in front or from behind and seizes his horn. Here too the motive is taken from the pankration or wrestling. On a b.-f. amphora in the Louvre, ${ }^{50}$ Achelous, who is here represented centaur-like with a man's body growing out of a bull's, seizes with his hand Heracles' left foot, an adaptation of the Antaeus type; on a b.-f. amphora and a hydria, both in the


    ${ }^{31}$ B.M. Vases B 201, 223, 224, 311, 312, 493,
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    British Museum B 228, 313 (Fig. S), ${ }^{53}$ we have, I think, a reminiscence of the Triton type. Heracles has seized Achelous by the horn and by the beard : Achelous has been forced on to his knees and Heracles raises his left leg in order to mount astride him. It is by the same means that Theocritus represents Heracles killing the Nemean lion, ${ }^{54}$ though the artistic type is not as far as I know employed for this contest.

    We see then that the explanation of the scholiast is supported by the evidence of an artistic type with which Sophocles must have been familiar. Heracles is represented constantly as 'mounting' on the Triton, and sometimes on Achelous. The motive, as we see from the literary and artistic evidence, is borrowed from the palaestra, and its identification with $\kappa \lambda i \mu a \xi$ is confirmed by the elaborate description of it in the account of Heracles and Achelous by Ovid, ${ }^{55}$ who faithfully preserves the old literary and artistic tradition.

    Further evidence is supplied by a line of Plato Comicus, $\Pi \rho \epsilon \sigma \beta$. 2.
     was necessary to get behind one's opponent either by turning him round $\mu \epsilon \tau \alpha \beta ı \beta a ́ \zeta \epsilon \iota \nu,{ }^{56}$ or by springing round him. $\mu \epsilon \tau a \pi \epsilon \tau \tau \epsilon v \epsilon \iota \nu$, to move a draughtsman, is an obviously appropriate variation for $\mu \epsilon \tau \alpha \beta \iota \beta a ́ \zeta \epsilon \iota \nu$, and $\delta \iota a \kappa \lambda \iota \mu a \kappa i \xi \epsilon \iota \nu$ is merely a strengthened form of $\kappa \lambda \iota \mu a \kappa i \zeta \epsilon \iota \nu$ perhaps denoting the success of the movement, just as $\delta \iota a \pi a \lambda a i \epsilon \iota \nu$ means to wrestle successfully, or throw. The other method is clearly described by Lucian in Anacharsis 31. Anacharsis draws a humorous picture of the Greeks advancing to meet an enemy's attack like boxers with clenched fists. 'And the enemy,' he says, ' naturally cower before you and take to flight for fear lest, as they stand gaping, you fill their mouths with sand이 $\pi \epsilon \rho \iota \pi \eta \delta \dot{\eta} \sigma a \nu \tau \epsilon \varsigma$ © $\dot{\kappa} \kappa a \tau a ̀$
    
    

    The кл兀цакıбнós may be used when the opponent is standing or when he is already on the ground, but both varieties belong to the pankration and not to ob $\rho \neq \dot{\eta} \pi u ́ \lambda \eta$. For it is impossible to throw an opponent in this way without falling oneself, and in the standing type as well as on the ground throttling is employed to force him to yield. The standing type is described by Philostratus in his picture of the wrestling Erotes. ${ }^{57}$ o ${ }^{\circ} \mu \epsilon ̀ \nu \eta \eta \rho \eta \kappa \varepsilon$ tò $\nu$
    
    
    
    
     кои̂дть каі є́ктадаі́одть. The type on the ground is described by Lucian in the first chapter of the Anacharsis, and at greater length by Heliodorus. ${ }^{58}$ Both


    types occur on the Tusculan Mosaic to which reference has been made; in both cases we see the attack made from behind, the legs turned round the opponent's body and the arms round his neck.

    Very similar is the Uffizi wrestling group, of which according to Hans Lucas the Mosaic group is a reminiscence. In the marble, however, the uppermost wrestler is not throttling his opponent and cannot have been so represented whether the present restoration of his right arm is correct or not. It is presumptuous to give an opinion without having seen the original, but so far as I can judge from photographs and casts I see no reason to doubt the general correctness of the restoration. The fallen wrestler is supporting himself on his left arm, and his opponent's immediate object is to break down that support. This could be effected by a blow. For the underneath wrestler's right arm being secured he can only guard his head with his left. The description in Heliodorus is to the point. Theagenes having forced the Aethiopian champion on to his knees twines his legs round him and then
     Aibioq à aौī $\chi \in \tau \grave{a} \sigma \tau \epsilon \in \rho \nu a$ and knotting his arms round his head he forces him down on his stomach to the ground. While a wrestler is supporting himself on his hands and knees his position is far from hopeless, and he can by a quick and vigorous movement often overturn his adversary and secure the advantage. Such is the moment selected by the sculptor of the Uffizi marbles : the victory is still undecided, the uppermost wrestler is anxious to make sure of his victory, the other is eagerly watching to take advantage of any carelessness on the part of his opponent and reverse matters. The situation can be illustrated by Philostratus' account of the death of Arrhichion. Arrhichion is being strangled by his opponent who is on the top with arms and legs entwined round him; but even as he is expiring he takes advantage of a moment's relaxation of the grip to kick his right leg free, and rolling over so as to crush his opponent's left side he seizes his right foot and twists it out of its socket with such violence as to force him to yield and so even with his last breath he secures the victory. ${ }^{59}$

    The term $\pi \lambda i \gamma \mu a$ preserved by Hesychius is apparently another name for $\kappa \lambda \iota \mu a \kappa \iota \sigma \mu o ́ s$. He defines it as $\beta \hat{\eta} \mu a$ à $\pi \grave{o} \tau \omega \hat{\nu} \kappa v \lambda \iota \circ \mu \epsilon ́ \nu \omega \nu \kappa a i ̀ \pi a \lambda a \iota o ́ \nu \tau \omega \nu$ öт $т \nu$ тараßáעтє؟ тоîs $\sigma \kappa є ́ \lambda \epsilon \sigma \iota ~ к а \tau є ́ \chi \omega \sigma \iota \nu . ~$

    $$
    \text { H.-á } \pi o \pi \tau \epsilon \rho \nu i \zeta \epsilon \iota \nu, \pi \tau \epsilon \rho \nu i \zeta \epsilon \iota \nu .
    $$

    The trick by which Arrhichion secured his victory appears to have been similar to that known as $\tau \grave{o}$ á $\pi о \pi \tau \epsilon \rho \nu i \xi \epsilon \iota \nu$, the invention of which Philostratus assigns to the Cilician pankratiast nicknamed, for the smallness of his stature, Halter. ${ }^{60}$ The latter, on his way to compete at Delphi, stopped at the shrine of the hero Protesilaus, to consult him and ask how he could
    
    at first by such an answer，but being a man of invention he devised to $\dot{a} \pi \sigma \pi \tau \epsilon \rho v^{\prime} \zeta \in \epsilon \nu$ ，understanding that the advice of Protesilaus was $\mu \grave{\eta} \mu \epsilon \theta i \in \sigma \theta a \iota$
    
     never defeated．We have seen already that Philostratus enumerates among the methods of the pankratiast $\sigma \phi v_{\rho} \hat{\varrho} \pi \rho \rho \sigma \pi a \lambda a i \epsilon \ell \nu$ ．In the LXXX．$\pi \tau \epsilon \rho v i \zeta \omega$ is used of Jacob supplanting Esan，and in the accomet of the birth of the
    入anti弓et，and Liddell and Scott translate it accordingly in the passage of Philostratus quoted above＇to kick off with the heel．＇One can only suppose that they took the translation on trust and did not verify the reference．For Philostratus leaves no possible doubt as to the true meaning，＇to seize by the heel and so throw．＇This meaning is required by every passage quoted and is in agreement with a further note in Suidas $\pi \tau \epsilon \in \rho \nu a-o ́ ~ \delta o ́ \lambda o s ~ к а i ~ \pi \tau \epsilon \rho \nu i \zeta \omega ~$ tò катаßád入ы．We have seen how Antacus grabs at the foot of Heracles and how in doing so he is forced on to his knees．Antaens represents clumsy untrained brute force．In the hands of a strong and active adversary the attack is far more dangerous and any one who has seen Japanese wrestle will umlerstand something of grips in which victory may be secured by falling， $\sigma \nu \mu \pi \lambda о \kappa \hat{\nu} \nu$ द̀v aỉs $\pi \epsilon \rho \iota \gamma i \gamma \nu \epsilon \sigma \theta a \iota ~ \chi \rho \hat{\eta}$ oîov $\pi i \pi \tau \tau \nu \tau a$ ．

    $$
    \text { I. - } i \pi \tau \iota a \sigma \mu o i .
    $$

    The last two sections will help us to menderstand these $\sigma \nu \mu \pi \lambda о \kappa a i$ and the $\dot{v} \pi \tau \iota a \sigma \mu o i$ mentioned ly Philostratus．$\dot{v} \pi \tau \iota a \sigma \mu o ́ s ~ m e a n s ~ ' f a l l i n g ~ b a c k-~$ wards．＇A favonrite Japanese throw is the stomach thow．A wrestler seizes his opponent by the shoulders or arms and throws himself backwards at the same time planting his foot in the other＇s stomach and thus throwing him heavily clean over his head while he himself falls lightly．The throw was known to the Egyptians，being represented on the tombs of Beni－Hassan． It is aceurately described by Dio Cassius ${ }^{62}$ in his account of a battle between the Romans and the Fazyges ：whenever any of them fell backwards he would drag his opponent after him and with his feet hurl him backwards as in wrestling．＇A similar method of defence is suggested by Pindar＇s description of Melissos in the third Isthmian ode．＇In craft he is as the fox that spreadeth out her feet and preventeth the swoop of the eagle．＇ 63 ＇This clearly denotes some form of $\dot{i} \pi \tau \iota a \sigma \mu o s$, and once more Antacus affords us an example of the failure of this means of defence and of that described in the last section．A b．－f．hydria in Munich ${ }^{6 t}$ represents him lying on his back with his right hand grasping Heracles＇left foot and his left leg kicking him in the stomach．But in vain．Heracles has seized his uplifted leg with his

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    \({ }^{63} 1.78\) ：
    \(\mu \hat{\eta} \tau เ \nu \delta^{\prime} \dot{\alpha} \lambda \omega \dot{\omega} \pi \eta \xi\),
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    \({ }^{64}\) Jahn， 114 ；Arch．Žtit．1878，x．
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    left hand and his head with the right, and forces leg and head together. The only other example that I know of such a position is a bronze, figured by Montfaucon, ${ }^{65}$ representing a wrestler fallen on his back apparently
    

    Fig. 9.-P.-F. Hydria. Munich.
    kicking his opponent in the face, but I have failed to discover any further details of this group.

    > J.-Technical Terms of Doubtful Meaning.

    It remains briefly to mention certain technical terms known to us for the most part only from lexicographers. Without further examples of their use any explanation that can be offered is merely provisional.
    $\dot{a} \gamma \kappa v \lambda i \zeta \epsilon \iota \nu$ (Pollux). Hesychius defines á $\gamma \kappa u ́ \lambda \eta$ as $\dot{\eta}$ тồ à $\gamma \kappa \omega \hat{\nu} \nu$ s $\kappa a \mu \pi \dot{\prime}$ and Grasberger therefore explains $\dot{a} \gamma \kappa \nu \lambda i \zeta \epsilon \iota \nu$ as seizing an opponent's neck in the bend of the arm. Another explanation is suggested by the
    
     in the same way. áyкv入i'̧єiv might therefore mean to 'ham' or strike behind the knee.


    $\dot{a} \gamma \kappa \omega \nu i \zeta \epsilon \iota \nu$ (Pollux), according to Krause = $\dot{\alpha} \gamma \kappa \nu \lambda i \zeta \epsilon \iota \nu$, according to Grasberger to drive one's elbow into an opponent's ribs, a trick of doubtful utility in wrestling. Perhaps on the analogy of other wrestling terms it might mean to seize an opponent by the elbow, a grip often represented.
    $\dot{a} \pi a ́ \gamma \in \iota \nu$ (Pollux), meaning unknown.
    
     $\chi \varepsilon \iota \rho i$ каi oủ $\rho \iota \pi \tau o ́ \nu \tau \omega \nu$. It means therefore to deceive an opponent by feinting either with hand or foot. Similarly a wrestler may by a false movement of his own lose his balance, and so Plato describes the errors into which a dialectician falls as $\sigma \phi \dot{\text { áд } \mu а т а ~} \hat{a}$ í申' éavто̂ таракє́кроvбтаı (Theaetet. 168 A).
    $\pi \lambda a \gamma \iota a \zeta \in \iota \nu$ (Pollux) usually interpreted as $\pi а \rho а к \rho о и ́ є \iota \nu . ~ P e r h a p s ~$ used in its natural sense 'to turn or throw sideways.' Thus Eustathius 1327. 8. R commenting on the Homeric wrestling match says $\pi \lambda$ áyıoı $\pi i \pi \pi \tau o v \sigma \iota \nu$.

    Other technical terms occur in the Oxyrhynchus papyrus iii. 466. The papyrus consists of three columns of which two have been published. The first is so much mutilated as to defy interpretation; it is marked like the second column by the repetition of the command $\pi \lambda \epsilon \epsilon \xi o \nu$ varied by $\dot{\rho} \epsilon \hat{i} \psi o \nu$ which does not occur in the second column. The latter is much better preserved and I have in previous articles suggested interpretations of certain portions of it. I have been unable to form any consistent idea of the movements described in lines $21-27$ and I have therefore appended the whole text in the hope that some one more experienced may be tempted to suggest a solution.

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    \(\pi а \rho a ́ \theta \epsilon \varsigma ~ \tau o ̀ ~ \mu \epsilon ́ \sigma о \nu ~ \cdot ~ к а і ̀ ~ \epsilon ̇ к ~ к \epsilon-~\)
    \(\phi a \lambda \eta \eta_{\varsigma} \tau \hat{\eta} \delta \epsilon \xi \iota \hat{a} \pi \lambda \epsilon \in \xi_{o \nu}\)
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    \(\sigma \dot{v} \dot{v} \pi \dot{\prime} \beta a \lambda \epsilon \tau \grave{\eta} \nu \delta \epsilon \xi \iota a ́ v\left[{ }^{\circ} \sigma\right] \dot{v}\)
    \(\epsilon i \varsigma o ̂ ̀ \dot{v} \pi o ß a ́ \lambda \lambda \epsilon \iota \pi \epsilon \rho \iota \theta[\epsilon i]\) ¢
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    ```
    \(\mu_{0 \nu} \beta a ́ \lambda \epsilon \cdot \sigma \dot{v}\) à \(\pi o ́ \beta a \lambda \epsilon \tau \eta \epsilon v v^{-}\)
    \(25 \omega \nu v ́ \mu \varphi \cdot \sigma \grave{v}\) aủ兀òv \(\mu \in \tau a \beta a ̀ s\)
    \(\pi \lambda \epsilon ́ \xi o \nu \cdot \sigma v ̀ \mu \epsilon \tau \alpha \beta a \lambda o \hat{v} \cdot \sigma \grave{v} \kappa \alpha-\)
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    \(\sigma \grave{v} \beta a ́ \lambda \epsilon \pi o ́ \delta a \cdot \sigma \grave{v} \delta \iota a \lambda \alpha ́ \beta\left[\epsilon^{\cdot} \cdot \sigma \grave{v} \quad \epsilon\right]\)
    \(\pi \iota \beta\) às áváклa \(\cdot \sigma v ̀ ~ \pi \rho \rho \sigma \tau[\) às \(]\)
    30 ảvávєvє кaì єis aủtò[ \(\nu .\).
    ```

    

    My thanks are due to Mr. Cecil Smith for permission to publish various vases in the British Museum, and also to Mr. H. B. Walters for constant assistance and advice, particularly with regard to the mythological types.
    E. Norman Gardiner.

    ## POEMANENUM.

    ## [Plate VI.]

    The site of Poemanenum is a vexed question in Mysian topography, on which no clinching evidence is as yet forthcoming: it is important for its bearing ( $\alpha$ ) on the Roman road-system, and especially on Aristides' routes, and (b) on the geography of the Byzantine wars. The position of the place may thus be deduced from two sets of data relating respectively to the Roman road-post and to the Byzantine fortress : those who work from roadevidence alone tend to place the site either on the Aesepus at Gunen, or, more vaguely, in the Tarsius valley: those who lay stress on the Byzantine evidence point inevitably to Eski Manyas, a village some few miles south of the lake of the same name.

    The claims of Eski Manyas to the Byzantine site appear to me incontestable : ${ }^{1}$ to put quite briefly what has often been discussed at length, we have here remains of the strongest Byzantine castle in the district, in a position corresponding to what we know of Poemanenum ; and, besides this, an echo of the ancient name is evidently preserved. ${ }^{2}$

    I venture to differ, however, from Dr. Wiegand as to the importance of Eski Manyas as a natural road centre: its direct communication with the plain of Balukiser is a little used horse-track, while, of the two highroads which intersect at Manyas on Dr. Wiegand's map, the PergamonCyzicus would pass more expeditiously west of the lake, while his ápxaia $\beta a \sigma \iota \lambda \iota \kappa \eta$, as the later route given by Hadji-Khalfa ${ }^{3}$ shews, need never rise so far into the hills. If this reasoning be correct, Manyas was the Byzantine site, and the Roman lay elsewhere.

    Such a theory has nothing in itself improbable: the territory of the Poemaneni marched with that of Miletopolis on the east, ${ }^{4}$ and may well have extended to the Aesepus on the west : there is thus ample room for a


    ## Voyages, 1845, ii. 139-40).

    ${ }^{2}$ Cf. especially a form noıuaviou which occurs in several episcopal lists.
    ${ }^{3}$ Trans. Norberg, ii. 530. The road passed from Ulubad bridge by Salyr to Körpeagatch.
    ${ }^{4}$ A boundary stone was found at Mihallitch (Ath. Mitth. xiv. 247, J.H.S. xvii. 271, 13, cf. il. xxiv. 24).
    second site, while the transfer of population to better protected positions in troublous times is a common phenomenon.

    The evidence of Stephanus is wholly in our favour: he describes
     the (Byzantine) fortress and the (Roman) village on the road.

    The Peutinger Table, to turn to the road evidence, places Phemenio between Cyzicus and Argiza (Balia Bazar, on the upper Aesepus) ${ }^{5}$ on the road to Pergamon. This statement taken alone has led to the theory that Poemanenum was at Gunen (on the lower Aesepus), and an inscription from the latter has been restored with the name $\Pi] \eta \mu[a \nu] \eta \nu \hat{\omega}\left[\nu^{6}\right.$ : this, however, granting the restoration to be correct, proves at most that the territory of the Poemaneni extended to Gunen, while Aristides definitely separates the springs on the Aesepus (certainly at Gunen) from the temple of Asclepius at Poemanenum, which lay on his way thither. Gunen, then, may be discarded.

    Prof. Ramsay in his Historical Gcographey ${ }^{8}$ placed Poemanenum in the Tarsius valley, seeing that the Pergamon road must inevitably pass west of the lake. We have evidence for a Roman road about Balia (probably the Ergasteria of Galen, ' 440 stades from ('yzicus on the way to Pergamon'), ${ }^{9}$ and the natural route thence to Cyzicus is the Tarsius valley. Munro, ${ }^{10}$ after much consideration, inclines to the opinion that 'if Aristides was making for Gunen' (which view Munro was forced to accept later'), ${ }^{11}$ ' Poemanenum would fall about five miles north-west of Ilidja.'

    The chroniclers of Barbarossa's expedition ${ }^{12}$ throw a fresh light on the subject. The army, on its way from Lampsacus to strike the Macestus valley road, after crossing the Aesepus, passed a 'pulus undique stagnuns' (the lake of Manyas) and encamped 'inter oppidum Ypomenon et ciritatem Arch("ngelon.' ${ }^{13}$ Ypomenon is certainly the fortress of Manyas, while the civitas Aichungelos may well represent the town about the church of S. Michael, which appears to have succeeded the temple of Asclepius at Poemanenum. ${ }^{14}$

    In 1904 I was tempteri by the usual mysterious rumours to visit the new Circassian village of Alexa, on the left bank of the lower Tarsius. ${ }^{15}$ Alexa is one of many settlements which have been attracted by the rich grass-lands of the broad valley, here separated from the plain and lake of Manyas only by the low ridge on which Hadji Paon stands. Overlooking the valley just west of the village is a hill crowned by a grove of small but well-grown oaks, a peculiarity shared by none of the surrounding hills; though the valley at this point is said to be full of ancient remains right down to, and even


    

    STELE FROM MYSIA.
    
    beyond，the river，this particular hill is considered the surest place for stones， and rubble foundations are visible in a clearing among the trees on the top． Such a site，facing due south，and enjoying，as I was told，immunity from the fevers of the lake plain，is perfectly suitable for a temple of Asclepius，what－ ever truth there may be in the villagers＇story of an ancient hammam discovered on the slope of the hill．The grove of oaks，again，may well be referred to the ancient Zeus，who appears from the autonomous coins of Poemanenum to have preceded Asclepius．

    The comparative paucity of inscribed stones may be accounted for by the newness of the settlement and by earlier plundering of the site both in modern times by neighbouring villages and very possibly also by the Byzantine builders of the castle at Manyas．Worked marble blocks are common both at Alexa and at the next village below（＇Tchaoush Keui），while a thorough search of the house walls－a delicate business in a Mahometan village－ would probably increase the list of inscriptions．

    Beyond this，remains of two ancient bridges over the river are said to exist，one immediately below the wooded hill，another half an hour higher ： the river was too high at the time of my visits to allow of my seeing any－ thing but very doubtful remains of the northern abutment of the first．

    It is more important to note that the site at Alexa lies within a few minutes of the modern road between Panderma and Balia，which，taking ad－ vantage of a low way in the hills，passes through the neighbouring villages of Tchakyrdja and Hadji Paon；this road leaves the Tarsius valley at Boghaz Keui to avoid the gorge and passes through Ilidja，descending into the valley again above Kailar．An eastern branch of it passes through Shamly to Balukiser．The road between Alexa and Balia，therefore，would represent the Poemanenum－Ergasteria section of the Pergamon road while the Shamly route was probably that taken by Aristides on his way to the Aesepus．

    The coins shewn me in the villages included imperial of Cyzicus（at Tchaoush Keui）and at Alexa a much worn autonomous coin of Poemanenum itself ；of this I have only found two other examples in the country（at Panderma and Balukiser respectively）during four seasons＇collecting．

    Revisiting Alexa in 1905 I found the following inscriptions：－
    1．By the river：fragment of marble funeral relief．Letters 02 ．

    | $A N \Delta P$ | ＇А $\downarrow \delta \delta \rho[о \mu \dot{\prime} \chi \chi$ ？М $\eta$ т $\rho o$ ？－ |
    | :---: | :---: |
    | $\Delta \Omega P$ | $\delta \dot{\omega} \rho\left[o v, \chi \chi^{a i ̂ \rho \epsilon}\right.$ ． |

    2．House－wall of Osman Effendi ：marble $\cdot 17 \times \cdot 22$ ．Letters ${ }^{\prime} 01$ ．

    105
    AIONYEIOY
    חOEIAEOEITOYTOYAC
    EETIAIOEEETIAIOY
    －EOфPA乏TOY O $\triangle$ OTOミ๑EO

    Diovvaiou
    
    ＇E $\sigma$ tıaios ${ }^{\text {＇E }}$ бtıaiou
    Eqофри́бто⿱
    $\Theta \epsilon]$ ódotos $\Theta \epsilon o[\delta o ́ t o v$

    3．Ibid．：worn－bluish marble slab at foot of stairs， $1.08 \times 0.63 \mathrm{~m}$ ．，with relief of herm in arched naiskos raised on steps．Letters＇03．

    | IOY | $\cdots$ iov |
    | :--- | :--- |
    | IIIE | $\chi] a i ̂ \rho \epsilon$ |

    Other inscriptions from Alexa are published in J．H．S．xxv． 60 （22）；cf． C．I．G． 3700 ；ibid． 61 （23）．See also below，No． 6.

    At Tchaoush Keui are the following ：－
    4．Fragment with bust in relief．Letters 02 ．

    | पA | $\left.\dot{\nu} \pi{ }^{\prime} \dot{\mu} \mu \eta\right]^{\prime} \mu a$ ． |
    | :---: | :---: |
    | －aloyer | 「aiou $\Sigma[\operatorname{e\rho \beta }$ ¢ $\lambda$ iov？ |
    | ＜lOYY | \ov］kiov v［iov |

    5．Banquet stele，$\cdot 08 \times \cdot 60$ ，broken．Letters $\cdot 02$ ． MHNOфI＾EMHNO＠EMIDO乏 M $\eta \nu o ́ \phi i \lambda \epsilon$ M $\eta \nu o \theta^{\prime} \mu \iota \delta o s$ ， HP $\Omega \phi I \wedge O П A T P I X A I P E$ $ך \rho \omega ~ ф \iota \lambda o ́ \pi а т \tau \rho \iota, \chi a i ̂ \rho \epsilon ~$
    Below and to r．relief of herm on steps．
     Sculp． 835 （Zeleia ？）：on a basis Ath．Mitth．vii．25゙4， 24 （Cyzicus）．I also saw fragments of a second banquet relief，and of a horseman relief，and bought the lower half of a bronze plaque of Roman date with relief of Cybele enthroned in naiskos flanked by Hermes Cadmilus and Artemis．${ }^{16}$

    From Chaoush Keui comes the stele［Pl．VI．］，discovered and photo－ graphed by Mr．A．E．Henderson at Yeni Manyas，and now in the Imperial Museum（No．1502）．

    The dimensions of the stele are 1.08 by 0.70 metre：the reliefs are somewhat unskilled and flat．The upper represents the deceased，accom－ panied by（a）an attendant with spare spears and（b）two dogs，riding right with uplifted spear towards a wild boar，already seized by one of the dogs ： the thick，clumsy outlines（especially the shapeless head and neck）of the horse do not suggest Greek models．

    The lower relief shews a somewhat unusual type of the funeral banquet： the wife of the deceased takes her place，as usual，on his couch，while a second female figure is represented seated on a throne（which has lion－ head supports）to the right of the spectator，and receiving a patera from the reclining male figure．

    All the components of the upper relief occur，if not in this exact com－ bination，on the＇horseman＇stelae characteristic of Thrace．Dumont，in his


    analysis of their types, ${ }^{17}$ cites eight examples of the hero hunting; in seven his quarry is a boar, in the other a stag. In two cases he is armed with a spear, and in seven examples he is accompanied by a dog. In one at least he is followed by an attendant with a spear. Finally, in nine cases the 'horseman' relief is associated with the 'banquet' relief.

    Dumont's No. 57 seems the nearest parallel to our own stele: on it the horseman gallops right holding a spear, his mantle floating in"the wind; he is accompanied by a dog and attacks a boar.

    Nor are we without parallels at Cyzicus itself, where the horseman relief is fairly common: in particular a stele from Ermeni Keui with two reliefs published by Dr. Mordtmann in Ath. Mitth. vii. 253 (23) bears marked resemblances, in type at least, to the Manyas reliefs: the style is radically different ('sehr hohes und sorgfiltig gearbeitetes Basrelief') but the horseman scene (here the lower relief) is a very near parallel. Dr. Mordtmann describes it thus: 'Mann auf einem sich bäumenden Pferd, schwingt den Speer nach einem Wolf oder eber-artigen Thiere. Hinter ihm ein Mann den Speer auf den Riicken. Unter dem Pferd ein Hund.'

    As far, then, as type is concerned, we should consider this stele one of the monuments of the immigrant Thracians, of whom we have so many traces in this part of Asia Minor, ${ }^{18}$ and whose place is aptly enough filled to-day by the horse-loving settlers from the Caucasus.

    Still more interesting are the traces, first pointed out to me by Mr. G. F. Hill, of Persian influence : to it must be referred the costume of the two figures in the upper relief, and the treatment of the tail and mane of the horse. Both of these are tied or plaited, the forelock of the mane forming a kind of crest. This is shewn frequently in pure Persian monuments, ${ }^{19}$ while the tied tail occurs also on the coins supposed to have been struck by Evagoras II. in Caria: ${ }^{20}$ on these coins the pose of the rider sometimes closely resembles that of our 'hero.'

    A further point of interest, shewing the curiously partial action of the Persian influence, is the treatment of the boar's mane: the gap in the middle is a peculiarity common to certain districts all within the range of Greek influence. ${ }^{21}$

    On the other side of the lake, at Yenije Keui, Munro discovered ' $a$ marble slab with a sculptured relief of three horsemen in Oriental garb galloping over two corpses. The style and types resemble those of the

    Lycian reliefs': ${ }^{2: 3}$ and higher up the Karadere I saw a mutilated lion in marble which certainly betrayed non-Greek influence, especially in a curious convention of loops set in rows to represent the hair of the mane.

    Another inscription probably belonging to the series is published in Syllogos viii. 171 (1). The provenance is given as 'near Miletopolis,' ${ }^{23}$ the inscription being. communicated by Nicodemus, Metropolitan of Cyzicus, who placed Miletopolis at Hadji Paon ${ }^{24}$ (Kiepert's Adji Bunar). The text runs :
    
    
    
    The beginning is possibly to be restored $\mu \epsilon \tau \grave{a}$ tò $\sigma \epsilon] \iota \sigma \mu \grave{\nu} \nu$ ú[ $\nu a \theta] \epsilon i \varsigma$, but, as we know nothing of the stone, conjecture is rash: the restoration $\sigma \epsilon \iota \sigma \mu o \nu$, however, has the advantage of giving an appropriate cause for the dedication inland. It should be noted also that ( (ו) K $\lambda a v \delta \iota a \nu o s ~ ' А ~ \sigma \kappa \lambda \eta$. is one of the few magistrates' names which occur on the imperial coins of Poemanenum : ${ }^{25}(b)$ that this coin is of Commodus as Caesar : and $(c)$ that an earthquake destroyed Smyrna in the last years of M. Aurelius. ${ }^{26}$ The type of the coin-an Eros similar to the Parian-is unique in the district, and it is possible that EP $\Omega T O \Sigma$ should replace $\Pi P \Omega T O \Sigma$ in line 7, and that the dedication refers to the statue shewn on the coin.

    I take this opportunity of publishing the following :-
    6. Panderma, Levon Effendi: stele with two relieis, the upper broken away except remains of altar, Zeus and eagle: beneath. Letters '015.

    ## OYAPIC PI $\omega O C \Pi \omega \wedge \wedge I \Omega N A E \Pi I$ <br> TAFINOY $\Theta E O$ YANE $\Theta H A E I K E T E Y \omega N$

    
    The lower relief represents a man leading bull r. to sacrifice. This stele is possibly from Alexa, since with it was a small square base with relief, of which I saw a counterpart in Alexa.
    7. Fragment with remains of incised outlines of feet, inscribed (letters -015).

    | POY | HTA $\Delta \phi$ | A $\Sigma K \Lambda$ | NHT |
    | :--- | :---: | :---: | :---: |
    | OY | O | HחIA | O $\Delta S$ |
    |  |  | $\Delta O Y$ | POY |


    
    
     Хат § $\hat{\eta}-\Pi a \gamma \omega ̀ \nu$ K!ot.
    25 Babelon, Inv. ; Wecldineyton 996 (Commodus) ; cf. also Zeitschr. $f$. Num. iii. 123.
    $\because$ Waddington, Vie d'Aristide, 11p. 66 ; cf. Dio Cass. Ixxi. 37.

    There are many other similar monmments from Cyzicus，Dethier Eipig． By：Pls．VI［－IX incl．；Ath．Mitht．vi．122，4；vii．252，18a，b；x．207．32； ct．C＇I．G．6485．Outside Cyzicus，cf．Fraenkel Inschr．v．Perg．574，C．I．G． 4945－6．

    The Thrulitu Kome stele（J．II．S．xxiv．21．4，Imperial Museum，No．1503） is now said to lave come from Mahmun Keui．

    The correct restoration of the honorary inscription of＇Irophimus（J．H．S． xxiii．77．8）is $\Gamma N W] \mathrm{MH}[\mathrm{B}] \mathrm{OY} \wedge \mathrm{H}[\Sigma K \mathrm{KAl} \triangle] \mathrm{HMOY}$ ，etc．

    8．Apollonia（copy communicated by M．Alphonse Serafimoff）．
    Stele with pediment：

    ```
    АГO^А\OmegaNI\triangleO\SigmaПPA王IOY
    ТН\SigmaПРА壬OYTOYГА
            TP\OmegaNO\Sigma
    ```

     тทิऽ Праछًiou тô Па－ триิขos

    F．W．Hasluck．

    ## Note on an Inseripition from Murmara．

    The following epigraphic text from Marmara，published by M．J．Gedeon II роко́и $\eta \boldsymbol{\sigma} \sigma$ s，${ }^{2}$ p．90，is not without importance for the history of Cyzicus and lroconnesus in Imperial times．Gerleon published（1）copies taken by himself of three fragments，and（2）a copy，communicated by a friend，takeu from the stme stone when in a more perfect condition．

    | （1）$a$ | $\gamma$ | $\beta$ |
    | :---: | :---: | :---: |
    | HAIOENITEPIE | ATOKAİA | OKOPNHNIOE |
    | KAIEMETEAE ${ }^{\text {P }}$ | OYミA「 ${ }^{\text {ONA }}$ | Y |
    | APXOYNTOE | $\wedge \triangle E K I A N O Y$ | IEPHE |
    | EתEYTYXIDH | $\Sigma E Y T Y X I \triangle O Y$ | YTOKPATO |
    | İTHAAHNANE | इTHEEN |  |
    | IKOYNTOEEPM | $\triangle \Omega P O Y T O Y$ |  |
    | O＾A | ENOYTHE |  |
    | TPOE | OYMENEY OPO $^{\text {O }}$ |  |
    | $\Sigma \wedge A B O N T O \Sigma A I \triangle$ | NIOYIOYAIOY |  |
    | APXOYNTOE |  |  |
    | YГITAPOEP |  |  |
    | P「OYIEPHE |  |  |
    | PIOEKO $\triangle P$ |  |  |
    | ATOKAIEAP |  |  |


    ## HAIO $\operatorname{LNITEPIEPH\Sigma ATOKAIEAKAIEПETE~}$ АE $E$ ETOY $\Sigma A \Gamma \Omega N A \Sigma A P X O Y N T O \Sigma K \Lambda^{*} A P X O Y N T O \Sigma$ AYTOKPATOPO $\Sigma K A I T I T O Y A I A A \triangle P I A N O Y * \Sigma \Omega \Sigma I$ ГENOYTOYMENO ${ }^{\text {PPO }}$ IIEPH乏AMENOYTHETPO乏 PIOEKOAPATOYATOKAILAPKAIEAKAIEMETE <br> АE $\Sigma E T O Y \Sigma A \Gamma \Omega N A \Sigma A N T \Omega N O I K O Y \Sigma \odot E O K P I$ TOYӨEOKПOYIEPH乏ATOKAIEAKAIEMETE AEEETOYミA「תNA乏

    （1）is a careful copy，and the small space between（a）and $(\gamma)$ is easily restored：in（ $\gamma$ ）I have divided 11．6，7，which are printed by Gedeon as a single line：（2）is a very unintelligent copy（further perverted by the frequent recurrence of formulae which has distracted the copyist＇s eye）and evidently neglectful of spaces where the inscription is illegible：the first four lines are a mangled version of $11.1-8$ in（1），the rest carries us further．I have inserted $1(\beta)$ quite conjecturally in an obvious but not indicated lacuna in $1(a)$ ，supplying the Emperor＇s name from（2），where a comparison with $1(a)$ shews it is misplaced．

    The following is an attempt at combination ：－
    
    

    ```
    i\pi\pi]a\rho\chiov̂\nu\tauоя [K]\lambda. \Delta\epsilonк\iotaа\nuо[\hat{v}
    Eủv]\epsiloń\omega Eu̇tv\chií\delta\etas Eu̇tv\chií\deltaov
    \tau\eta```

