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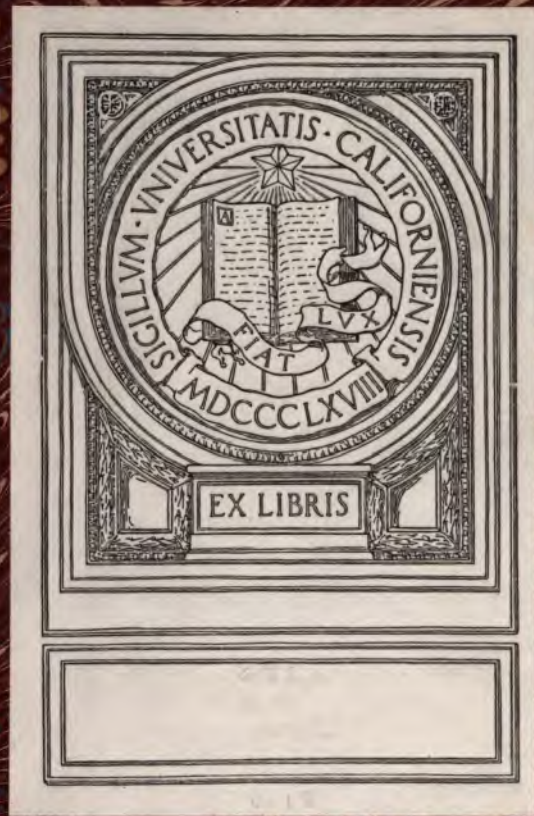
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TRANSACTIONS
OF THE
AMERICAN PHILOLOGICAL ASSOCIATION,
1887.I. — *The Monetary Crisis in Rome, A.D. 33.*

BY WILLIAM F. ALLEN,

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DURING the retreat of the Emperor Tiberius at Capreae, A.D. 33, Rome was visited by a crisis in the money market so severe and obstinate that credit was at last restored only by the direct intervention of the emperor, who advanced one hundred million sesterces (about four million dollars) from the treasury, in the shape of loans without interest to individual debtors; an occurrence which calls to mind the purchase of bonds by our Treasury department, for the purpose of relieving the money market during the panic of 1873. A tolerably full account of this affair is given by Tacitus (Ann. VI. 16, 17); and it is also mentioned briefly and incidentally by Suetonius (Tib. 48), and Dio Cassius (58, 21). The account given by Tacitus is in many points difficult to understand, by reason of his characteristic compression of style and habit of omitting details, which perhaps seemed unessential from his point of view, but are needed by us for a full comprehension of the circumstances. With the assistance of these other writers, we find the account given by Tacitus consistent, and, no doubt, substantially correct, while still presenting some obscurities where it may be supposed that his statements were perfectly intelligible to his contemporaries. I will give a free translation of his account of the affair, accompanied

with such comments and illustrations as may seem called for.

“At this time the accusers burst with great violence upon those who made a profession of loaning money at interest, in violation of the law of the Dictator Caesar, which regulates loans and landed property in Italy — a law which had fallen into desuetude, because the public welfare is less regarded than private gain.”

The law in question was probably passed by Caesar in his first dictatorship, B.C. 49, after his return from Spain and Massilia. We learn at this time of two laws designed to remedy the economical embarrassments of society. One, temporary in nature, cancelled existing debts by the surrender of real and personal property (*possessionum et rerum*) according to the valuation which it had before the war, the disturbed condition of affairs having now, of course, lowered values (Caes. B. C. iii. 1, Suet. Jul. 42; Dio Cass. 41, 37; App. B. C. ii. 48). This law, called by Plutarch (Caesar, 37) *σεισάχθεια*, a shaking off of burdens, cannot properly be called a law to regulate loans and landed property, and cannot therefore be identified with Tacitus' law *de modo credendi possidendique*; besides that, it was a merely remedial and temporary measure, while the one here referred to must have been a permanent measure of policy. The other law is mentioned by Dio Cassius (41, 38), as the re-enactment of an old statute, forbidding any person to possess, *κεκτήσθαι*, more than 15,000 drachmas [*denarii*] (about \$2400) in gold or silver. This statement is evidently incomplete, and probably inaccurate; it may nevertheless contain in a distorted form some provisions of the law in question. If no person could have in his possession more than a certain fixed maximum of cash, the rest of his money he must invest or loan. Dio suggests indeed that the object of the law was to facilitate loaning; while the phrase used by Tacitus, *credendi possidendique*, may properly be applied to loans or purchases of land made with the balance above the prescribed maximum. We may therefore assume that this is the law of Caesar referred to in the passage before us.

This second law, therefore, may be assumed to have been of a permanent character, and to have defined Caesar's policy in regard to the economical condition of Italy. As to its provisions, we are left in the dark, except for the general assertion of Tacitus that it regulated loans and real estate, the unintelligible statement of Dio that it prohibited the keeping on hand of more than a certain sum of money, and another from the same author (58, 21), that it related to contracts. Perhaps we have a right to infer from these provisions, taken in connection with the events of the present year, that, as Mommsen says (iv., p. 626), it "fixed a maximum amount of the loans at interest to be allowed in the case of the individual capitalist, which appears to have been proportioned to the Italian landed estate belonging to each, and perhaps amounted to half its value."¹ Whatever the provisions of the law, it had become a dead letter; and the pecuniary embarrassments of the present year were caused by an ill-timed and badly-arranged attempt suddenly to put it in execution.

The next passage to be considered is one of great historical importance, which is, in spite of its brevity, a principal source of our knowledge of the Roman usury laws, but of which it is hard to see the bearing upon the occurrences in question.

"The curse of usury is in truth of long standing in the city, and it has been a most fertile cause of seditions, for which reason it was held in check even in ancient times, when morals were less corrupt. For at first the laws of the twelve tables forbade any higher rate of interest than ten per cent, the rate having before this been at the pleasure of the lender; then by a tribunician law it was reduced to five per cent, and finally loaning at interest was forbidden."

Two phrases in this passage require special discussion — *unciario faenore* and *vetita versura*.

That *unciario faenore* is one-twelfth of the principal for the

¹ Mommsen makes no citations or references in support of this statement, and I am unable to find any foundation for it except the provisions of this law as given above; his words, however, seem to me more positive than the evidence warrants.

original year of ten months — that is, $8\frac{1}{2}$ per cent for the year of ten months, and ten per cent for the year of twelve months — is the now generally accepted view of Niebuhr: it would make no difference in the question before us if we took it to refer primarily to the twelve-month year, in which case it would give a rate of twelve per cent. The fixing of this rate, ascribed by Tacitus to the Decemvirs, is placed by Livy one hundred years later, B.C. 356, and the reduction by one-half to the year 346. The attempt to suppress the trade of usury belongs to the year 342, by the so-called Genucian Law, *ne faenerare liceret* (Liv. vii. 42).

The word *versura* has caused some unnecessary trouble. It is sometimes explained as “compound interest”; *i.e.* to balance the account and then turn over the page (*vertere*), and open a new account where no interest had been paid, would be compound interest; and this is sometimes the meaning of the word. Its regular use, however, in classical Latin is explained by Festus (p. 37) as equivalent to *loan*: *versuram facere mutuam pecuniam sumere ex eo dictum est, quod initio qui mutuabantur ab aliis, non ut domum ferrent, sed ut aliis solverent, velet verterent creditorem*. This is illustrated by numerous examples in Cicero, *e.g.* Att. xvi. 2, 2, *non modo versura, sed etiam venditione, si ita res coget, nos vindicabis*; id. vii. 18, 4, *cum tale tempus sit ut . . . nec hoc tempore aut domi numos Quintus habeat, aut exigere ab Egnatio aut versuram usquam facere possit*. So v. 1, 2; v. 21, 12, etc. *Vetita versura*, “loans on interest were forbidden,” is therefore precisely equivalent in meaning to *ne faenerare liceret*; that is, it was not interest as such, *usura*, or even exorbitant interest, what we understood by “usury,” that was prohibited, but the trade of money-lending. So far as the language of these writers goes, it might have been still lawful to collect interest on debts; but to borrow money to pay a debt was forbidden, and thus the trade of money-lending — in that condition of society a fertile source of mischief — was made unlawful. It is not at all unlikely that the law went further than this, and — as so many crude reformers at all ages have desired — undertook to prohibit not only the trade in money,

versura, but interest altogether, *usura*. But this we have no right to infer; and if the law was passed, it was never enforced.

We shall better understand the question if we consider the radical difference between the business of money-lending in ancient times and in modern society. At the present day the legitimate business of bankers and other money-lenders consists in advancing funds to be employed in productive operations. The banker, when his business is carried on in a legitimate way, forms a necessary and useful intermediary between persons who have money which they do not understand how to use productively, and those who are engaged in industrial occupations in which they can use advantageously more capital than they themselves possess. Loans at interest, therefore, when credit is not strained to excess, are a necessary and useful part of the complicated industrial system of our time. It was quite otherwise in antiquity. There was no such thing as productive industry on any large scale. When money was borrowed, it was not to assist production, but for purposes of consumption, or, still worse, to pay for past consumption. Money was borrowed in order to pay debts; one debt incurred in order to cancel another; precisely what is expressed by the word *versura*.

There is no more fundamental contrast between ancient and modern society than in the place which industry takes in the minds of men and their relations to one another. The most striking feature of the organization of modern society is the co-operation of the resources of all classes and interests, for the furtherance of industry. This is done by means of banks and other monetary associations, through the instrumentality of which every industrial enterprise is able to make use of all the means which it can employ to advantage, and the accumulated wealth of generations is placed at the disposal of those who are engaged in creating more wealth. In the ancient world industry was held in no honor, and occupied no such commanding position. The few commodities which were required by the simple habits of society were manufactured by the slaves of the household; commerce consisted in

hardly more than bringing to the imperial city the forced contributions of the provinces; agriculture, the only branch of industry deemed worthy of a freeman, fell more and more into the hands of slaves.

The trade of the money-lender, *faenerator*, therefore, was deservedly in disrepute, because he rendered to society no service at all corresponding to the gains he derived from society. All his profits were of course drawn from the proceeds of industry, because all wealth is created by industry; but industry received nothing from him in return. We have a similar class in modern society, — we are all familiar with it from the pages of Pendennis, — and we know that this class, an excrescence upon society, is not to be ranked with that which stores up the unused masses of capital, and holds them in readiness for productive use. From this point of view it is easy to see why interest upon money was regarded by the ancients as fundamentally wrong. The explanation which they gave themselves, that money was by nature barren, and could not produce money as offspring — a notion which found expression in the figurative use of the word *τόκος* to designate interest — may seem fanciful at first sight. But it proceeded from a profound comprehension of its nature, as it existed in their day. No such argument against usury would be possible at the present time, for our loans at interest are really productive, and interest may properly be described as *τόκος*. But with the ancients money was borrowed only to relieve distress, or to provide means for debauchery; and for neither of these purposes did it seem to them right that interest should be paid. The historian goes on: —

“And many *plebiscita* were passed to put a stop to the devices by which the law was evaded; but repress them as often as they might, they sprang up again in astonishing forms.”

Of course the law was found impossible to execute. It probably undertook more than any legislature can accomplish, and at any rate economical forces and the selfish interests of men were too strong for it. Twenty years after its passage, B.C. 326, the authority over the debtor given by the old harsh

laws of debt was exercised so outrageously by one *faenerator*, that the laws of debt were as a consequence radically changed, so as to deprive the creditor of his power over the body of the debtor (Liv. vii. 28). Shortly after the Second Punic War, B.C. 193, Livy (xxxv. 7) still says that the state suffered from usury, *faenore laborabat*, and that although there had been many usury laws, *faenebribus legibus*, they had been successfully evaded, *via fraudis inita erat*. The method of fraud on this occasion was to advance the loan in the name of some *socius* or citizen of an allied state; and the remedy was to extend the provisions of the civil law to this class. In the last century of the republic it became the custom to charge the interest monthly and, by adding it to the principal, to obtain a very high compound interest. A certain check was placed upon the senatorial class, by public opinion; but this was a weak restraint, and the unblushing eagerness for gain of even the best among them is illustrated by the well-known case of Brutus, who, having, in the name of other parties, made a loan to the city of Salamis in Cyprus, where the legal rate was twelve per cent, with compound interest annually, demanded four times that rate, and called upon Cicero, the governor of the province, to assist in its collection (Cic. ad Att. v. 21, 10-13).

One of the chief obscurities in this passage of Tacitus is the difficulty of understanding the relation between this legislation and the law of Caesar, revived by Tiberius. As we have seen, the Genucian Law prohibited, if not the taking of interest under any circumstances, the making loans at interest, the trade of money-lending. Caesar's law, on the other hand, *de modo credendi possidendique*, περὶ τῶν συμβολαίων, although described by Dio as an old law revived, *πρότερόν ποτε ἐσενεχθέντα ἀνανεούμενος*, clearly had a different scope, aiming not to prohibit, but to regulate, the trade in money. That there was no attempt, either by Caesar or Tiberius, to *prohibit* the taking of interest, appears from the fact that the 100,000,000 sesterces advanced by Tiberius upon this occasion were for the purpose of loans without interest, *sine usura*; a circumstance which would not have

been noted, if interest had been altogether forbidden by law.

It appears that the proceedings to enforce the law emanated from the emperor himself. This is not stated either by Tacitus or Suetonius; but Dio Cassius says, in the passage just cited (58, 21), that "he revived the laws concerning contracts imposed by Cæsar"; *τοὺς νομοὺς τοὺς περὶ τῶν συμβολαίων ὑπὸ τοῦ Καίσαρος τεθέντας . . . ἀνενόησας*; mentioning it in connection with the death of Nerva, father of the emperor of that name, who, he says, committed suicide because he foresaw the troubles, *ἀπιστία καὶ παραχῆ*, that would result from an enforcement of the law.¹ The emperor Tiberius, with all his faults, a profound statesman, and a man who had a keen insight into the causes of the economical decay of his country, appears to have conceived the idea of remedying these economical evils by enforcing Caesar's law. In a remarkable letter addressed to the senate eleven years before (Ann. iii. 53-4), after touching upon the pettiness and inadequacy of the sumptuary measures proposed by that body, he goes on: "none of you see that Italy requires assistance from abroad, that the life of the Roman people is daily risked on the uncertainties of the sea and the tempests. And unless the resources of the provinces came to the rescue of masters, slaves and fields, we should have little reason to expect that our parks and country seats would support us." He does not speak here of free men or free labor; he means that Italy is wholly taken up with pleasure grounds and slave plantations; and that by neither of these can its population be supported. These words of Tiberius are a significant commentary upon the famous expression of Pliny: *latifundis perdidere Italiam*.² Feeling as he did about the economical condition of Italy, and seeing, too, as we can have no doubt that he did, the pernicious effects of the money traffic, it is not to be wondered at that the emperor undertook the enforcement of a

¹ It should be mentioned that Tacitus (Ann. vi. 26) does not mention this as having anything to do with the suicide of Nerva.

² It is shown by Mommsen in an article in *Hermes* (Vol. XI.) that Pliny's expression is much exaggerated.

law by means of which, in Mommsen's words, "every Italian man of business would be compelled to become at the same time an Italian land-holder, and the class of capitalists subsisting merely on their interest would disappear wholly from Italy." The experiment seemed worth trying.

"But now the praetor Gracchus, who presided over this court, influenced by the multitude of those upon whom the penalties of the law would be visited, laid the matter before the senate; and the senate, in great apprehension (for hardly any one was free from fault in the matter), begged the prince for indulgence; and by his consent a year and a half were allowed, within which time each person should adjust his business relations in accordance with the requirements of the law. From this there resulted a stringency in the money market, all debts being called in at the same time, and great amounts of cash being locked up in the treasury, by reason of the number of condemnations and confiscations."

In "from this there resulted a stringency," we must understand not the circumstance just mentioned, — the extension of the time to eighteen months, — but the original necessity of settling the accounts. Although eighteen months were now allowed for this, each person, as was natural, hastened to settle his own affairs as speedily as possible. But the ancients were not acquainted with the use of credit as furnishing a circulating medium; they were confined to the use of coin, and the coin could not be got at by reason of the recent confiscations. This is the historian's explanation, but it is quite inadequate. The amount of confiscation — even at the height of the reign of terror after the fall of Sejanus — could not have caused any such deficiency; and in fact, even if there had been any way of employing credit in effecting exchanges, the panic could not have been prevented. No doubt under this reign of terror there was much hoarding, and much coin was thus withdrawn from circulation: but the stringency was really created by the enforcement of the law, which caused a general disturbance of contracts, and set a great number of creditors to call in their debts all at once.

"To meet this difficulty the senate had ordered that every

money-lender should invest two-thirds of his principal in lands in Italy."

In this difficult passage we must first consider the meaning of certain words and phrases. The phrase with which it opens, *ad hoc*, usually means "besides." If that is the meaning in this case, it follows that the measure here described was a part of the original law, the enforcement of which had caused the trouble. In that case, this requirement of the senate would be an additional cause of embarrassment, over and above the requirement to settle within eighteen months. If, on the other hand, with most editors, we take it as meaning *in this view, for this purpose*, it is to be taken as a remedial measure, to help relieve the scarcity. But it is hard to see how the obligation to invest two-thirds of the debt in land could afford any relief. The very difficulty in the case was that the debtors could not get the money to pay their debts; how then could the creditors invest money which they could not get into their hands? Or, if they could, how would this help the matter? The thing needed was to enable the debtors to pay their debts, not to direct the creditors how to invest their funds.

In both these points we are helped out of the difficulty by Suetonius (Tib. 48), whose brief statement proves that it was a remedial measure, not a part of the original law; and that, therefore, *ad hoc* must be rendered "to meet this emergency"; and shows further how it was that it was intended to help solve the difficulty. His words, *cum per senatus consultum sanxisset*, "when he had required by a *senatus consultum*," show that the measure proceeded originally from the emperor, not from the senate, and that it is likely therefore to have been a device for the emergency, not a part of the old law. And what is made probable by these words is made nearly certain by the closing words, after the description of the provisions of the measure, *nec expediretur*, "but the difficulties were not resolved." We shall see presently, moreover, that this measure was essentially identical with Caesar's remedial measure of B.C. 49, and appears to be of a temporary and remedial character rather than a persistent policy.

Even more important is a provision of the *senatus consultum*, omitted by Tacitus, but given by Suetonius, by which alone we are in a position to understand it. His words are, "That the money-lenders should invest two-thirds of their estate in land, and the debtors should pay at once the same proportion of their debt." *Ut faeneratores duas patrimonii partes in solo collocarent, debitores totidem aeris alieni statim solverent.* This second provision, about the debtors, is not contained in Tacitus' account; perhaps it has dropped out of his manuscript (to which it is restored by Nipperdey) — more likely it was in his mind but omitted in writing because the matter seemed to him intelligible without it — a not unusual thing with him. In the first proposition Suetonius uses the word *patrimonii*, "estate," where Tacitus says *faenoris*, "principal" (a well-established use of the word in classical Latin, as in the phrase *faenus et impendium*, "principal and interest," Cic. ad Att. vi. 1, 4). Tacitus is evidently right, as the context shows; the statement of Suetonius may come from a confusion with the provisions of Caesar's law.¹

The relief measure in question, therefore, consisted in the requirement that the debtor should pay two-thirds down, and the creditor invest this two-thirds in land. As the problem to be solved was the difficulty of paying cash down, this can only be a clumsy and roundabout way of saying that two-thirds of the debt might be paid in land, the balance remaining for the eighteen months. Of course this could apply only to those who had land, and, in all probability, only to those who had hypothecated their land when obtaining their loan. It was, in a sense, a general foreclosure of mortgages, but differed from a true foreclosure in being summary, without legal process, and no doubt at a price for the land which

¹ It is an interesting fact, as showing the permanent policy of the empire, that the emperor Trajan made a similar requirement, only making one-third of the estate the proportion to be invested in land: *eosdem patrimonii tertiam partem conferre jussit in ea quae solo continerentur.* Plin. Epp. vi. 18, 4. Suetonius' use of the word *patrimonium* may have been borrowed from this nearly contemporary measure.

was to be ascertained, not by public auction, but by the assessment lists, perhaps of the previous year. In all these respects it corresponded closely to Caesar's law, only that that law applied to the whole debt, and allowed personal property, as well as real, to be taken in payment. Such as it was, it was a *σεισάχθεια*, or shaking off of burdens, a measure for the relief of debtors; and it naturally aroused the opposition of the creditors.

"But the creditors demanded payment in full, and those upon whom the demand was made could not, without losing credit, fail to meet their obligations. So they ran hither and thither with entreaties [*i.e.*, as Furneaux says, for money or time], then the praetor's tribunal resounded [*i.e.*, with demands, entreaties, and notices of legal proceedings]; and the purchase and sale of property, resorted to as a remedy, worked just to the contrary, because the money-lenders had laid aside all their money for the purchase of land, while the land offered for sale was in such quantities that it fell in price; the more heavily burdened any one was with debt, the harder he found it to dispose of his property in small lots, and many were ruined in their fortunes."

We must understand by this that the object of the money-lenders was to purchase entire estates, for which reason they refused to buy in small lots, as we shall see in the next passage. The demand made by the creditors for payment in full at once was, of course, in violation of the *senatus-consultum*, and might have been legally refused by the creditors. But business men could not afford to take advantage of a mode of settlement which would give a temporary relief, but destroy their business credit. To the creditors the proposition must have seemed wholly unjust. By waiting until their notes should fall due, and the inevitable collapse in the value of real estate should have come, in the meantime hoarding up such sums as should be paid on account, they would be enabled to buy large estates at a bargain; and such was the stoppage of trade and the glutting of the market that even small lots could find no purchaser. The debtors did not dare to insist upon their legal rights, and the *σεισάχθεια* was

a failure. There now remained but one resource, — the direct interposition of the government.

I have changed the punctuation in one place in this passage. In all the editions with which I am acquainted, there is a full stop after *condiderant*, — “The money-lenders had laid aside all their money for the purchase of land,” — and the passages which follow are joined with the sentence which tells of the emperor’s intervention. I propose to put a full stop after *provolvebantur*, and associate the intervening line with what precedes, as following *quia*. It has been said, “The purchase and sale of property, resorted to as a remedy, worked just to the contrary, because—.” To say “because the money-lenders had laid aside all their money for the purchase of land” is no explanation. That they had hoarded their money in order to buy land, could not, taken by itself, prevent the purchase and sale of land from working as a remedy, but rather the opposite; if money was hoarded up for the purchase of land, that was just the condition of things needed for a solution of the difficulties by the sale of land. But the circumstances taken in their connection: that the money-lenders had laid aside their money to buy land, and that so much land was offered that it fell greatly in price, with the significant fact, not mentioned directly, but implied in *distrahebant*, that their purpose was to buy up large estates when prices should touch bottom, and that for this reason they refused to buy the portions of estates which the debtors desired to dispose of; — in these circumstances we find a sufficient reason for the failure of the scheme. Two clauses, therefore, instead of only one, must be taken to follow *quia*.

“Dignity and reputation went to crash with the loss of fortune, until Caesar came to the rescue, and deposited 100,000,000 sesterces in banks, the debtors having the privilege of borrowing for three years, without interest, on giving landed security to the state for twice the amount of the loan. Thus credit was restored, and gradually it was found possible to borrow from private persons also. But the purchase of land was not carried out according to the prescriptions of the

senatus-consultum; for, as is usual in such matters, what was begun with vigor ended with remissness."

It should be noted that the banks referred to in the phrase *per mensas* were not private banking establishments, but that the money, as Dio Cassius tells us (58, 21) was placed in the hands of certain senators, ὑπ' ἀνδρῶν βουλευτῶν, who appear to have acted as the emperor's agents in making the loans.

Thus the plan of the emperor for averting the economical ruin of Italy, by taking up the reforms of Caesar, came to nought. Probably the mischief was incapable of remedy, for any economical system which rests upon slave labor contains in itself the seeds of decay. Probably, too, the plan itself, of the details of which we really know nothing, was insufficient and untimely; for the sagacious Nerva foresaw its failure. And when it had once failed, Tiberius — always characterized by a certain self-distrust and infirmity of purpose, and now old, broken in mind and body, and, we may suppose, thoroughly scared at the commotion his well-meaning action had excited — never had the heart to make another attempt.

II. — *The Tradition of Caesar's Gallic Wars from Cicero to Orosius.*

BY E. G. SIHLER, PH.D.,

NEW YORK CITY.

THE period of the dissolution of the Roman Republic is marked by the preservation of the memoirs of the man who most effectively hastened that dissolution. Caesar's Commentaries are the only survival of that type of literature, neither the memoirs of Sulla nor those of Cicero having been preserved. Unhappily, the bulk of work concerning this writer is done for boys, although, as one of the most eminent Caesar critics (I. H. Heller of Berlin) of our time has truly said, "of all writers, this one has written most exclusively for men."

In the vast literature concerning Caesar an exhaustive discussion of the tradition of his narrative in other and later classical writers seems as yet to have been lacking. Rüstow and Köchly, it is true, when adverting to certain topics and passages in Caesar, have cited statements in Plutarch and Orosius. Nipperdey has edited I. 54, 1, after the same writers, rejecting the manuscripts of Caesar, and Drumann has adopted a certain view, adopted by Florus and others, as his own. An acute paper which touches upon this subject is that by Eyssenhardt (*Bemerkungen zu der Frage über die Glaubwürdigkeit von Caesar's Commentarien*. Jahns Jhbb. 1862, pp. 755-764), who notes with great care points of divergence between Caesar on the one hand, and Dio Cassius, Appian, Plutarch, etc., on the other. Eyssenhardt suggests that there was bitterness in the mind of Asinius Pollio because Caesar (in the *Bellum Civile*) had omitted adequate mention of Pollio's services. Later, in 1878, Georg Thouret wrote *De Cicerone, Asinio Pollione, C. Oppio rerum Caesarianarum Scriptoribus* (*Leipziger Studien zur class. Philologie*, 1878, pp. 305-360). Thouret says, in a sweeping manner (p. 330),

that there was nothing concerning the Gallic war in Livy, Suetonius, Florus, Eutropius, Plutarch, Appian, Dio Cassius, "which had not sprung from the same source, and sprung from the same roots." We will see that this is by no means accurate. A paper by H. Rauchenstein, concerning Caesar's campaign against the Helvetii, is reviewed by Heller in the *Philol. Anzeiger*, 1884, p. 307. It seems that Rauchenstein lays excessive stress upon divergence of statement between Caesar on the one hand, and Plutarch, Appian, Orosius, on the other. But so little balanced is he that he calls Caesar's account of the taking of the bulwark of carts (B. G. I. 26, 4) "Eine muthmassliche Fiction."

In taking up the notices and accounts concerning the Gallic war in chronological order, we will have to observe three points: (1) The manner of reproduction. (2) Whether anywhere a real addition may be observed. (3) What there may be of critical bias or purpose. It is hardly necessary to say in advance that none of the accounts, in point of fidelity and precision, can be compared to the accounts of such modern writers as Merivale or Mommsen, or of Ranke in his last great work; although we must keep in mind that in the accuracy of our geographical knowledge we have a very considerable advantage over the ancient readers of Caesar.

1. Cicero's notices, as far as available, are those of a contemporary. Thus we learn from a letter to Atticus (*Ep. Att.* II. 18, 3), written in June, 59 B.C., and again from one written a month later, that Caesar had invited Cicero to accompany him to Gaul as *legatus*. We also see (*e.g.* *ad Fam.* III. 5) that young gentlemen of rank, after Cicero's return from exile, sought letters from Cicero to Caesar so as to obtain military tribuneships, and that their chief concern was to fill their pockets or to gain the notice of Caesar for future political advancement. Jest about the charioteers of the Britains are met with, *e.g.* *Fam.* VII. 6, to Trebatius: "In Britannia ne ab essedariis decipiaris caveto." Another passage shows one way in which people in the capital viewed Caesar's expedition to Britain, *Fam.* VII. 7: "In Britannia nihil esse audio neque auri neque argenti: id si ita est, essedum aliquod

capias suadeo et ad nos quam primum recurras" (May, 54 B.C.), and (Ep. Att. IV. 16, 7): "Etiam illud jam cognitum est, neque argenti scripulum esse ullum in illa insula, neque ullam spem praedae nisi ex mancipiis." In August of the same year Cicero congratulates his brother Quintus on the rare subject-matter for a new book afforded the latter by the expedition to Britain (ad Quint. Fratr. II. 15): "Te vero ὑπόθεσιω scribendi egregiam habere video: quos tu situs, quas naturas rerum et locorum, quas mores, quas gentis, quas pugnas, quem vero ipsum imperatorem habes!"

The result of the entire undertaking against Britain is well expressed (Q. Fr. III. 1, 10): "De Britannicis rebus cognovi ex tuis litteris nihil esse res quod gaudeamus nec quod metuamus." And to Att. IV. 18, 5: "A Quinto fratre et a Caesare a. d. VIII Kal. Nov. litteras datas a litoribus Britanniae proximo a. d. VI Kal. Octobr., confecta Britannia, obsidibus acceptis, nulla praeda, imperata tamen pecunia, exercitum e Britannia reportabant."

The younger Cicero in the field beguiled his time with writing Greek tragedies, e.g. *Erigonia* (cf. III. 5, 7). A letter from Britain reached Rome in a little more or less than a month (cf. ad Q. Fr. III. 1, 13; III. 1, 25). The ignorance or indifference prevailing at the capital as to geography is well illustrated by a passage in a letter dated Nov., 54. Marcus Cicero wishes to know whether he should give his letters addressed to Quintus to the couriers (*tabellarii*) of Caesar or to those of Labienus: "Ubi enim isti Nervii et quam longe absint, nescio." (Cf. B. G. V. 24, 2.)

After 54 B.C. there is an intermission in Cicero's letters of suggestive or important notices, down to 51 B.C.; not one word as to the great struggle of Vercingetorix. This hurricane Caesar had safely weathered, and was engaged in meeting several later and minor squalls in different parts of Gaul. The breach between the two surviving triumvirs had become an accomplished fact, and Cicero had become more definitely reattached to the party of the Optimates. His news about Caesar may have been somewhat colored by the filter through which it reached Cicero. Thus ad Fam. VIII. 1: "Quod ad

Caesarem, crebri et non belli de eo rumores, sed susurratores dumtaxat, veniunt; alius equitem perdidisse, quod, opinor, certe fictum est; alius, septimam legionem vapulasse, ipsum apud Bellovacos circumsederi interclusum ab reliquo exercitu."

2. Livy gave an account of Caesar's Gallic wars in books CIII. to CVIII., of which we have but the *Periochae*. In the *Periocha* of CIII., speaking of the Helvetians, he says, "quae (scil. gens) sedem quaerens per provinciam Caesaris Narbonem iter facere volebat." But it would require some violence to have Livy gather from Caesar that the Helvetii wished to go to Narbo, whereas their goal, the district of the Santones, was at least 200 miles away. *Narbonensem*, for *Narbonem* restores the sense, that being the official name of that province in Livy's time.

The losses of the Nervii are told with a slight inaccuracy, *Periocha* of book CIV., "donec ex sexaginta milibus armatorum mille superessent" (Caesar, B. G. II. 28, 2, "ex hominum milibus LX ad vix quingentos qui arma ferre possent, sese redactos esse"). The *Periocha* of book CVI. begins: "Gallorum aliquot populi Ambiorige duce rege Eburonum defecerunt"; Hertz unnecessarily brackets *rege*, which is both historically correct and grammatically necessary.

As for Velleius Paterculus, the generalities of his text need not here be noticed by us.

3. Frontinus, author of the "Strategemata," wrote his work during the reign of Domitian, 81-96 A.D., because he always refers to the latter as "Imperator Fl. Domitianus Augustus Germanicus," with pretty strong praise of his wisdom and ingenuity in military matters. Frontinus' illustrations of military art drawn from Caesar's Gallic wars are easily identified, and are substantially faithful to the original. They are found in II. 3, 18; III. 7, 2; 17, 6, and 7; I. 11, 3; II. 1, 16; II. 5, 20. One reference I am unable to place, II. 6, 3: "C. Caesar Germanos inclusos et ex desperatione fortius pugnastes emitti jussit, fugientesque aggressus est."

4. As for Plutarch, it would be unfair indeed to expect perfect historical accuracy from that illustrator of human

character and champion of all the virtues. We do find gross slips, *e.g.* in his life of Caesar, c. 18, where he says that the Helvetians amounted to 300,000, of whom 190,000 were fighting men. (Caesar, B. G. I. 29: 368,000, of whom 92,000 bore arms.) As for women and children defending themselves from the bulwark of carts, Caesar has nothing about it.

The campaign against Ariovistus is given in c. 19. There are two data there not derivable from the account of Caesar or from the extant manuscripts. Caesar himself (I. 53, 2, 3) says that with the exception of a handful (*perpauci*) the Germans were overtaken by Caesar's cavalry and slain. But Plut. Caes. 19: ἀριθμὸν δὲ νεκρῶν μυριάδας ὀκτῶ γενέσθαι λέγουσι. The other point is the statement of Plutarch in the same chapter that Caesar pursued the Germans for four hundred stadia to the Rhine, which is equivalent to *quinguinta*, but not to *quinque* milia passuum, the latter being the reading of Caesar's manuscripts. A gross inaccuracy is found in Plutarch's statement that there were not less than 170,000 fighting men cooped up by Caesar in Alesia, whereas the latter gives 80,000 (B. G. VII. 71, 3). Elsewhere, too, we detect slovenliness of reminiscence in Plutarch, as when he calls the Usipetes and Tencteri of Caesar's text Οὐσίπαι and Τενκτερίται. The famous motion of Cato to surrender Caesar to these tribes in atonement for his perfidy is quoted by Plutarch from Tanusius (Geminus), a contemporary historian (cf. Peter, *Fragmenta Historicorum Romanorum*). A proof that Caesar suffered from reverses in the campaign against the Arverni in 52 B.C. (Book VII.) καὶ δεικνύουσι Ἀρβέροι ξιφίδιον πρὸς ἱερῷ κρεμάμενον, ὡς δὴ Καίσαρος λάφυρον· ὃ θεασάμενος αὐτὸς ὕστερον ἐμειδίασε καὶ τῶν φίλων καθελείν κελευόντων οὐκ εἴασεν, ἱερὸν ἡγούμενος. This, too, is derived from some other source. And again, the surrender of Vercingetorix before Alesia is told by Plutarch with a certain detail greatly exceeding Caesar's extraordinary compression (VII. 89, 4: "Vercingetorix deditur"), ἀναλαβὼν τῶν ὄπλων τὰ κάλλιστα καὶ κοσμήσας τὸν ἵππον ἐξιππάσατο διὰ τῶν πυλῶν καὶ κύκλῳ περὶ τὸν Καίσαρα καθεζόμενον ἐλάσας, εἶτα ἀφαλάμενος τοῦ ἵππου τὴν μὲν πανοπλίαν ἀπέριψεν κτέ.

5. Suetonius, a contemporary of Hadrian, and at one time imperial secretary, composed his Lives of the Twelve Caesars about 120 A.D. The work of this important writer is justly famous, not only for notices of the most accurate detail drawn from the most reliable and original sources, but also on account of the absence of panegyric exaggeration. Whatever bias there may be in Suetonius' Caesar, it is not favorable. To illustrate: Acute study of the Commentaries has revealed the fact that Caesar, with consummate skill, has presented his conquest as a series of unavoidable acts, partly defensive and partly precautionary in character. But on this score Suetonius speaks with great bluntness (c. 24): "nec deinde ulla belli occasione ne iniusti quidem ac periculosi abstinuit, tam foederatis quam infestis ac feris gentibus ultro lacesitis, adeo ut senatus quondam legatos ad explorandum statum Galliarum mittendos decreverit ac nonnulli (Cato scil.) tradendum eum hostibus censuerint. Sed, prospere decedentibus rebus, et saepius et plurium quam quisquam unquam dierum supplicationes impetravit." A notice of supplementary character refers to the enlistment of a regular legion in Further Gaul. (Caesar, B. G. I. 7, 2: "Provinciae toti quam maximum potuit militum munerum imperat.") Suet. 24: "(legio una) conscripta ex Transalpinis vocabulo quoque Gallico — Alauda enim appellabatur — quam disciplina cultuque Romano institutam et ornatum postea universam civitate donavit." The amount of annual tribute levied upon Gaul by Caesar was given by Plutarch in his Caesar, 25, but is lost in the manuscript. In Suet. 54: "In Gallia fana templaque deum donis referta expilavit, urbes diripuit saepius ob praedam quam ob delictum." This, too, suggests a contemporary writer of Caesar's time bitterly hostile to him.

The criticism on Caesar's *style*, uttered by Asinius Pollio, we may here pass by; but Suetonius adds the following judgment of Pollio as to the Commentarii: "parum diligenter parumque integra veritate compositos putat." This judgment on its face appears as summarized by Suetonius. He derived it probably from the *Historiae* of Pollio, that famous, and, as Horace (Carm. II. 1) calls it, risky account of the

civil war, which, however, takes as its starting-point, not 49 B.C., but 60 B.C., the year in which the first Triumvirate was formed. The inference of Teuffel, therefore, is as sound as it is obvious, viz., that Pollio treated his subject pragmatically rather than in the annalistic fashion, and that he could scarcely forego treating of the Gallic war in the same fashion.

On the other hand, we know very definitely that a young partisan and ardent admirer of Caesar, Gaius Oppius, wrote a book dealing largely with the splendid and generous qualities of his patron; for example, relating a case of delicate self-sacrifice shown to this Oppius himself when the latter was ailing, told both by Plutarch (c. 17) and by Suetonius (c. 72). From Oppius, too, is derived Plutarch's statement (c. 17) that in that war (*i.e.* the Gallic) Caesar practised dictating letters to two amanuenses at the same time; *ὡς δὲ Ὀππιὸς φησι, καὶ πλείοσιν*. It seems a reasonable inference that kindred detail should be traced to Oppius likewise, *e.g.* about the sword of Caesar kept by the Arverni, the detailed narrative of Vercingetorix' surrender, to which we may advert further on. From the same source perhaps was derived the following in Suetonius, c. 58: "Obsessione castrorum in Germania (*i.e.* in the country of the Nervii, B. G. V.) nuntiata per stationes hostium Gallico habitu penetravit ad suos."

Whether the following is of the same origin I do not dare to conjecture; it seems intrinsically improbable (Suet. 67): "Diligebat quoque (scil. milites suos) usque adeo ut audita clade Tituriana barbam capillumque summiserit nec ante demperit quam vindicasset."

6. Julius Florus' Epitome of Livy was written about 200 years after the era of Augustus. This writer gives the most worthless reproduction of all, allowing his rhetorical pen to run away with him. Thus he says of the ships of the Veneti (I. 45, 5): "rudes et informes et statim naufragae cum rostra sensissent" — whereas Caesar had distinctly stated that the Venetian ships were invulnerable, as far as ramming by Roman prows was concerned (III. 13, 8). Equally slovenly is the reference to the Aquitani: "Aquitani, callidum genus,

in speluncas se recipiebant"; which blunder may have risen from a confused recollection of the *mines*, in the construction of which the Aquitani were experts (B. G. III. 21, 3). It is curious that so careless a writer, who even goes so far as to confound Gergovia with Alesia (§ 23), should have been quoted by Goeler as an authority on the campaign against the Usipetes and Tencteri, where he (Florus) substitutes Mossella for Mosa. The reckless bravery of some Roman legionaries in their attack upon the phalanx of Ariovistus is curiously exaggerated by Florus. Parallel citation will here be instructive:—

Caesar, B. G. I. 52, 5: "Reperti sunt complures nostri, qui in phalanges insilirent et scuta manibus revellerent, et desuper vulnerarent."

Flor. I. 45, 13: "Elatis super caput scutis cum se testudine barbarus tegetet, super ipsa Romani scuta salierunt, et inde in jugulos gladii descendebant."

Here, probably, Florus and other readers actually seem to have taken *insilire in phalanges* as "jumping upon"; and it is possible that "*et desuper vulnerarent*" in Caesar's text is a complement of Caesar's narrative added by some reader who derived that curious meaning from the words. We may therefore possibly be justified in bracketing these words with Dittenberger.

In the winter of 54–53 B.C. Labienus succeeded in encompassing the death of the Treverian chief Indutiomarus, who had been keeping his people in chronic revolt. Labienus accomplished his object by ordering that in a general sally all should attack Indutiomarus. (B. G. V. 58, 4–5.) Speaking of Indutiomarus and Ambiorix together, Florus writes thus: "Sed ille (Indutiomarus) fortiter a *Dolabella* summotus est, hic (Amb.) insidiis in valle dispositis dolo *perculit*." Evidently the rhetorician here again has contrived an antithesis. Perhaps some change like the following will restore the original text: Sed ille fortiter (pugnans?) dolo Labieni bello summotus est, hic insidiis in valle dispositis dolo (suo?) *perrupit*.

7. Appian's account of the Gallic war has reached us in the shape of a fragmentary abstract. The only notable dictum

in it is a confirmation of Plutarch's account (c. 22) of Cato's motion to surrender Caesar to the Usipetes and Tencteri for his perfidy: Appianus, ἐκ τῆς Κελτικῆς; 28, Κάτωνά τε ἐν Ῥώμῃ τῶν τις συγγραφέων φησὶ γνώμην ἐσενεγκεῖν ἐκδοῦναι τοῖς βαρβάροις τὸν Καίσαρα ὡς ἐναγὲς ἔργον ἐς διαπρεσβευσάμενους ἐργασάμενον.

8. Dio Cassius' reproduction is characteristic of that historian. Palpable indeed are his good faith, his painstaking reading, his scrupulous accuracy in many details; but these virtues are marred; his interpolation of long speeches which, although they are intended to be imitations of the great Thucydides, are purely the manufacture of Dio both in composition and argument. Dio's account of the Gallic wars of Caesar is found to form a great part of his work from 38, 31, to 40, 41. As the occasion for inserting one of his long-winded rhetorical performances, Dio chose the famous speech by which Caesar (I. 40) put an end to the panicky feeling of his men before moving upon Ariovistus. Here two reminiscences of Thucydides occur in phrases and terms of speech (38, 44, 4; 47, 4; cf. also 39, 50, 3; 40, 1, 2). There are of course many slips in detail, as when Ariovistus (38, 43) is called an Allobrogian. The Germans throughout are called Κέλται. The battle with Ariovistus is told with spirited detail, probably mostly drawn, however, from the sympathetic imagination of the historian. As regards the *insilire in phalanges*, Dio too seems to have conceived it like Florus: ἀνήλοντο τρόπον τινα καὶ ἔκοπτον αὐτούς.

It is an inaccurate statement, or at least one at variance with Caesar's own account, when Dio says (39, 1, 2) that before 57 B.C. a part of the Belgae were in treaty relations with Rome. Dio's reminiscence of B. G. II. 7, 1, is confused when he says that Caesar sent his light-armed troops and cavalry by night to guard the bridge over the Axona (it should be the oppidum of Bibrax).

The most arbitrary performance is the sketch of the naval battle with the Veneti (Dio, 39, 42 sq.), in which but slight regard is paid to the clear and precise narrative of Caesar. It seems indeed that whereas some of the finest pieces of writing

in Thucydides had been descriptions of naval battles, as those of Phormio near Naupactus, or of the Corcyraeans and Corinthians, or of the Athenians and Syracusans, the peculiar ambition of Dio impelled him to elaborate something in that line. And Dio is not merely independent of Caesar, but his description is positively incongruous with Caesar's. Caesar, for example, presents the device of the scythes for cutting down the halyards as the one thing which overcame the advantages of the Celtic fleet. Dio brings in the scythes as a subsidiary contrivance, applied near the end when the contest was virtually decided. Caesar says that the hulls of the Venetian ships were invulnerable to any ramming by Roman beaks. According to Dio, many of the Gallic ships were run to the bottom, etc.

Caesar's first five books are set forth in pretty even proportion; but books VI.-VII. are given more summarily by Dio, who evidently is wearying of his task. His reproduction palpably tapers off, and this too when a more acute reading of his author must have told him that the campaign of 52 B.C. and the rising of Vercingetorix were the most critical parts of the whole series of events, as they are the most stirring portion of the narrative. The surrender of Vercingetorix (Dio, 40, 41), it is true, forms an exception. He could have escaped (not according to Caesar — Mommsen, too, adopts Dio's version), but preferred surrendering his person. The personal appearance and the demeanor of Vercingetorix are again described with a detail which is not derivable from Caesar's bald two words, *Vercingetorix deditur* (VII. 89, 4).

It is more than probable that Oppius was the common source for the various relators of this episode. When Caesar sent a letter to Quintus Cicero in the latter's most critical stage of siege at the hands of the Nervii, he used Greek letters (V. 48, 4), and Dio adds the remark (40, 9, 3): *είώθει δὲ καὶ ἄλλως, ὅποτε τε δι' ἀπορρήτων τινι ἐπέστειλλε, τὸ τέταρτον αἰεὶ στοιχείου ἀντὶ τοῦ καθήκοντος ἀντεγγράφειν, ὅπως ἂν ἄγνωστα τοῖς πολλοῖς ἢ τὰ γραφόμενα.*

9. The last of our authors is Paulus Orosius, a younger contemporary and protégé of St. Augustine. While it came

to pass that within four centuries Caesar's *Commentarii* were taken for the work of Suetonius Tranquillus (on which subject see at length the preface of Nipperdey), Orosius' reproduction, on the whole, may be called the most faithful, as it is the last of all those to whom we are wont to assign the term classical in the wider sense. Here and there the effect of Caesar's style upon his own is tangible, *e.g.* VI. 7 (speaking of the Helvetian Orgetorix): "Quo caeteri optimates correpto et ad mortem coacto cohibere tamen semel animatas in praedam plebes nequiverunt" (facile factu, VI. 10). His view of the phalanx of Ariovistus and how the Roman legionaries attacked it agrees on the whole with that of Florus: "Pugna maxime gravis ex phalange Germanorum fuit, quam coacto in unum agmine scutisque supra capita contextis ad irrumpendam Romanorum aciem tute undique praestruxerant. Sed postquam aliqui Romanorum militum, agilitate audaciaque insignes, supra obductam saliere testudinem, scutisque singillatim velut squamis revulsis, *desuper* nudos deprehensorum detectorumque humeros perfoderunt, territi hostes novo mortis periculo terribilem dissolvere compagem." Orosius also read that the flight of the Germans to the Rhine covered "quingenta milia passuum." It is noteworthy that in winding up his account, Orosius could not forbear making an allusion to the latest crisis in the affairs of western Europe when the Visigoths under Ataulph and other leaders were pressing upon southern Gaul—as they later settled even in Spain. Gaul personified is made to say, "Ita me Romani inclinaverunt, ut nec ad Gothos surgam." But this was natural, for a province could not fight for that nationality which it had long lost.

III. — *On the Relative Value of the Mss. of Terence.*

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THE study of manuscripts has become a science. The manuscripts of an author are classified into groups or families, from which are formed the archetypes of the families, and on this structure is built an earlier archetype. The laws of heredity apply to the descent of Mss. Genealogy is carefully studied. The oldest, as a rule, contain the purest texts, but there are possible exceptions. A late copy may have been made from a very old Ms., or an old Ms. may be the offspring of a rapid succession and hence corrupt. In a large number of Mss. of all ages it is quite likely that there may be a comparatively late one of great value. This is more probable if the author was a popular one in the time of literary activity.

There must be in every Ms., as in everything else, something of good. Each has a history and an individuality. This becomes plain when we study the growth of errors. Frequent copying—however well done—corrupts the text. St. Jerome was called upon to correct the degenerate “Itala” and he gave us the “Vulgata.” This, about 802 A.D., again required official correction. We can judge of the evil effects of a single transcription from a comparison of the Medicean Ms. of Cicero ad Fam. with the copy ascribed to Petrarch. In the early centuries there were, no doubt, trustworthy and untrustworthy editions of all popular writers. Quintilian, Gellius, Donatus, and the grammarians and commentators mention alternative readings. Even in our own time,—guarded by the printer’s skill,—we choose with care the edition of any popular poet a century or more old.

In that period of the Empire when early poetry again rose into favor, probably the scholars wrangled over the text of Terence somewhat in the manner of modern critics over

Shakespeare. He was one of their favorite poets, and the language had shifted about as much in one case as in the other. For the first two or three centuries after the plays of Terence were written the tendency of scribes and critics was to reduce the language to the standard of the contemporaneous language both in form and style. Then, after a brief reaction toward original purity due to the scholastic influence of the grammarians and to a capricious love for the archaic, that degenerating tendency was again in force. Could we trace the descent of any one Ms. of Terence from the very original down to the present form, we should find that the Ms. had passed through a number of different hands, each one of which had given it a peculiar stamp.

There may have been the painstaking copyist who unwittingly let in a peculiar class of errors; the careless one who multiplied the errors of his kind, misinterpreted abbreviations, left his omissions and repetitions uncorrected rather than spoil the appearance of his page and lessen his pay. Then there was the bold emendator who changed seeming irregularities to his preconceived standard; his range may have been narrow, and he dealt with particular features of forms and syntax, or considering himself a *savant* in metre, he polished the verse with inversions, omissions, insertions, etc. Whatever the hands our Ms. passed through, it bears the marks of its revisers and has an individuality. It is needless to say that the fewer, the more careful and conservative the hands, the less it is vitiated.

It was such a belief in the individuality of Mss. that led me to attempt to find that individuality in the Mss. of Terence which Umpfenbach has made accessible in his critical edition.

In deciding all questions of text that may arise, editors are accustomed to accredit each Ms. or family of Mss. with a certain definite rank or value, and it too often happens that the editor has a favorite — perhaps his own discovery, as in the case of Tischendorf with the Sinaitic Ms. of the N. T. — which leads him blindly into many difficulties.

It is more reasonable for editors to ascertain as nearly as

possible in what particulars each Ms. is valuable, and in what it has been most corrupted, and then give them credit accordingly.

Of the Mss. which Umpfenbach considered worthy of collation, the Bembinus is regarded the "nobilissimus et antiquissimus;" it belongs to the 4th or 5th century, and is written in uncials; throughout the work it is designated by A. Next in importance and in age, as Umpfenbach claims, is the codex Victorianus (D), which belongs to the 9th or 10th century, and which makes the extravagant claim of being written by Terence himself; only in the prologues is there a distinction of verse, though frequently capital letters are found in the middle of sentences. The codex Decurtatus (G), so called from the condition of the Ms., belongs to the 11th or 12th century, and is grouped by Umpfenbach with D. Likewise is Fragmentum Vindobonense (V), which is of the 10th or 11th century. The codex Parisinus (P) is the most important Ms. of the third group; it belongs to the 9th or 10th century and preserves the metre. From the same original as P is copied the Vaticanus (C), which also belongs to the 9th or 10th century; the copy is not made by so good a scholar. The Basilicanus (B) is of the 10th century, and is nothing else than a copy of the Vaticanus, excepting a portion which appears to be taken from the Victorianus. The Ambrosianus (F) is classed with the third group, and belongs to the 10th century; it observes in part the metrical divisions. The last codex of this class is the Riccardianus (E) of the 11th century; it makes no attempt at metrical division.

In order to find the particular excellencies and faults in these Mss. of Terence I have sorted all the variations from the accepted text of Umpfenbach into such natural categories as the omission of verb, noun, personal pronoun, demonstrative pronoun, other kinds of pronouns, and particles; the insertion of particles and other words; the substitution of one word for another, inverted order, changes in case, number, and gender, in tense, mood, number, and person of the verb; changes in rôles, division of verse, corrupt passages, and different spellings, expecting to find that one Ms. would have

the fewest errors in one category and another in another; and therefore that the so-called best Mss. would be shown to have the greatest weight in most categories, but that in some of the categories one or another of the inferior Mss. would equal or excel them. That this has been the result in a general way can be seen from the tables which follow.

TABLE I.

Ms.	Omission of Verbs.	" Particles.	" Pers. Pronouns.	" Dem. Pronouns.	" Other Pronouns.	Total Omission of Pronouns.	Omission of Nouns.	Total Omissions.	Insertion of Particles.	" " Other Words.	Total Insertions.	Substitutions.	Inverted Order.	Corrupt Passages.	Changes of Case.	" Number.	" Gender.	" Tense.	" Mood.	" Number.	" Person.	" Roles.	Different Spellings.
Eunuchus.																							
A	15	12	12	6	4	22	12	61	17	23	40	106	29	39	26	4	8	11	10	2	2	11	45
D	12	17	10	5	5	20	10	59	35	53	88	169	77	39	32	3	6	16	18	4	5	21	68
G	15	27	14	4	1	19	14	75	46	44	90	175	81	76	37	3	7	17	26	2	7	28	72
P	14	16	5	7	3	15	5	50	28	39	67	104	48	5	17	3	3	15	15	4	6	27	61
C	11	15	5	6	5	16	5	47	28	38	66	126	48	25	28	7	4	16	16	3	8	24	62
B	13	15	6	4	3	13	6	47	29	47	76	124	54	18	21	4	6	13	16	3	7	25	70
E	16	24	11	10	5	26	11	77	49	55	104	161	71	37	28	5	5	15	24	4	10	30	76
F	10	20	12	8	3	23	12	65	29	49	78	146	49	27	22	3	0	15	22	3	8	20	79
Adelphoe.																							
A	12	20	6	11	2	19	16	67	14	20	34	100	14	28	28	0	2	6	5	1	4	4	12
D	4	14	6	11	2	19	17	54	24	36	60	160	64	7	26	5	2	18	18	4	6	8	63
G	10	17	8	12	3	23	16	66	21	43	64	169	79	26	39	4	2	19	21	5	8	18	79
P	4	18	3	6	5	14	12	48	15	23	38	112	56	2	25	4	5	14	16	1	3	14	51
C	3	18	3	5	4	12	17	50	14	25	39	129	51	5	29	5	4	14	17	2	6	13	57
B	3	16	2	4	3	9	11	39	15	27	42	135	52	2	26	4	4	16	16	2	4	12	51
E	10	24	7	10	3	20	17	71	19	41	60	154	63	7	28	4	4	15	24	2	5	16	76
F	5	16	3	7	3	13	17	51	20	32	52	130	55	9	29	5	6	13	22	2	5	13	70
Phormio.																							
A	8	26	7	11	2	20	10	64	8	23	31	110	12	31	23	1	1	12	8	3	6	19	45
D	12	40	9	14	2	25	13	90	44	40	84	197	62	28	26	3	3	15	22	4	9	34	72
G	11	33	8	13	3	24	10	78	37	41	78	203	67	27	34	3	1	18	24	4	10	40	87
P	8	23	11	7	0	18	4	53	42	43	85	159	70	8	17	3	8	13	25	1	4	31	78
Andria.																							
D	5	22	5	5	2	12	7	46	30	35	65	115	76	7	11	1	5	7	6	5	2	4	136
G	7	21	7	8	1	16	13	57	28	33	61	111	79	43	15	2	3	5	11	3	2	5	137
P	7	18	5	7	1	13	2	40	15	20	35	67	42	1	9	1	2	4	4	4	2	4	80

That all the Mss. do not show such distinctive characteristics as we might at first thought expect, is largely due to the author. For there are very few Latin writers whose

works have been copied and edited so many times as Terence. But if this has been done for some of the Mss. so many times that they seem to have no particular excellence, this is as desirable to know as the strong and weak features of the others.

The investigation was made with all the Mss. in the Eunu-chus and Adelphoe; and the ground covered in these two plays was considered broad enough upon which to establish their values; but wishing to carry the inquiry further, I continued the study of the leading Mss. A D G P through the Phormio, and D G P through the Andria, A being almost entirely wanting in the latter.

A glance at some of the more important categories indicated in Table I. shows us, that, in case of omissions, the value of the different Mss. is not as Umpfenbach would lead us to expect. P C B, for instance, have the fewest variants, and the number in A is exceeded only by E and G. In the case of insertions, however, A is the most trustworthy, and next in value are P C B, followed in order by F D G E. As errors of omission come into a Ms. from a careless copyist more than those of insertion, we see that the text of A has at some time passed through the hands of such a copyist.

A large and important category is that of the substitution of one word for another. This class could easily have been resolved into others, for in some cases the word is a synonym, in others a slight deviation in the thought; in many instances an entirely different idea is expressed, and in still others the words convey no meaning. A few examples may be cited. Eun. 287 *curset* B C D E G P for *curset*. 166 *ancillam* E for *ancillulam*. 170 *tandem* E for *tamen*. 196 *faxis* A for *fac sis*. 364 *deducam* G D for *ducam*. This, the largest category, shows the character of the Mss. more clearly than any of the others. A has the fewest errors, and P C B next. Then follow in order F E D G.

In the case of inverted order, D and G have again suffered most, and A least. This class of errors comes into the text chiefly through the attempt to improve the metre or where the metre is lost sight of to establish the natural order.

The class of errors given as corrupt passages does not

vitate the Mss. to the extent that the statistics signify, for often the corruption is of such a nature that it is the strongest proof that the scribe had before him a good text. It shows the care with which the manuscript has been treated, and gives us confidence in it to that extent.

In the smaller categories of case, number, gender, tense, mood, etc., the variants are more likely to arise from the efforts of the conscious emendator than from pure carelessness. Some of these categories are too small to place much weight upon the statistics. It should be noticed, however, that in the changes of the noun, P is the best authority, and in the changes of the verb, that A is. E and G have the most variants, and the other Mss. change their relative position in the different classes.

An interesting category is the interchange of rôles. This, in connection with the division into scenes, deserves more attention than has been given it. A study of the particular instances shows the partiality of Umpfenbach for his favorite Mss.

The last category to be mentioned is that of different spelling. It has but little weight in determining the value of the Mss., but, like the corrupt passages, it strengthens or weakens our confidence. In the list given I took notice of such variations as in And. 754: *hahe* G, *ahae* D, *hahahae* B C P, *ahah* E. Again, 76 E *adposuisti* C P (read by Spengel) *apposuisti* B D E G. (The text holding *adposisti* after Ritschl.) But I have omitted many of the commoner variations for which Umpfenbach's collations are not reliable. An estimate of the general value of the Mss. can be reached by observing the sum of their variants in the several plays.

	Eun.	Phorm.	Ad.	And.
A	394	366	305	
D	605	649	495	486
G	696	674	599	434
P	425	555	389	295
C	480		421	
B	484		405	
E	647		529	
F	537		462	

It will be noticed that the numbers are nearly proportional in the different plays; *i.e.* A : D : G, etc., in the Eun. very nearly as A : D : G, etc., in the Ad. and other plays; that in each play A has the fewest variants, and that P, with its closely related Mss., is next and far better than D and G; that F is a good Ms., ranking next to the P family, and that E lies between D and G. Any one who has followed the investigation thus far cannot fail to see that the statistics are different from what we were led to expect from Umpfenbach's account.

It cannot be accidental that the value of the Mss. corresponds so nearly in the different plays. No one would attribute the subordinate positions of D and G to mere chance, and at the same time recognize the unquestionably proper position of A. It must be admitted that the value of a Ms. cannot be expressed with mathematical exactness, and that a Ms. is not necessarily vitiated in proportion to the number of errors; but statistics such as the above give an overpowering probability that Umpfenbach and all other editors of Terence, — excepting Spengel, who constantly follows the P family in preference to D and G, — have underrated P and its allied Mss. C and B.

In comparing the sum of all the variants in the different plays we notice that the numbers run higher in the Phorm. and Eun. than in the Ad. and And. To be sure, the plays are a little longer, but not enough to account for the difference. The reason doubtless lies in the fact that these were the more popular plays, and consequently were more frequently copied and edited. The same method would show that the Hecyra was the least popular, and this is in substantial agreement with what Donatus says of them. This principle holds true in considering the plays of other dramatists. Among the plays of Aristophanes the Plutus exhibits the most variants, and is known to have been the most popular.

Thus far we have been considering the readings of the original Mss., but they all have been more or less altered by later hands. In the Bembinus there can be seen corrections made by the original scribe, by an early corrector, and

by a writer of about the 15th century. In the other Mss. are many changes by a late hand, and occasionally by a second, though I have not attempted to distinguish them. A study of these corrections in the same manner as the original variations, shows that some of the Mss. have been improved and others injured. The corrections of the first writer of A are nearly always accepted. Those of the "manus antiqua" of A, found chiefly in the Eun. (rarely in the And. and Heaut.) generally improve the Ms. The number of alterations of the "corrector recens" varies considerably in the different Mss., and for each play in the same Ms. In the following table will be found the summary of the changes made by the "corrector recens" in the leading Mss.

TABLE II.

	Accepted corrections.				Rejected corrections.				Total.			
	A	D	G	P	A	D	G	P	A	D	G	P
Eunuchus . .	53	69	30	10	51	31	24	8	104	100	54	18
Adelphoe . .	73	70	17	27	52	30	3	18	125	100	20	45
Phormio . .	88	125	20	13	88	69	9	24	176	198	29	37
Andria	55	28	13	..	25	5	3	..	80	33	16
	<u>214</u>	<u>323</u>	<u>95</u>	<u>63</u>	<u>191</u>	<u>155</u>	<u>41</u>	<u>53</u>	<u>405</u>	<u>478</u>	<u>136</u>	<u>116</u>

These corrections were assorted into separate categories, and the result showed that they improved the Mss. in some particulars and not in others; but most of the categories were too small to be of any value.

The greatest number of corrections are found in A and D, and of the plays the Phormio has the most. This corrector has not altered the value of A much, *i.e.* the number of accepted changes is about equal to those rejected. It is in the cases of omission and substitution that he has decidedly improved the Ms., while he was equally unfortunate in the instances of insertion. The corrector of D considerably bettered the Ms., and strangely enough, in the case of omission, nearly every correction agrees with the accepted text, and almost all of the attempts at insertion are wrong. G and P have the fewest corrections. Those in G are nearly always right in the cases of omission and insertion, and more usually

wrong in the other divisions. P is not much affected one way or the other.

After considering the value of the individual Mss., let us now turn to their family relations and see how they have shifted under the hands of the successive investigators. Ritschl (*Opusc.* III, 281. ff.) was the first to attempt a classification of the Mss. which we now have to deal with, and he resolved them into two groups. The superior Ms. in age and authority was A. With a great deal of assurance he placed D in the same family, and thought that possibly G should be grouped with it. Into the second family he brought all the other Mss. which follow the recension of Calliopius.

Wagner followed Ritschl in connecting D with A, and more emphatically added G also. They both regarded D and G as independent of the Calliopian recension. Dziatzko claims the honor of separating A from D G, and establishing the three families which Umpfenbach adheres to in his edition.

It is to Umpfenbach, however, that we usually give the credit; inasmuch as he described particularly the value of the three families. He considers A as separate from the others and forming a class by itself — excelling in authority as much as it precedes in years. The family next in importance, according to Umpfenbach, is D G, in which he finds traces of the Calliopian recension. Still it is much to be preferred to the third class, — more strictly the representative of the Calliopian recension, — because he believed its archetype proceeded out of an edition formed with the help of the commentaries of Servius and Priscian, and according to the commentary of Donatus; and that there were also inserted marginal references taken from a Ms. related to the Bembinus. The other Mss., P B C E F, are also offshoots from the Calliopian recension without being improved from Donatus or any early source. This classification given by Umpfenbach is the one generally followed by recent editors.

The most uncertain elements in the consideration of these

family relations are the age and character of the Calliopian recension. Umpfenbach and those before him regarded the grammarian Calliopius a fairly skilful editor who lived after Donatus — perhaps about the 7th century.

So far as I know, the first one to assign him to an earlier date was Conrad Braun, (*Quaestiones Terentianae*, 1877), who would place his recension at the end of the 3d century or the beginning of the 4th. The same view is reinforced by Frid. Leo in a very suggestive and scholarly article in the *Rhein. Museum*, Vol. XXXVIII, (*Die Ueberlieferungsgeschichte der terenzischen Komödien und der Commentar des Donatus*), in which he attempts to prove that Calliopius belonged to the 3d century. He accepts the classification of Umpfenbach, based on the difference in the order of the plays, the method of distinguishing rôles, and the constitution of the text. From a study of the order of the plays Leo shows — as he thinks conclusively — that Donatus of the 4th century based his commentary on a Ms. from the recension of Calliopius, and that this Ms. belongs to the same class with D G, and therefore the original form of the Calliopian recension is to be sought in D G and not in P C B. The Mss. P C B, by their archetype, represent an edition of the original Calliopian recension which the editor considered not strictly a new edition, but a working over of the old, therefore he retained the name of Calliopius and did not add his own.

This edition must have been made before the time of the decline of the language, for it received many metrical corrections, held the metrical division of verse (which is known to have been early lost for Terence), and from its elegant embellishments gave evidence of a living interest in the poet.

The illustrations in the P family of Mss. are pictures of ancient stage customs, and go back to an early date. They must be later than the time of Terence, since the players wear masks, a custom not introduced until later (*cf.* *Diom.* p. 489, and *Cic. de Or.* III. 221), and not contemplated by Terence, as is seen from *Phorm.* 210 and 890.

The illustrations have parallels in two pictures of Pompeian

house decoration, one of which is taken from a scene in the *Andromache* of Euripides, and resembles the Terentian illustrations in gestures, movement, and technique. Pliny, (H. N. 25, 8), tells us there were illustrated editions of the Greek Drama long before 79 A.D., and there is no reason why the same was not true of the Roman. The editor of the Calliopian recension, who brought out the archetype of the P family, must have taken his illustrations from a very old Ms. He could not have taken them from the Calliopian, for the division into scenes and the headings of the scenes differ very often from his edition, and this would not happen in an illustrated copy. The editor of the archetype also changed the order of plays to that of the ancient illustrated edition.

In short, Calliopius, in his edition, freely prepared a text according to a Ms. related to the Bembinus, but considerably older. This edition Donatus followed in the preparation of his commentary, and is contained in D G. Still, before the decline of the language, there was prepared a new edition of the Calliopian recension, with many text changes, and this was illustrated and arranged according to a Ms. springing from the best period. Thus Leo leaves it. He gives to the P family an excellent descent, — even drawing on a Ms. earlier than all others for its illustrations and order of plays, — and yet never hinting that, when the text differed, it could have taken into it any of the earlier and better readings. He offers no explanation for the many correct readings which the P family retain; more, as we have seen, than the D G family. He does not enter into any consideration of text, but allows that to rest on the authority of Sydow in a dissertation entitled *De fide librorum Terentianorum ea Calliopii recensione ductorum*, Berlin, 1878, which props up the arguments of Umpfenbach in maintaining the superiority of D G over the P family.

Thus the entire article of Leo admirably explains the excellence which we have found to exist in the P family; and if it seems that his argument in places hangs by a slender thread, still it does not depend upon so many presuppositions as the reasoning of Umpfenbach.

With the statistics at hand, it will be an easy matter to find out the strength of these family ties. An investigation made in the Adelphoe shows that A has 206 variations from the accepted text that are peculiar to itself, D 116, G. 217, P 43, C 42, B 17, E 119, F 67; *i.e.* A, which is a class by itself, has 206 peculiar readings, and the other Mss. differ from the Mss. of their families, as well as others, the given number of times. The number of variants that crept into the archetype of all the Mss. — *i.e.* are common to A P C B E F D G — is 41. It is possible, however, that some of these came in later, the different Mss. by chance suffering the same change. The number that came into the archetype of the P and D families is 134; of the P family 65; of the D family 80. E and F, which, we shall see, are not closely bound to the P family, stand alone 14 times.

Thus we see that the greatest change affected the archetype of the P and D families, and was very possibly the work of Calliopius.

The above figures show how many times each group stands apart from all other Mss.; but in many instances each group has one or more of the other Mss. agreeing with it. Therefore D and G are found together (sometimes alone, and sometimes with other Mss.) 275 times, P C B E F 259, P C B 289, two of the P family 342, E F 310, A 277. These figures (and the first list also) show that the P family is more closely bound together, has suffered less from errors creeping into the individual Mss., than D G. E and F frequently break loose from their family, especially E, which is the later and poorer Ms. Thus E D G have 15 variants peculiar to themselves, E D 5, E G 12, E P C B 2, E P 0; F D G have 6, F D 2, F G 2, F P C B 7, F P 10. If we were to judge from these figures alone, we would think that E was more closely related to the D family and F to the P family; but to get at the matter from another point of view, it seems that E comes a little nearer the P family. Thus E D G are found in agreement, either alone or with other Mss., 216 times, E D 228, E G 227, E P C B 263, E P 272. In the same manner F D G are found together 202 times, F D 222, F G 215, F P C B 246,

F P 268. A is found alone with D G in 4 variants, with P C B E F in 1, with P C B in 3, with P in 4, with D in 2, with G in 5, with E F in none. A is found with D G (with or without others) 47 times, with P C B E F 42, with P C B 47, with P 54, with D 50, with G 52; *i.e.* A agrees oftener with the P family than with the D family, and unites with P oftener than either D or G.

In summarizing the chief points of excellence in the two minor families, we find that in age D and P are about equal; that more changes had been made in the archetype of the D family than in the archetype of the P family, and also that more afterwards came into its individual Mss.; that the order of plays in D and G is alphabetical, while in the other family it is for the most part chronological; that D and G distinguish the characters in the plays by Greek letters—a method undoubtedly old, and found in the Bembinus and the Vetus of Plautus. On the other hand the P family represents a very old custom in retaining the illustrations, and in preserving the metre.

We should bear in mind that by adopting Umpfenbach's text as a standard, all the numerical results in this paper are more unfavorable to P and its family than would have been the case, if Umpfenbach had not everywhere preferred the readings of the other Mss.

IV. — *Conditional Sentences in Aischylos.*

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THE object of this paper is a simple one. It is not proposed to theorize upon hypothetical expression in general, or even to advocate special views of the structure of the Greek condition; but merely to give an accurate account of the actual usage of the poet whose writings form the subject-matter of the discussion. It is hoped that the facts collected may be of use in swelling the total of evidence which shall finally settle some of the difficult grammatical questions which are not yet satisfactorily decided.

Professor Goodwin has truly said: "He who imagines that every important principle of Greek and Latin syntax is as well understood and as clearly defined as the rules for addition and multiplication in Arithmetic has not yet begun to learn." In the minute examination of Greek usage which alone can finally establish these principles upon a solid basis, there are few writers of more importance than Aischylos. He wrote in an age when the Attic dialect had not yet crystallized into all the regularity of form which it reached under the influence of his successors. His style resembles that of Pindar in exhibiting, though in a lesser degree, certain transitional forms, and traces of Homeric usage, which disappear still more completely in the Greek of Sophokles and Euripides. It should be stated, however, at the outset, that the usage of Aischylos will be found to conform, with reasonable closeness, to the rules of Attic syntax, as laid down in the standard treatises. As a basis for the discussion the writer has examined all the conditional sentences which are found in the extant plays, as well as those in the fragments included in the Paris edition (Ahrens) of 1877. The text of the plays followed is that of Paley's fourth London edition (1879) unless otherwise stated. The fragments are quoted as numbered in the Paris edition.

As hinted above, Aischylos occupies a middle ground, in the structure of his conditional sentences, between the wealth of variety exhibited by the Homeric poems, and the more sharply defined forms of the later Attic writers; though he stands naturally in much closer connection with the latter class. No scheme of division yet proposed can be made to embrace all the varieties of his usage, but it will be convenient to assume, as a starting-point, the four classes recognized by Professor Gildersleeve,¹ designated respectively by the terms "Logical," "Anticipatory," "Ideal," and "Unreal," as well as the two special forms for expressing a generic supposition, according as the conclusion represents indefinite frequency in present, or in past, time. But besides these sentences with a regular protasis introduced by a word meaning *if*, it has seemed necessary to include in our observation those relative sentences in which the relative pronoun or adverb refers to an indefinite antecedent, since it is agreed that these show the same general structure as pure conditionals. It has also been thought best to add a brief notice of those participles which are plainly conditional in force, as well as an enumeration of the cases of the so-called "potential" optative and "potential" indicative.

I.

A "logical" condition may refer to either past, present, or future time, and is expressed by *ei* with the indicative mood. It conveys no idea of probability or improbability, but merely states that the given conclusion necessarily follows upon the given condition. This form deals with facts rather than with theories or possibilities, so much so that *ei* sometimes seems to lose its conditional force altogether, and to be nearly equivalent to *since*. This use is too familiar to need illustration, and is not uncommon in Aischylos. Its pointed directness of meaning makes it peculiarly appropriate for use in argument, whence this form has derived its name of "logical."

¹ Studies in Pindaric Syntax, p. 1. (Am. J. Phil., Vol. III., No. 12.)

Logical conditions are comparatively very numerous in Aischylos, more than 60 per cent of all his pure conditional sentences belonging to this class. Comparing Aischylos with other writers on this point, we find that in Pindar, according to Professor Gildersleeve, the proportion of logical conditions is still greater, amounting to almost 66 per cent. In more than 100 consecutive conditions counted by the writer in the *Odyssey*, only 41 per cent were logical; while a similar experiment with Sophokles gave a result of 54 per cent, or decidedly less than in Aischylos. We thus see that Aischylos, in this feature of his style, stands much nearer to the matter-of-fact directness of Pindar than to the ease and exuberance of the Homeric diction. Of these logical conditions, 96 in number, 59 have the verb of the protasis in the present tense. The present tense is also by far the most frequent in the apodosis. The imperative, and the optative with *ἄν*, occur frequently in the apodosis, but by no means so often as the present indicative.

The use of the future requires special notice. In 24 of the logical protases, or 25 per cent of the whole, the verb is in the future indicative; and the question naturally arises how these conditions differ in meaning from the anticipatory form expressed by *ἐάν* with the subjunctive. It has been suggested that the difference between the present or aorist subjunctive, in protasis, on the one hand, and the future indicative, on the other hand, must lie in the fact that the latter disregards the distinction between continuous and momentary action which the subjunctive mood allows. From this fact there is deduced the following answer to the question raised above: "The neglect of this distinction, in *εἰ* with the future indicative, shows a certain coldness, a certain indifference; and this, added to the general rigor of the logical condition, which faces fact in all its grimness, gives a stern, minatory, prophetic tone to the future indicative, which commentators and grammarians have noticed, but noticed only in passing, and noticed without attempting to account for it."¹ It will be

¹ "On *εἰ* with the future indicative and *ἐάν* with the subjunctive." (Trans. Am. Phil. Assoc., Vol. VII, 1876, p. 9.)

interesting to examine the cases in which Aischylos uses the logical future, and notice how far the theory just stated is supported by the facts discovered. The writer quoted leaves the fragments out of view altogether, and also does not mention the case, Sept. 98, where a future verb is plainly to be supplied, though a similar case, Sup. 505, is included in his list. This reduces the number of logical futures in his enumeration to 22. Of these, 11 (Sup. 455, 466, 468, 880, 901, Pr. 320, Per. 371, Sept. 183, Ag. 1026, Cho. 562, Eum. 567) are described as minatory in tone. But in several of the cases this meaning is not plainly apparent to the present writer. For example, in Sup. 468 ff. the king says to the Danaids, who ask his protection,

*εἰ δ' αὖθ' ὁμαίμοις παισὶν Αἰγύπτου σέθεν
σταθεῖς πρὸ τεχνέων διὰ μάχης ἤξω τέλους,
πῶς οὐχὶ τάνάλωμα γίγνεται πικρόν;*

In these words he is far from threatening the suppliants. He is merely appealing to their reason to consider the consequences, to himself and his country, if he takes up arms in their behalf. So in Cho. 562, Sup. 901, the threatening idea is by no means prominent (contrast Sup. 880, where it is unmistakable), while even in Ag. 1026, Eum. 567, it is no more prominent than in several cases where *ἐάν* and the subjunctive mood are used, *e.g.* Sup. 606, Pr. 1035, Ag. 1397. This reduces the number of cases which are plainly and strongly minatory to six. Of the 13 remaining logical futures Per. 359 is a warning, and Frag. 283 appears to be a threat, so far as can be ascertained in the absence of a fuller context. In eight cases (Sept. 98, 614, Ag. 200, 1220, 1309, Cho. 174, 265, Eum. 469) the future expresses merely present intention, probability, or necessity. In the other five cases (Sup. 468, 505, Cho. 562, 670, 762), we have nothing but simple future conditions such as could apparently be equally well expressed by *ἐάν* and the subjunctive.

To recapitulate briefly, six cases are plainly minatory, five cases are more or less tinged with the same idea, and 13 cases do not show a trace of it. So far as the usage of Aischylos

is concerned, then, we cannot advance much beyond the rule of Professor Goodwin,¹ who considers the future indicative with *εἰ* as only a way of expressing "more vividly" precisely the same idea conveyed by *ἐάν* with the subjunctive; except in cases where the former may be translated *is to* or *must*. It should be stated, however, that the writer quoted above admits that the induction is not so wide as could be desired, in the case of Aischylos; and also clearly recognizes the meaning *is to* as a common one in these cases. On the other hand, it need not be disputed that the greater vagueness of the future indicative, in point of duration, may make it peculiarly appropriate for solemn warning and threat. We will only add, if an Homeric instance may be cited, that in the familiar passage, A 135 ff., the first, or favorable, alternative is expressed by *εἰ* with the future indicative, *εἰ δώσουσι*, while the second alternative, accompanied by the threat, is *εἰ δέ κε μὴ δώσωσιν*, or precisely contrary to what we should expect. But we are at present concerned only with what can be learned from the usage of Aischylos.

The logical condition in Aischylos almost always refers to a particular occurrence, only two cases, Ag. 1299 (?) and Cho. 743, being plainly generic.

We subjoin a list of logical conditions, arranged according to the tense of the protasis:—

1. Protasis *εἰ* with pres. ind.—Sup. 56, 72, 182, 361, 381, 758, 937 (to be supplied), Pr. 204, 351, 353, 625, 701, 782, 784 (to be supplied), 835 (to be supplied), 838, 854, 999 (to be supplied), 1009, Per. 297, 633, 796, 799, Sept. 442, Ag. 155, 161, 329, 654, 659, 816, 917, 1017, 1027, 1055, 1210, 1267, 1279 (to be supplied), 1299 (text doubtful; see anticipatory conditions), 1311, 1374, 1639, Cho. 97, 195, 215 (to be supplied), 290 (2 perf. = pres.), 490, 513, 561, 643, 655, 659, 743, Eum. 31 (to be supplied), 210, 282, 417, 448, 845, 847. (59)

2. Protasis *εἰ* with fut. ind.—Sup. 455, 466, 468, 505 (to be supplied), 880, 901, Pr. 320, Per. 359, 371 (opt. by ind. disc.), Sept. 98 (to be supplied), 183, 614, Ag. 200, 1026, 1220, 1309, Cho. 174, 265, 562, 670, 762, Eum. 469, 567, Frag. 283. (24)

¹ Moods and Tenses, pp. 93, 103.

3. Protasis *εἰ* with perf. ind. — Sup. 993, Pr. 840, Per. 160, Ag. 29. (4)
4. Protasis *εἰ* with imp. ind. — Sup. 338, Ag. 839, Cho. 534. (3)
5. Protasis *εἰ* with aor. ind. — Per. 219, Ag. 503 (to be supplied), 907 (to be supplied), 1108 (to be supplied), Eum. 259. (5)
6. Protasis *εἰ* with plup. ind. — Cho. 190. (1)

II.

Professor Gildersleeve, following Bäumlein,¹ divides the “anticipatory” conditionals into particular and general. In the present discussion, however, the generic conditions will be considered as a class by themselves, as the different forms of their apodoses would certainly justify us in doing. In the anticipatory condition the protasis is in the subjunctive mood, usually with *ἐάν*, but sometimes, as we shall see, with *εἰ*. The apodosis may be of a variety of forms, all of which are future in meaning. The most common of these are the future indicative and the imperative. The only idea which can be said to be invariably expressed by this form is that of futurity. This class of conditions is by no means of frequent occurrence in Aischylos, including only nine per cent of the total number. With these cases, 15 in number, may conveniently be classed the three instances (Sup. 144, Cho. 297, 475) of *εἰ δὲ μῆ* in protasis, with verb omitted, as the apodosis in each of these cases is a future. The present subjunctive occurs with about the same frequency as the aorist, in protasis, while in apodosis the future indicative outnumbers all other forms together. It is worth noticing that the same severe and threatening tone which has been referred to as ascribed to the future indicative, in protasis, may be detected in many of these cases also. In Sup. 606, Pr. 685, 1035, Sept. 1030, Ag. 1397, and in all the cases of *εἰ δὲ μῆ*, it is plainly discernible. These five cases may be taken as an additional evidence that it would not be safe, so far as Aischylos is concerned, to regard that tone as belonging especially to the logical future. The cases of *εἰ δὲ μῆ* do not bear upon this point in either

¹ Untersuchungen über die griechische Modi, p. 208.

direction, as the verb of the protasis is not expressed at all; these words, as is often remarked, having developed into a mere formula for the alternative, until the writer who used them became unconscious what verb should be supplied. Its apodosis is in Aischylos always the future indicative.

Side by side with the 10 cases of what may be called the regular form of the anticipatory condition we find five other cases (Sup. 86, 394, Per. 787, Ag. 1299, Eum. 225) where the verb is still in the subjunctive, but where the conjunction which introduces it is a simple *εἰ* in place of *εἰάν*. This is so rare a construction in Attic Greek as to call for special attention. On these five cases alone it would be difficult to build any safe theory regarding the intention which our poet may have had in the use of this form of protasis. But there are also several instances (Sup. 116, Sept. 328, 816, Ag. 740, Eum. 202, 322, 631) of the analogous use of a relative pronoun or adverb without *άν* introducing the subjunctive; and by combining these two classes in our observation it may be possible to approach a generalization. It is well known that this use of *εἰ* with the subjunctive is of very ancient date in Greek literature, and that it gradually disappeared in the later writers. In the Homeric poems the subjunctive is introduced by *εἰ* much oftener than by *εἰ κεν* or *εἰ άν*, and it is important to remember that the former is invariably preferred in general conditions.¹ Pindar uses only *εἰ* with the conditional subjunctive, and always in the generic sense.² The construction is also occasionally found in Sophokles, where the generic signification seems to be less common. In O. K. 1442, for example, the meaning is specific, but in O. T. 1230 it is generic. In Attic prose this construction is exceedingly rare. If now we examine carefully each case occurring in Aischylos, we find that in nine (Sup. 86, 116, Sept. 328, Ag. 740, 1299, Eum. 202, 225, 320, 631) the condition is certainly generic, while in two of the other three (Sup. 394, Pers. 786), the generic idea is by no means out of the question, but can easily be conceived of as present in the poet's mind. We

¹ Seymour, *Introd. to Lang. and Verse of Homer*, p. 25.

² Gildersleeve, *Studies in Pindaric Syntax*, p. 8. (*Am. J. Phil.*, Vol. III., No. 12.)

may conclude, then, with reasonable certainty, that when Aischylos used $\epsilon\acute{\iota}$ with the subjunctive, or a relative word without $\alpha\upsilon$ with the same mood, he was under the influence of Homeric usage, and felt that this construction was peculiarly appropriate to the expression of a generic, in distinction from a particular, condition.

The list of anticipatory conditions is as follows :—

1. Protasis $\epsilon\alpha\upsilon$ with pres. subj. — Pr. 334, 685 (changed to $\epsilon\acute{\iota}$ with opt. by ind. disc.), Sept. 1030, Ag. 1397, 1645, Sup. 606. (6)
2. Protasis $\epsilon\alpha\upsilon$ with aor. subj. — Pr. 1035, Per. 531, Sept. 231, Cho. 984 (text doubtful). (4)
3. Protasis $\epsilon\acute{\iota}$ with pres. subj. — Per. 787, Ag. 1299 (text doubtful). (2)
4. Protasis $\epsilon\acute{\iota}$ with aor. subj. — Sup. 86, 394, Eum. 225. (3)
5. $\epsilon\acute{\iota}$ $\delta\epsilon$ $\mu\eta$ — Sup. 144, Cho. 297, 475. (3)

III.

The "ideal" condition is expressed by $\epsilon\acute{\iota}$ with the optative. Its apodosis may be of a variety of forms, but the favorite conclusion, both in Aischylos and in the other Attic writers is the optative with $\alpha\upsilon$. - Aischylos uses ideal conditions with considerable frequency, the cases numbering 30, or 19 per cent of his pure conditional sentences. Of these, 16 show the present optative. The ordinary form of the apodosis occurs 19 times. As is well known there is a difference of opinion among grammarians as to the exact relation in meaning between this form of sentence and the anticipatory subjunctive with $\epsilon\acute{\alpha}\nu$. Both kinds of condition refer to future time, and Professor Goodwin argues that the only difference between them is that the subjunctive brings the contingency "more vividly" before the mind than the optative, and that, beyond this, they could be used interchangeably. This view was opposed by many scholars, among others by the late Professor Morris,¹ who held to the view that the optative implies a less degree of probability than the subjunctive. It has been felt that the optative is the "condition of fancy,"

¹ Trans. Am. Phil. Assoc., Vol. VI., 1875.

that "there is often an element of wish, for or against, of hope or fear," even by those who admit that the difference in respect to probability and practicability is more or less foreign. Examining the usage of Aischylos on this point, we notice to begin with that he never uses the anticipatory condition to express an impossibility, or even a striking improbability. Every case of the subjunctive with *ἐάν* points to a possibility which is by no means unlikely to be realized. After mentioning this, by way of preface, let us examine the significance of the ideal conditions somewhat more minutely. We find that in 10 cases (Sup. 734, Per. 236, 528, Sept. 4, 389, 545, Ag. 37, 338, 903, 1637), there is a strongly implied wish that the condition may be fulfilled. In six cases, on the other hand (Sup. 680, 710, Pr. 1000, Sept. 5, Ag. 336, 756), the wish is just as plainly opposed to the fulfilment. We have then 16 cases, or about one-half of the whole, in which the idea is conspicuous of a fulfilment being either desired or dreaded. We may add that Sup. 902 is strongly threatening in tone. If now we attempt a rough classification of the 13 remaining cases, we find that in three the realization may be regarded as probable, in two as improbable, while in the rest no leaning in either direction can be detected. In short, the attempt to develop a rule for the signification of this form of condition, from the usage of Aischylos, may be said to end in failure. We can find safe ground only by retiring to our former position, and resting content with the assertion that the ideal condition in Aischylos is future in time, and conveys no assumption either for or against its realization. As far as our author, at least, is concerned, we must follow the conservative statement of Krüger,¹ that in this form "der redende will über die bedingung und ihre folge seine subjective ungewissheit ausdrücken." It should, perhaps, be added that the statement above does not include those cases of the optative with *εἰ* which express indefinite frequency in past time. The few examples of this kind are noticed below, when the general conditions are touched upon.

¹ Griechische Sprachlehre, 54. 11.

The list of ideal conditions is as follows :—

1. Protasis *εἰ* with pres. opt. — Sup. 710, 734, Pr. 449 (to be supplied), 1000, Per. 431, 528, 786, Sept. 680, Ag. 538, 546, 903, 1009, 1016, 1365, Eum. 398, Frag. 338. (16)
2. Prot. *εἰ* with aor. opt. — Sup. 902, 918, Per. 236 (to be supplied), Sept. 4, 5, 398 (*bis*), 545, Ag. 37, 336, 338, 856, 1637, Eum. 445 (ind. disc.). (14)

IV.

The “unreal” condition is expressed by *εἰ* with a secondary tense of the indicative. Its conclusion is commonly in one of the same tenses with *ἄν*. It carries with it the assumption that the condition is, or was, unfulfilled. This is a rare form in Aischylos, only 11 cases being found in his extant works. In seven cases the protasis is in the imperfect tense, in three in the aorist, and in one in the pluperfect. Of the protases in the imperfect tense the opposing reality is present in the case of three, while in the four remaining it is an enduring or repeated fact in the past. In the case of the four aorist protases it is always a past reality which is suggested; while in Ag. 842, the only pluperfect protasis, *εἰ δ' ἦν τεθνηκώς*, it is the completed perfect *τέθνηκε*. In Sup. 241 we have an example of the omission of *ἄν* in an apodosis of this form. This usage is a common one in most of the Attic writers and requires no special remark. In Ag. 908,

τί δ' ἄν δοκεῖ σοι Πρίαμος εἰ τὰδ' ἤνυσεν,

the apodosis is not fully expressed, but we may supply without hesitation the infinitive *δρᾶσαι ἄν*. We leave this form of condition without further comment, as the few cases which can be recorded prevent no questions of special interest or difficulty.

The list is as follows :—

1. Protasis *εἰ* with imp. ind. — Sup. 241, 284, Sept. 659, Ag. 839, 993, 1172, 1366. (7)
2. Protasis *εἰ* with aor. ind. — Sept. 1019, Ag. 908, 909 (supplied from preceding). (3)
3. Protasis *εἰ* with plup. ind. — Ag. 842. (1)

V.

Of the pure conditional sentences in Aischylos only seven are certainly generic. A condition may be said to be certainly generic when it plainly refers to any one of a class, or series, of possibilities, and when its apodosis is in one of the tenses of repeated action. In the ordinary Attic of Xenophon and Plato the protasis of a present general condition is expressed by the subjunctive with *εἰάν*, the past general protasis by the optative with *εἰ*. But it is soon perceived, on an inspection of the general conditions of Aischylos, that he uses the simple *εἰ* more frequently than *εἰάν*, even in present general conditions. These three cases (Sup. 86, Ag. 1299, Eum. 225) of *εἰ* with the subjunctive have already been discussed under the anticipatory subjunctive. In Ag. 1299 the text is doubtful, but the analogy of the other cases, as well as its close resemblance to the Ms. reading, leads us to prefer the subjunctive. The one certain case of a generic condition expressed by the indicative, Cho. 743, was included also in the list of logical conditions. The two cases of *εἰάν* (*ἦν*) with the subjunctive are perfectly clear, and need no discussion, and the same may be said of the single example of the optative, Pr. 486. It should be added, in view of the small number of generic conditions quoted, that Aischylos is much fonder of the hypothetical relative sentence, in expressing general ideas, than of the pure conditional form, as will appear when the relative conditionals are discussed.

The list is as follows:—

1. Protasis *εἰάν* with subj. — Pr. 387, Per. 704. (2)
2. Protasis *εἰ* with opt. — Pr. 486. (1)
3. Protasis *εἰ* with subj. — Sup. 86, Ag. 1299 (text doubtful), Eum. 225. (3)
4. Protasis *εἰ* with indic. — Cho. 743. (1)

We have now finished our survey of the pure conditional sentences in Aischylos. It remains for us only to glance at

two or three other forms of hypothetical expression, more or less closely connected, in form as in thought, with those which have already been spoken of.

VI.

We notice first the hypothetical relative sentences. In these the relative word, be it pronoun or adverb, refers to an indefinite antecedent, and this gives the sentence the contingent character of a condition. In their different forms these sentences correspond closely to most of the different kinds of protasis which have been enumerated above, though in Aischylos the anticipatory and generic far outnumber the other varieties. The anticipatory relative sentence is very frequent, no less than 34 cases being found. The generic relative conditions are next in frequency, numbering 24. Besides these there is one case (Sup. 1031) of the logical form; while the other forms are entirely unrepresented in our poet. Very few of these require any special comment. The seven cases of a relative without *ἄν*, introducing the subjunctive, have been discussed above, under the head of anticipatory conditions, where it was seen that Aischylos uses this mode of expression somewhat freely, and with a strong tendency toward the generic meaning. In Per. 452,

*ὅπως ὅταν νεῶν
φθαρέντες ἐχθροὶ νῆσον ἐκσωζοίαιτο,*

we have one of the rare cases of *ἄν* with a relative retained when the verb is changed from the subjunctive to the optative by the principles of indirect discourse. Although this phenomenon is not altogether unknown in other writers, and is even found in Attic prose (Paley cites Soph. Trach. 164, 687, and Dem. Mid. 518. 11), yet it is so rare that Elmsley and Dindorf, and some others, adopt the desperate expedient of reading, for *ὅταν νεῶν, ὅτ' ἐκ νεῶν*. This seems to be a violent measure for preserving grammatical regularity, as there is no reasonable ground for doubting the authenticity of the text. Professor Gildersleeve acutely suggests that

ei with the subjunctive was the normal form for the generic condition, and that this explains the apparent anomaly of the dropping of *âv* in the change from direct to indirect discourse. He adds,¹ "The occasional emergence of *éâv*, *ôταν*, and the like, with the optative, may be due in part to a rebellion against a misunderstood tradition." The meaning of the passage, at any rate, is clear. In Ag. 360 ff. *âv* is dropped according to the general rule.

We add the usual list :—

a. Logical.

1. Protasis relative with ind. — Sup. 1031. (1)

b. Anticipatory.

2. Protasis relative and *âv* with subj. — Sup. 429, Pr. 172, 182, 197, 266, 384, 716, 738, 775, 809, 811, 829, 1012, 1048, Per. 176, 232, 366, Sept. 697, 732, 733, Ag. 947, 1289, 1318, 1410, Cho. 730, 811, 953, Eum. 324, 428, 526, Frag. 323, 341. (32)

3. Protasis relative with subj. — Sept. 816. (1)

4. Protasis relative and *âv* with opt. — Per. 452 (changed from subj. by ind. disc. (1)

c. General.

5. Protasis relative and *âv* with subj. — Pr. 35, 601, 603, 738, Ag. 7, 12, 16, 621, 943, Cho. 407, 767, Eum. 33, 335, 617. (14)

6. Protasis relative with subj. — Sup. 116, Sept. 328, Ag. 740, Eum. 202, 322, 631. (6)

7. Protasis relative with opt. — Ag. 363 (changed from subj. by ind. disc.), 549, Eum. 588, 696. (4)

VII.

Conditional participles are frequent in Aischylos, the present and aorist appearing in about equal numbers. This use of the participle is too familiar to need illustration, though it is, of course, often difficult to decide, in case of a given participle, whether it has a conditional force or not. Drawing the line as carefully as possible we find in Aischylos 44 conditional participles, of which 24 are present and 20 are aorist. The optative with *âv* is by far the most frequent form of

¹ Studies in Pindaric Syntax, p. 9. (Am. J. Phil., Vol. III., No. 12.)

apodosis, occurring oftener than all the others together. As the normal protasis for such an apodosis is the optative with $\epsilon\iota$, we may say that Aischylos, in his use of the conditional participle, prefers to make it equivalent to an ideal condition. Although a thorough examination has not been made, it is believed that the same statement is true of Xenophon and Plato. It will be noticed that this fact is in perfect accord with what we should expect. The difference in meaning between a protasis expressed by a participle and the formal condition with $\epsilon\iota$ or $\epsilon\acute{\alpha}\nu$ is that the former merely suggests the hypothetical character of the statement; while the latter states it distinctly. It is the greater vagueness of the participle as a protasis which makes the ideal form of apodosis most natural in connection with it.

The conditional participles noted are as follows:—

1. Present participles.—Sup. 207, 223, 399, 582, Pr. 330, 502, 512, 1006, Sept. 182, 557, 668, 716, Ag. 939, 1203, Cho. 332, 410, Eum. 497, 520, 648, 670, 742, 946, Frag. 177, 338. (24)

2. Aorist participles.—Sup. 151, 222, 285, 480, Pr. 777, 789, Per. 214, 215, 216, Sept. 598, Ag. 264, 526, 937, Cho. 250, 308, 511, Eum. 447, 455, 689, Frag. 338. (20)

VIII.

We notice, finally, the very familiar construction known as the "potential optative." According to the common theory, its history is easy to trace. Originally it was merely an apodosis of an ideal condition, with an omitted protasis easy to supply. An example in Per. 235 f. This case is not yet a potential optative, but merely an incomplete conditional sentence. But from such a sentence the transition is easy to one in which the protasis is general, indefinite, or vague; and finally to that in which the conditional idea almost disappears, and the optative practically becomes a way of expressing a tempered and modified futurity. A case of the vague protasis is Sup. 277; while in Sup. 392 f. the optative is only a softened future. A still farther development of this form of expression is seen in such cases as Sup. 75 f.

ἕβριν δ' ἐτοίμως στυγόντες
πέλοιτ' ἂν ἔνδικοι γάμοις,

'Promptly loathing outrage, be just to our marriage,' where the optative expresses a prayer, or mild command. This use of the potential optative, which is frequent in Aischylos (there are 14 cases of it), may be explained by an ellipsis of such a phrase as "if you act justly," or a similar expression. Including all the different uses, we find 125 cases of the potential optative in Aischylos. This embraces all optatives with ἂν (and a few, to be noticed below, where ἂν is omitted), for which no protasis is expressed, or can be directly supplied from the context. The cases in which such an implied protasis exists are classed as incomplete ideal conditions. Of these 125, 74 are aorist and 51 are present. The number of cases where ἂν is omitted is eight (Pr. 300, Ag. 535, 603, 1016, 1133, 1347, Cho. 164, 585). Three of these (Pr. 300, Ag. 603, Cho. 164) occur after a negative expression such as οὐκ ἔστιν ὅτι (Pr. 300), a construction which is sufficiently common to be noticed by the makers of our grammars. In Ag. 1347 and Cho. 585, the optative occurs in questions which are nearly equivalent to negative assertions. In the three remaining cases there is no such negative idea, or question; so that the dictum of Professor Goodwin,¹ that in the Attic poets this usage occurs "chiefly in questions, and after such expressions as οὐκ ἔσθ' ὅπως," is fairly in harmony with what we can learn of the practice of Aischylos. Here, as in other cases, we find that forms of expression are not so thoroughly matured and differentiated in the style of Aischylos as in that of Sophokles and the contemporary Attic writers.

With the potential optative we may conveniently group the 10 so-called "potential" indicatives. This is a construction which bears the same relation to the unreal conditional sentence as the potential optative to the ideal condition. It is an unreal condition with its protasis omitted, which can, however, usually be inferred with more or less certainty

¹ Moods and Tenses, p. 106.

from the context, *e.g.* Cho. 696, Pr. 773. These cases need no farther comment.

We close with the list of potential optatives and indicatives.

a. Ordinary potential optatives.

1. Present. — Sup. 181, 204, 331, 362, 503, 585, 636, 764, 767, 905, 1039, 1040, Pr. 771, 935, 954, Per. 245, 785, Sept. 370, 467, 564, 701, Ag. 254, 310, 314, 717, 811, 869, 906 (changed to inf. by ind. disc.), 1016 (without *āv*), 1556, 1643, Cho. 475, 509, 585 (without *āv*), 982 (changed to inf. by ind. disc.), 991, Eum. 219, 412, Frag. 295. (39)

2. Aorist. — Sup. 20, 211, 277, 323, 393, 438, 442, 707, 751, Pr. 63, 404, 511, 526, 528, 635, 925, 927, 955, 988, Per. 267, 440, 702, 782, Sept. 392, 397, 464, 515, 704, 904, 1069, Ag. 243, 266, 271, 535 (without *āv*), 605, 989, 1099, 1133 (without *āv*), 1170, 1299, 1347 (without *āv*), 1425, 1485, 1542, Cho. 254, 386, 401, 456, 557, 695, 764, 783, 827, 832, 839, 987, 988, 1039, 1051, Eum. 203, 274, 290, 407, 490, 554, 615, 633, 636, 819. (69)

b. Potential optatives expressing mild command.

3. Present. — Sup. 76, 318, 450, 494, Sept. 250, 710, Cho. 100, 159, 504, Eum. 94, 117, 651. (12)

4. Aorist. — Pr. 634, Eum. 980. (2)

c. Optative after negative expressions.

5. Pr. 300, Ag. 603, Cho. 164. (3)

d. Potential indicatives.

6. Sup. 581, Pr. 252, 773, 1004, Per. 340 (changed to inf. by ind. disc.), Ag. 906, 992, 1223, Cho. 688, 696. (10)

V. — *The Arcado-Cyprian Dialect.*

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RECENT investigations in the field of Greek dialectology have chosen to restrict the term "Aeolic" to the dialect of Lesbos and of the adjacent mainland. Formerly "Aeolic" referred with more or less fluctuating usage to Lesbian, Thessalian, Boeotian, Elean, Arcadian, and Cyprian. This delimitation of "Aeolic" is the result of that revolution in the study of the Hellenic dialects which has broken definitely with the old-time division of Strabo, a division which now finds its sole support in the authority of the name of Curtius. (See Windisch, *Georg Curtius, eine Charakteristik*, p. 13; Curtius, *Kleine Schriften*, II, 150-163.) In place of the ancient and revered, quadrilateral division, there has now been substituted that into $\bar{\alpha}$ and η dialects.¹ The cause of the adoption of a new terminology is at once apparent if we consider that Strabo's "Aeolic" is made to comprise each and every peculiarity of speech that is not Doric or Ionic-Attic.

In the paper published in the *American Journal of Philology*, 1887, Vol. VII, 421-445, I attempted an examination of the interrelations of the dialects of Thessaly, Boeotia, Lesbos and Elis, and sought to portray their connection with the North Greek of Locris and Phocis. It is the purpose of the present article to submit to a preliminary examination the last member of the so-called Aeolic group — the Arcadian dialect — in the hope of defining its interrelations with other Hellenic dialects with greater precision than has hitherto been done. The material here collected is designed to serve as the basis of a discussion of the question in a volume on the Greek dialects now in preparation.

¹ Cf., for example, Pezzi, *La Grecità non ionica nelle iscrizioni più antiche* in the *Memorie della Reale Accademia delle Scienze di Torino*, 1883, pp. 251, 252.

As any examination of the morphological and syntactical features of Arcadian cannot be complete without reference to those of allied dialects, it is imperative in the first instance to draw within our horizon that dialect with which Arcadian is in keepest sympathy. It has therefore been my aim to examine every word-form in the inscriptions (as also many of the Hesychian glosses) in the light of the agreement or difference of Arcadian and Cyprian; to offer new or modified explanations of individual forms when this seemed necessary; and to illustrate the phenomena of dialect life in Arcadia and in Cyprus by constant reference to similar or divergent phenomena in all the other Hellenic dialects. It is singular that so important a period of the life of the Greek language as the Arcado-Cyprian dialect has never been reconstructed in its entirety so far as the paucity of materials at our command permits any such reconstruction. If attained, it presents a wide outlook over the early history and configuration of the dialects.

The dialect of Arcadia was discussed for the first time in a separate paper by Gelbke in the second volume of Curtius' Studien (1869). This treatise is not thorough, and its explanation of points of detail, is, as a rule, antiquated. In the tenth volume of the Studien (1878), Schrader undertook to separate the "Aeolic" from the Doric features of Arcadian. The course of the following investigation will show that Schrader's manipulation of material is not happy; and his paper does not deserve the praise bestowed upon it by Wilkens in his discussion of the Greek dialects in the ninth edition of the Encyclopaedia Britannica. Finally Spitzer, Lautlehre des Arkadischen (1883), has offered a most valuable contribution to the subject by submitting to an elaborate investigation certain portions of the morphology of the dialect. It is to be regretted that this treatise, though disfigured here and there by incautious conjectures, did not extend its horizon so as to embrace an examination of all the phenomena which go to make up the Arcadian dialect.

As to Cyprian, I have had to base my results upon my own studies of the inscriptions of Deecke's *corpus* in Collitz's

Sammlung, Vol. I, and of those that have since come to light,¹ so far as they have come to my knowledge. Rothe has submitted to a partial examination the vowel relations of the Hesychian glosses (*Quaestiones de Cypriorum dialecto et vetere et recentiore*, Part I, 1875). Both this treatise and that by Beaudouin (*Étude du dialecte Chypriote moderne et médiéval*, 1884) leave much to be desired. In the *American Journal of Philology*, Vol. VIII, 467-471, I have made a list of words generally regarded as poetical, but found in Cyprian prose. Greek dialectologists cannot fail to welcome so indispensable an auxiliary to their investigations as the promised grammar of Cyprian forms by Dr. I. H. Hall. That part of Meister's second volume which deals with Arcadian and Cyprian, though printed has not appeared. While the present sketch of Cyprian chiefly deals with but one source of information concerning the dialect, — the epigraphic material, — it is hoped that it may serve not merely as a comparison between Arcadian and Cyprian, but also as a preliminary summary of the grammar of the latter dialect.

My plan in detail embraces an attempt at establishing the character of the Arcado-Cyprian dialect, *i.e.* of Arcadian before Cyprian attained to the dignity of individual existence. This is undertaken in two ways: (1) By tracing all those points of agreement which are the exclusive property of Arcado-Cyprian. (2) By collecting all those instances of phonetic and inflectional resemblance which are the joint property of both Arcadian and Cyprian and of other Hellenic dialects.

It is apparent that the first category is of incomparably greater importance in determining the character of the primitive Arcado-Cyprian. It is no new observation in Greek dialectology that phenomena which are exclusively confined to one dialect are extremely rare. Their very rarity enhances their value. The singular sympathy of the Hellenic

¹ Pamphylian forms have occasionally been drawn into discussion when they seem in close touch with Cyprian. But cases of agreement between Arcadian and Pamphylian alone have been left unnoticed, *e.g.* Ἐχίας, Pamph. *Ἐχέρω*. A Boeotian *Ἐχίας* does not exist.

dialects with each other, despite the configuration of Hellas, voices itself in the fact that one dialect is differentiated from another by displaying merely more or less allegiance to another dialect, be it that of a neighboring or even of a distant speech-centre. Qualitative distinctions here often resolve themselves upon nearer view into quantitative differences. In discussing the instances of joint similarity, I have endeavored to distinguish, as far as possible, the age of the phonetic change in question, since chronological distinctions, oftentimes overlooked in dialect investigations, are of an importance that can scarcely be exaggerated. Those phonetic changes that occur in a period of declining dialect vigor are manifestly of little importance for the establishing of a pre-historic dialect. For example, to the overreaching character of the \hat{A} declension, the $-\epsilon\varsigma$ declension has yielded, after a stubborn resistance, many of its most characteristic forms.

Then as to the points of divergence, which are oftentimes as powerful factors in determining the position of a dialect as the points of contact. It has been my aim to register each case in which Cyprian has followed a different phonetic path from Arcadian; and when Cyprian — or, *vice versa*, Arcadian — does not offer as yet an example of the phenomenon in question, care has been taken to allude to this fact to prevent the possibility of erroneous conclusions being drawn from the unjust application of the argument from silence.

Besides the necessity of noting whenever Arcadian or Cyprian corresponds with Doric or Ionic, or with both, it was imperative to discover in the dialects of the "Aeolic" type (*i.e.* Lesbian, Thessalian, Boeotian, Elean) their points of agreement with Arcadian or with Cyprian. Hence I have arranged the Arcadisms not found in Cyprus under the following heads: *Arcadian and Aeolic*, *Arcadian and Thessalian*, *Arcadian and Boeotian*, etc.; and wherever two or more of these dialects are in agreement I have essayed, as far as was in my power, to bring them into line. The same course has been held with Cyprian, that it might be brought into the clearest focus.

Phonetic changes common, for example, to Arcadian and

Boeotian, and which reappear in Doric alone, are placed almost invariably under the head of *Arcadian and Boeotian*, from a pardonable desire to throw the strongest light upon the points of contact between Arcadian and all the dialects tinged with "Aeolism." But by this convenient principle of division it is hoped no prejudice will be excited against the possibility that the form in question is not Doric in character. It is not my purpose, nor is it in my power, to answer all the vexatious questions that start up from every side, the deeper one penetrates into the many-colored phenomena of the dialect life of Hellas. But when it seems tolerably clear that we have to deal with a loan form (though I am by no means certain that I have always made a decision which is satisfactory even to myself), I have preferred to group this class under a special head. Though for my immediate purpose the most coherent principle of division seems to be that of the various dialects of the "Aeolic" type in their connection with Arcadian or with Cyprian, I am conscious that this point of departure, rather than that of phonetic changes, has brought with it a certain incoherence, for which the index may be at least a partial remedy.

The points of agreement and difference between Arcadian, Cyprian, and other dialects having been exhausted, I have given a list of the chief specific peculiarities of the two dialects under discussion.

The tie which bound metropolis and colony is nowhere more strikingly indicated than in the domain of language. Thus, for example, we have *τόυς τάνυς* in Argos and in Crete, the infinitive ending *-μειν*, possibly a contamination of *-μειν* with *-ειν*, in Rhodes, Agrigentum, and Gela. And in fact throughout the entire history of Greek colonization the colony clung with an affection to the language of its source which ever awakens the sympathies of the philologist — Sparta and Heraclea, Thera and Cyrene, Megara and Byzantium, Corinth and Corcyra, etc.

Without any express testimony on the subject, we might with safety conclude upon an examination of the epigraphic material that Cyprian stood in nearest touch with the parent

Arcadian. But in this case the evidence of language is unequivocally supported by the testimony of antiquity. The Arcadian descent of the original Greek settlers of Cyprus is asserted by Paus. VIII. 5, 2: Ἀγαπήνωρ δὲ ὁ Ἀγκαίου ἐς Τροίαν ἠγήσατο Ἀρκάσιν. Ἰλίου δὲ ἄλωσης . . . χειμῶν Ἀγαπήνορα καὶ τὸ Ἀρκάδων ναυτικὸν κατήνεγκεν ἐς Κύπρον καὶ Πάφου τε Ἀγαπήνωρ ἐγένετο οἰκιστής. Cf. also Herodotus VII, 90, Strabo XIV, p. 684, and the conjecture given below on page 124.

The connection between Arcadian and Cyprian is perhaps closer than that between any other dialects of Hellas, that have at the same time such varied points of divergence. If we consider the very early date of the settlement of Cyprus by Arcadians, the long years of total separation afterwards, we cannot fail to account the close touch between Arcadian and Cyprian a most remarkable fact. The settlement was made in all probability before the Arcadian settlers in Cyprus had made to any great degree practical use of the Greek alphabet. It seems scarcely credible that a Greek alphabet of any developed character, and in constant use, should have been completely displaced by the Cyprian syllabary, though commercial intercourse with the Phoenicians was frequent from at least 1100 B.C. Yet it cannot be too distinctly asserted that writing became known to the early Peloponnesians through the intermediation of the Achaeans and Ionians, and that it was known in the Homeric age even if it is not alluded to in the Iliad and Odyssey. This is clear from the character of the alphabet in Thera, Melos, and Crete, as well as in Lycia and Phrygia. The suppression of a Greek alphabet in Cyprus is a fact noteworthy for its very isolation. See Wilamowitz, *Hom. Untersuch.*, p. 290.

SPECIFIC PECULIARITIES OF ARCADO-CYPRIAN.

The following points of contact date from the Arcado-Cyprian period, and are shared in by no other Hellenic dialect.

1. *-av* in the genitive sing. masculine \hat{A} declension. *Arcadian*: Ἀγαθίαν, 1231, B 38; Ἀλεξιάδαν, 1231, B 25; Γοργυπιδίαν, 1231,

B 37; ἔργωνίαν, 1222₄₂; ριστίαν, 1203₁₈; Καλλίαν, 1231, B 19; cf. C 49; Φιλλίαν, 1189, A 75; Φιλλίαν, 1231, B 17; and in thirty-two other words in Collitz's *Dialekt-Inschriften Sammlung* (C D I), with seven cases of *-av*, the former part of the word having been lost. *Cyprian*: Ἀρισταγόραν, 28; Ἀριστίαν, 20; Ἀτίταν or Ἀτί(ν)ταν, 25; Θεμίαν, 66; Ἰαρώ(ν)δαν, 118; Μαράκαν, 29; Νασιώταν, 21; Ὀνασαγόραν, 60_{1,2,22}; Στασίαν, 17; for Ταμιγόραν, Hall, *Rev. Journal A. O. S.*, XI, 233,¹ read Τιμαγόραν; Ὀνασιμάλα[v], C D I, 120; Ὀνασαγόραν Τιμογόραν, *Berl. Phil. Wochens.*, 1886, pp. 1291, 1292, 1612; Πνυπαγόραν, *ibid.*, 1612.

The quantity of *a* in *-av* is uncertain. Brugmann, *Gramm.*, § 79, suggests *āv*; G. Meyer, *äv*. If short, *äv* from *āv*, when standing originally before an initial sibilant of the following word (twice before a consonant, four times before a vowel in the inscriptions) might be explained as Ζεός from *Ζηυς, νᾶυσί from νᾶνσί. But we have here rather a lightening of the masc. case termination in the *Ā* decl., appearing also in πολίτου; which is not from analogy to ἀνθρώπου, but from *πολιτηο, whence πολίτεω and *πολιτεο. See Bechtel in *Bezzenberger's Beiträge* X, 283.

The converse of this contraction of *ao* to *av* is seen in the Ionic *Καοκασίων ταῖτα*, etc. The *v* of Arcado-Cyprian *av* is not *ü*, but the old *u* sound. We must distinguish sharply the dialectic change of final and of medial *ao*, since in Boeotian medial *ao* alone became *av*; in Arcado-Cyprian medial *ao* never contracts to *av*. Τ[ρ]ἀνχαι, Roehl, 127, *i.e.* Coll. 871, and Σανκράτεις, Σάνμιλος, which are adduced by Blass, *Aussprache*,² p. 63, G. Meyer, *Gramm.*,² § 120, as examples of *a + o = av*, admit of another but not certain explanation,² which may also hold good in the case of the forms in *Λαν-* (*e.g.* *Λανδικεύς* in late Attic). On the Arcadian fem. gen. in *av*, see p. 103.

NOTE. — The more original form *-ao* (as in Homer and in Boeotian) is found in Cyprian, but never in Arcadian. But two forms occur: *Δαγατίσao* (or *Δαίτίσao*), 58, and *Κυπραγόραο*, 79, both of uncertain date. In order to escape from the necessity of regarding this *-ao* as a survival of the original *-ao*, an assumption which excites the hostility of surprise if in Arcado-Cyprian final *ao* became *av*, it is advisable that we regard this *-ao* as due to the orthographical fluctuation between *ao* and *av*. Such variation is, it is true, chiefly Ionic, but found also in Attic: *Ἀδοκρά[τ]ης*; Kumanudes, Ἄτρ. ἐπιγρ ἐπιτ., 2597. It is difficult to see whence Cyprian *-ao* could have been borrowed, as

¹ This inscription is regarded as spurious by Voigt and Deecke.

² By parallelism of the forms of the base *σαφο-*, viz. (1) *σανο-*, *σαο-*, and (2) *σαν* before consonants, *σα-* before vowels. (See Spitzer, *Lautlehre des Arkadischen*, pp. 43, 44.)

ao had ceased to exist except in Boeotian at the period in which these two inscriptions were composed; and that *-ao* should have become *-au* both in Cyprian and Arcadian, after their separation, is improbable. If the above explanation, which I present with hesitation, be not adopted, another possibility will the more readily gain the suffrage of scholars,— that the Cyprian forms in *-ao* are nothing more than conscious archaisms.

2. *ἀπύ* with the dative.¹ *Arcadian*: ἀπνέσ[θ]ω δὲ ὁ ἀδικήμενος τὸν ἀδικέντα ἐν ἀμέραις τρισὶ ἀπὺ τᾶν ἀν τὸ ἀδικήμα γένητοι, 1222_{3,5}. *Cyprian*: ἀπὺ τᾶν ζῶν τᾶν βασιλῆφος, 60_{8,17}; ἀφ' ὧν φοι τὰς εὐχολᾶς ἐπέτυχε, 59₈ (*a · po · i · vo · i*).

In No. 103 Deecke reads [ἀ]π' ὠτοδακῶ(ν), but *po ·*, which is written cursorily by Deecke should rather be upright, as it is uncertain; and *ta ·*, upright in Deecke, ought to be cursive. Hall has *ko ·* (or *po ·*) *i · to · ta · ko ·* (or *po ·*).²

3. *ἐς*, *i.e.* *ἐκ ἐξ* with the dative. *Arcadian*: Κύριοι ἐόντω οἱ ἐσοδοτήρες τὸν μὲν ἐργάταν ἐσδέλλοντες ἐς τοὶ ἔργοι, τὸν δὲ ἐργῶναν ζαμόντες ἐν ἐπίκρισι, 1222₄₉₋₅₀. *Cyprian*: ἐξ τῶν φοίκων τῶν βασιλῆφος καὶς ἐξ τᾶν πτόλιγι, 60_{5,6}; ἐξ τῶν χώρων τῶνδε, 60₁₁; ἐξ τᾶν ζῶν τᾶνδε ἰ ἐξ τῶν κάπων, 60₂₄. Cf. p. 72 for Cyp. *ἐς*.

4. *νσι* in the third plural active. Doric, Elean, North Greek, *-ντι*; Boeot., *-νθι*; Aeolic, *-σι*.³ *Arcadian*: κ[ρ]ίνωνσι, 1222₅; κελεύωνσι, 1222₁₅; παρετάξωνσι, 1222₂₈ (from *παρατάξω* in the sense of *ἐξετάξω*). *Cyprian*: ἔξο(ν)σι (*e · ke · so · si ·*), 60₃₁, where Deecke transcribes *ἔξωσι*. In the same line *ἴωνσι* (*i · o · si*); but as Deecke has *ἴωσι*, this case of similarity between Arcadian and Cyprian is not free from suspicion.⁴

The Pamphylian dialect, though in its ground-type Doric in character, is so frequently colored by its proximity to Cyprus, that its forms may here be offered in evidence, *e.g.* *ἐξάγωδι*, 1267₁₆. Here we have *δι* = Doric *τι*, but no *ν* graphically expressed, though it was the cause of *τ* becoming *δ*.

It cannot be shown that the *-νθι* of Boeotian and (probably) of Thessalian is the middle sound between *-ντι* and *-νσι*, or that it is anything more than a local affection. The assibilation in Aeolic and Arcado-Cyprian has no need to seek its cause in Ionic influence.

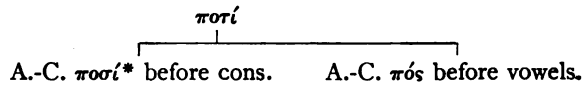
¹ M. Geyer, *Observationes epigraphicae de praepositionum graecarum forma et usu*. Altenburg, 1880, p. 25.

² Meister in the *Berl. Phil. Wochens.*, 1885, p. 1604, reads *πὸ τῶτακῶ*.

³ Cf. Müller, *De ζ littera inter vocales posita*, p. 70.

⁴ Brand, *De dialectis Aeolicis*, p. 22, writes *-νσ-*; so also Johansson in *Några ord om dialekter*, p. 31.

5. *πός* = *Arcadian*: *πός*, 1222₂₄; *ποσκατυβλάψη*, 1222₂₈; *πόσοδομ*, 1222₉. *Cyprian*: *πός*, 60_{19-20, 21}; and perhaps in *ποεχόμενον*, 60_{19, 21}, if Deecke is correct (Collitz Sammlung, I, p. 12). Meister, however (Berl. Phil. Wochens., 1885, p. 1604), claims that this *ποεχόμενον* represents *ποεχόμενον*, and finds *ποι* in *ποι τῶτακῶ*, Coll. No. 103 (the accent is uncertain: *ποι* or *ποί*). At present *ποι* has turned up in the Oeanthean inscription, Coll. No. 1479₁₅ (about 430 B.C.)¹; in Troezen Cauer,² 62₉; in Epidaurus, Ἐφημ. ἀρχαιολ. 1883, p. 211, l. 2; cf. Et. Mag. 678₄₄, *ποι παρὰ Ἀργείους*, and Steph. Byzanz. s. v. Ἀλιεῖς; in Boeotian, Παιδικός, Coll. 553₁₈; in the Delphian month Πουτρόπιος, Cauer,² 219₃; and finally in Corcyraean, *ποι τὸμ*, C. I. G. 1838 a 3, *ποι τῆι*, C. I. G. 1840₁₇, though Blass (B. B. XII, 193, 196) writes *πο<τ>*. Arcado-Cyprian *πός* is not formed from **ποσί* < *ποσί*, nor does it stand in any conceivable relation to *περτί*, *πορτί*, *προσί*, or *πρός*, as is held by Meister, I, 44, Brand, De dialectis Aeolicis, p. 54. Nor is there any trace of the existence of a pan-Doric or pan-Aeolic **pṛti*, which has been regarded as the fruitful source of all these various forms. In the Berl. Phil. Wochens., 1885, p. 1604 (cf. Baunack, Inschrift von Gortyn, p. 22, note), Meister adopts the following explanation of the descent of *πός* and *ποι*:—



This presupposes the retiring of **ποσί* in Arcadian after the separation of Cyprian, and the origin of *ποι* from **ποσί*. Only under this supposition could *ποι* have become *πό* in *ποεχόμενον*. This explanation is radically defective: first, because **ποσί*, like the Pelasgians, is there only to be driven away; and secondly, because it ignores the correspondence between *ποι* and Lettic *pi*, Lithuanic *pi*. Bechtel (B. B. X, 287) has clearly pointed out that *πός* is for *ποτ + s* (cf. *λελυκός* < *-στ + s*), whether *s* was directly affixed to *πότ* or to *ποσί*. Italian dialects fall easily into line with *obs*, *sus*, Oscan *pus*, etc. This explanation is preferable to that of Johansson (Några ord om dialekter, p. 32, note), whereby *πός* = *ποσί* before a vowel; to that of Prellwitz, which compares directly *pos-t*, *pos-sideo*, Lithuanic *pas*; and to the equation of Spitzer, *ἐπί*: *ἐπ* :: **ποσί*: *πός*. As a

¹ *πό* adduced as Locrian (cf. Allen, Curt. Stud., III, 271) is now read *πορούς*, Coll. 1478₂₈, for *πδτ τρούς*.

matter of fact, *ποὶ* is generally used before a consonant, *πότ* before vowels (Baunack, Studien, I, 12; Prellwitz, G. G. A. 1887, p. 439).

In Coll. 68 we have *ποτ'*, an inscription which shows the influence of the epic verse, according to Deecke. See, however, Hall, A. O. S. XI, 220. It is possible that a *ποτ(ί)* may be due to an imitation of the epic dialect, which has *ποτί*, but only in composition. I prefer, however, to read *ποτ(ε)* with Allen, *Versification*, p. 150. In the same line we have *πότι*, which is supposed by Spitzer, p. 47, to be the result of an unfortunate attempt to give an epic coloring to the Cyprian *πόσι*. *πότις* for *πόσις* is not Greek, the IE suffix *ti* becoming *σι* generally in Doric, and Homeric *φά-τις μάν-τις* are but indifferent analogues. It cannot be doubtful but that *πόσις* was the genuine Cyprian form, as the dialect shows no little hostility to *τι*; cf. *σίς*, *σί βόλε*, etc.

The preferences of the different dialects may here be given: Aeolic, *πρός* and *πρές* (?); Thessal., *ποτί* and *πότ*; Boeot., *ποτί* and *προτί*; Pamphyl., *περτί*.

NOTE.—The parallelism which has been assumed on account of a supposed genitive in *-ων* in the O declension in both dialects is unwarrantable. In Cyprian, cases of *-ων* are not infrequent ('*Οναίων*, 21, Berl. Phil. Wochens., 1886, p. 1290; *Νωμηίων*, ll. 1886, p. 1323; *Θεοτίμων*, 42; *Ἀβιδύλων*, 59; *πε(μ)φαμέρων*, 59; *Φιλοκύπρων*, 60₁; *Ἰονασικύπρων*, 60_{2-3, 11, 30}; *Ἰονασίων*, 60₂₄; *ἀργύρων*, 60_{7, 25-26}; *ταλδ(ν)των*, 60₇; *ὕχῃρων*, 60_{5, 15} (not *ὕχῃρων* as Deecke), *Δρυμίων* 60₁₉. The Arcadian *τωνί*, in agreement with *τῶ ἐπιζαμῖω*, 1222₃₆, is not *των-ί* (= *τουτουί*), but *των-ί*, *νι* having been taken from *των-ί(δ)*, *ταν-ίδ*, etc. Cf. *δι* from *τοδ-ί*, *ταν[ν]* 1222₅₃, and the Thessalian particle *-νε* in *τοῦν-νε-ουν* 345₁₇ equivalent to Homeric and Aeolic *-δε* in *τοῖσ-δε-σσι*, *τῶν-δε-ων*. See Baunack Studien, I, pp. 55, 56. The *ν* of the Cyprian genitive singular is as yet unexplained, though perhaps it may be regarded as a relic of this *-νι* or *νε*,¹ which may have attached itself to the pronominal declension in Cyprian; cf. *μέν* for *μέ* in *κά μεν ἔστασαν*, 71,² and *μι* in No. I, which may either represent *με* or *μι(ν)*.³ This suggestion is certainly nearer the truth than that of Ahrens (Philologus, 1876, pp. 12-13). Ahrens assumed an older ending *-ως*, which from the analogy of *-μεν -μες*, *ἀθῖν ἀθῖς*, etc., became *-ων*. Another explana-

¹ Since writing this I learn that Bezenberger has already made the same conjecture (G. G. A., 1887, p. 427). Cf. the change of *-δι* to *-δε* through influence of *δέ*.

² Cf. *ἐμέν* = *ἐμέ*, Kaibel, 322 (214 A.D.), Sardis, probably a slip. The Tamassus inscription (Berl. Phil. Wochens., 1886, p. 1323) has *τόν(ν)ν* according to Sayce, which is adopted by Deecke. The stone has, however, according to Pierides, *το' νε*.

³ *μιν* occurs in 45 according to Voigt and Hall. Read *μι(ν) εὐξάμενος περὶ παιδί τῶι Περσεύται μιν ἔθηκε ἰ(ν) τύχαι*. Certainly no meaning can be extracted for *ὶ* in *ὶ-εὐξάμενος*.

tion—by analogy of the plural *-ων*—has only slight support, the singular generally exercising a controlling influence upon the plural, as *ἡμεῖο* upon *ἡμείων*. As regards the explanation from *-νε -νι* suggested above, care must be taken to distinguish this *-ν* from the *ν* *ἐφελκυστικόν*, which is entirely absent from Cyprian (see on p. 110), as it is from Aeolic, Thessalian, and¹ Boeotian non-κοινή prose inscriptions; in Arcadian it is of extremely rare occurrence.

The points of contact between Arcadian and Cyprian, which are the possession of these two dialects and of none other, are, it is true, but few. Their important character, however, embracing both phonetical and syntactical correspondences justly entitles them to claim a unique position in stamping the relation of these allied dialects. The comparatively isolated position of both dialects, their hostility in these instances to the ingression of Greek forms of another type, have here served to shelter memorials of a prehistoric age.

Extending our range of observation by a gradual widening of our horizon, it will first be necessary to notice two features in which Arcado-Cyprian is in touch with Homeric usage alone.

ARCADO-CYPRIAN AND HOMER.

1. Infinitive termination *-ῆναι*. *Arcadian*: *κατυφρονῆναι*, 1222⁴⁷; *ἀπειθῆναι*, 1222⁴⁸.² *Cyprian*: *κυμερῆναι*, 68⁴, is preferable to Ahrens' *κυμέρναι*; cf. *δοφεναι*, 60^{5, 15}, of uncertain accent. Outside of Arcado-Cyprian this termination occurs in Homer and nowhere else. Fick (*Ilias*, p. 395) refers the Homeric form *φορῆναι* in B 107, H 149, to a Cyprian source. The same form, K 270, rests, according to this scholar, upon imitation of the poem B–H, which he thinks was composed either by a Cyprian bard or for a Cyprian audience (*Ilias*, pp. 258–259, 394). For a brief statement of the grounds of this theory, see A. J. P., Vol. VIII, 479–481.

On the origin of the form, see Spitzer, p. 45, who supposes that *ἀπειθῆναι* is either from **ἀπείθημι* or from **ἀπειθίγεν* with assimilation to the *-ναι* inf. ending. The treatise of Johansson (*De derivatis verbis contractis*) has put the *-ῆναι* forms in a totally different light.

¹ Thessalian seems often to have had recourse to a *ν* which is not *ν* *ἐφελκ.* e.g. *-ν* in the infinitive *ὄνγραψεν*, *δεδόσθειν*.

² *ῆναι* is from **ἔσ-ναι*, as *ἡμί < ἔσμί*, by combination of Doric *η* and Ionic *-ναι*. See page 94, note 1.

2. *Arcadian*: βολόμενον, 1222₂₄. *Cyprian*: σί βόλε· τί θέλεις, Hesychius. Cf. βόλομαι in Homer, *Λ* 319, α 234. The Aeolic βόλομαι, Doric, Pamphylian¹ βώλομαι (Boeot. βωλά), Thessalian βέλ-λειται and Εύβολίνος, Boeotian βείλομαι, may have a different present stem from that contained in the simpler Arcado-Cyprian form. Thus βολ- may, through βολνο or βολω, have been the progenitor of βολλ-, etc. The possibility of reduction of the double liquid even in prose cannot, however, be gainsaid. All the above-mentioned dialects, however, agree in having the original β sound before the obscure vowel sound ο, the Locrian, Delphic δείλομαι, the Heracleean δήλομαι, having the dental representation of the palatal g before the clear vowel ε.

ARCADO-CYPRIAN AND AEOLIC.

Strong stem κρετες- for the later and weaker κρατες-. *Arcadian* (in Tegea and Kletor): Αύτοκρέτ[ης], 1246, D 17; Καλλικρέτης, 1246, B 15 and B 3 (gen.); Σωκρέτης, 1231, C 1; Τιμοκρέτης, 1231, C 50 and -(τε)ος C 23, 1246, C 9; Εύρυκρέτης, 1231, B 32; Νεοκρέτες, 1189, A 61 (not Μενο-); Πολυκρέτεια, 1237; Εύθυκρέτης, Le Bas-Foucart, 338 b₃₂. *Cyprian*: 'Αριστοκρέτης, 71; Τιμοκρέτης (?), 121; Τιμοκρέτεος Φιλοκρέτεος, Berl. Phil. Wochenschr., 1886, pp. 1290, 1291; -κρέτης, 148.

κρέτος is called Aeolic by Joh. Gramm. 244; ἐπικρέτει, Alc. 81, by emendation; cf. Alc. 25. κρέτος, according to Buttmann's conjecture in the scholiast on *Vespae*, 1234.

These dialects also possess forms from the base -κρατες-, which, morphologically speaking, is later than -κρετες-. *Arcadian*: 'Αλεξικράτης, 1181, B 29; 'Αριστοκράτει[α], 1238; 'Αριστοκράτης, 1181, A 12; 'Αστυκράτης, 1211_{3,5}; Δαμοκράτης, 1249₈; Δαμοκρατίδας, 1181, A 5; Δεξικράτης, 1231, C 36; 'Επικράτεος, 1204, -εος, 1204; Εύκράτης, 1248₄; Καλλικρατίδας, 1239; Κρατέαν, 1240₅; Νεοκράτη[ς], 1246, D 16; Νι(κο)κράτεος, 1189, A 36; Ξενοκράτεος, 1248₅; Σωσικράτης, 1231, C 49; Τιμοκράτης, 1181, B 11; [Φ]ιλ[οκ]ράτεος, 1246, B 11. *Cyprian*: Στασικράτης, 17, -εος, 18; Κυπροκράτιφος, 2. Thessalian and Boeotian have -κρατος, never -κρετος.

Since the weak base -κράτες- appears as early as Homer, it is probable that both forms existed side by side in Arcado-Cyprian, the κράτος type (from nom. κρέτος, gen. *κρῆτεος), not having been able

¹ ἐβωλάσεν, 1267₈; βωλήμενος, 1267₁₅; not βολ-, as is read by Brand De dialectis Aeolicis, p. 22.

to completely displace the other. Other examples of a supposed pan-Aeolic $\epsilon\rho$ for $\alpha\rho$ are $\theta\acute{\epsilon}\rho\sigma\omicron\varsigma$, Aeolic $\acute{\epsilon}\rho\sigma\eta\gamma$, $\iota\epsilon\rho\acute{\omicron}\varsigma$, $\beta\acute{\epsilon}\rho\epsilon\theta\rho\omicron\gamma$, Arcad. $\acute{\epsilon}\rho\iota\omega\gamma$, etc. Cf. p. 90.

ARCADO-CYPRIAN AND THESSALIAN.

Arcadian: $\pi\acute{\omicron}\lambda\iota\varsigma$ found only in Pausan. VIII. 12. 7: $\kappa\alpha\lambda\acute{\epsilon}\iota\tau\alpha\ \delta\acute{\epsilon}\ \tau\acute{\omicron}\ \chi\omega\rho\iota\omicron\gamma\ \tau\omicron\upsilon\tau\omicron\ \acute{\epsilon}\phi'\ \acute{\eta}\mu\omega\gamma\ \Pi\acute{\omicron}\lambda\iota\varsigma$. If this evidence be accepted together with the testimony of the inscriptions, Arcadian had both $\pi\acute{\omicron}\lambda\iota\varsigma$ and $\pi\acute{\omicron}\lambda\iota\varsigma$. But the epigraphic monuments have only the latter form, which is also Aeolic, Boeotian, Elean, Pamphylian, Doric, and Ionic. *Cyprian*: $\pi\acute{\omicron}\lambda\iota\varsigma$, 60. Cf. Schol. Ψ_1 , $\pi\acute{\omicron}\lambda\iota\gamma$] $\pi\acute{\omicron}\lambda\iota\gamma$. $\text{Κυπρίων τῶν ἐν Σαλαμῖνι ἢ Λέξις}$. Cyprian has no case of $\pi\acute{\omicron}\lambda\iota\varsigma$. *Thessalian*: $\omicron\iota\ \tau\tau\omicron\lambda\iota\alpha\rho\chi\omicron\iota$, 1330; $\acute{\alpha}\rho\chi\iota\tau\tau\omicron\lambda\iota\alpha\rrho\chi\acute{\epsilon}\gamma\tau\omicron\varsigma$, 1330₂; from $\omicron\iota\ \pi\tau\omicron\lambda$, which is a change of medial, not of initial, $\pi\tau$ to $\tau\tau$; cf. Λεττίναϊος and Brugmann, Grundriss, §§ 333, 654₄. $\pi\acute{\omicron}\lambda\iota\varsigma$ also occurs in Larissaeon inscriptions.

It is difficult to make this word any dividing line between the dialects without including the other case of $\pi\tau < \pi +$ parasitic ι , *i.e.* $\pi\acute{\omicron}\lambda\iota\epsilon\mu\omicron\varsigma$, which is Homeric, Attic, and Cyprian, according to Heraclides in Eustathius, 842, 62; and $\pi\acute{\omicron}\lambda\iota\epsilon\mu\omicron\varsigma$ occurs on a Cretan inscription, C. I. G. 2554₁₉₇. It seems, therefore, that the other dialects never developed the $\pi\tau$ -form of these words.

There is no firm link connecting Arcado-Cyprian with Thessalian which does not at the same time serve to connect either Aeolic or Boeotian.

ARCADO-CYPRIAN, AEOLIC, THESSALIAN.

1. The preposition $\acute{\alpha}\pi\acute{\upsilon}$ = $\acute{\alpha}\pi\acute{\omicron}$.

Arcadian: 1222_{3, 4, 13, 35}, etc. *Cyprian*: $\acute{\alpha}\pi\acute{\upsilon}\ \tau\acute{\alpha}\iota\ \zeta\acute{\alpha}\iota$, 60_{8, 17}. *Aeolic*: Sappho, 44; C D. I., 213₁₅; 238₁₀, etc. *Thessalian*: 345_{3, 23}, 1308.

2. *Arcadian*: $\kappa\acute{\epsilon}$ (in conjunction with $\acute{\alpha}\nu$), 1222₂.¹ *Cyprian*: $\kappa\acute{\epsilon}$ in $\acute{\eta}\ \kappa\epsilon$ (= Attic $\acute{\epsilon}\acute{\alpha}\nu$), 60_{10, 23}, and in $\omicron\pi\iota\sigma\iota\varsigma\ \kappa\epsilon$ (= $\omicron\sigma\tau\iota\varsigma\ \acute{\alpha}\nu$), 60₂₉. Cyprian has $\kappa\acute{\epsilon}$ alone, never $\acute{\alpha}\nu$. $\kappa\acute{\epsilon}$ is also *Aeolic* and *Thessalian*; $\kappa\acute{\epsilon}\nu$ is Aeolic and Homeric alone. $\kappa\acute{\alpha}$ is the form of this particle in Doric, North Greek, Boeotian, and Elean.

¹ This is disputed by Kirchhoff Mon. Ber. Acad. Berl. 1870, p. 52. Arcadian is the only dialect except the Homeric that possesses both $\kappa\acute{\epsilon}$ and $\acute{\alpha}\nu$. Boeot. $\kappa\acute{\epsilon}\nu$, 488₃₆, a document composed in Attic, is $\kappa\alpha\iota + \acute{\epsilon}\acute{\alpha}\nu$. $\acute{\alpha}\nu$ occurs seventeen times in 1222; $\acute{\eta}\gamma$, 1227₅.

NOTE. — The impossibility of explaining η in η $\kappa\epsilon$ as the exact phonetic equivalent of $\epsilon\iota$ (despite Deecke's statement in B. B. VI. 79, that η in $\Phi\eta\pi\omega$ is regularly used for $\epsilon\iota$) has led G. Meyer, *Gramm.*,² § 113, to regard η $\kappa\epsilon$ as $\eta(\nu)$ $\kappa\epsilon = \acute{\epsilon}\acute{\nu}$ $\kappa\epsilon$. On this supposition, which is apparently adopted by Fick, *Odyssee*, p. 324, Arcadian and Cyprian would stand on a plane in possessing both $\acute{\epsilon}\nu$ and $\kappa\epsilon$. That we are not driven to assume a Cyprian $\eta\nu$ is, however, clear from the fact that η and $\epsilon\iota$ may in reality be different case forms of the stem $\sigma\upsilon\epsilon/o$. Baunack, *Inscription von Gortyn*, p. 50, suggests that $\alpha\iota$ is the locative of the feminine $\sigma\upsilon\acute{\alpha}$ -, η the instrumental, and $\epsilon\iota$ the locative of $\sigma\upsilon\epsilon/o$. The Heracleian Tables have fifteen cases of $\alpha\iota$, one of η (I, 77), and one of $\epsilon\iota$ (I, 127). The latter may be due to *κοινή* influence, which is not infrequent in these Tables. Other examples of η are C. I. G. 2483, 2484, where $\delta\iota\alpha\psi\alpha\phi\acute{\iota}\xi\alpha\sigma\theta\alpha\iota$ η $\delta\omicron\kappa\epsilon\acute{\iota}$ (cf. Ahrens, II, 381), and in the Gortyn inscription, IV, 31, η $\delta\acute{\epsilon}$ κ' $\acute{\alpha}\pi\omicron\theta\acute{\alpha}\nu\eta$ $\tau\iota\varsigma$; cf. V, 9, η κ' $\acute{\alpha}\pi$ (ο) $\theta\acute{\alpha}\nu\eta$ $\acute{\alpha}\nu\eta\rho$ η $\gamma\upsilon\nu\acute{\alpha}$, $\alpha\iota$ $\mu\acute{\epsilon}\nu$ κ' η $\tau\acute{\epsilon}\kappa\upsilon\alpha$, etc.

This explanation solves the difficulty of the interrelation of η (Cyprian), $\alpha\iota$ (Homeric, Aeolic, Thessalian, Elean, Doric, and Boeotian ($\acute{\eta}$), and $\epsilon\iota$ (Ionic, Attic, late Doric, and Arcadian¹). Cyprian η cannot be either the ancestor or the descendant of $\alpha\iota$ or of $\epsilon\iota$.

ARCADO-CYPRIAN, BOEOTIAN, THESSALIAN.

1. Treatment of the preposition $\acute{\epsilon}\kappa$ $\acute{\epsilon}\xi$.²

Arcadian: $\acute{\epsilon}\varsigma$, 1222₄₀, before a consonant; $\acute{\epsilon}\sigma\delta\acute{\epsilon}\lambda\lambda\omicron\nu\tau\epsilon\varsigma$, 1222₄₀, and the following forms before a consonant in 1222: $\acute{\epsilon}\sigma\delta\omicron\theta\acute{\epsilon}\nu\tau\omega\nu$, l. 7; $\acute{\epsilon}\sigma\delta\omicron\theta\acute{\eta}$, 52; $\acute{\epsilon}\sigma\delta\omicron\kappa\alpha\acute{\iota}\varsigma$, 51; $\acute{\epsilon}\sigma\delta\omicron\kappa\alpha\upsilon$, 40; $\acute{\epsilon}\sigma\delta\acute{\omicron}\sigma\epsilon\sigma\iota$, 16; $\acute{\epsilon}\sigma\delta\omicron\tau\acute{\eta}\rho\epsilon\varsigma$, 6, 15, 18, 48; $\acute{\epsilon}\sigma\tau\epsilon\upsilon\iota\nu$, 37. $\acute{\epsilon}\xi$ occurs in $\acute{\epsilon}\xi\acute{\epsilon}\sigma\tau\omega$, 1222₂₁; Ἐξ(ά)κεος , 1203₃; Ἐξ(α)κίδαν , 1204; and $\acute{\epsilon}\gamma$ in $\acute{\epsilon}\gamma\gamma\acute{\omicron}\nu\omicron\varsigma$, 1233_{6,7}.³ *Cyprian*: $\acute{\epsilon}\xi\beta\alpha\sigma\iota\nu$, 32 (Deecke), where ξ represents $\sigma\sigma$ ($e \cdot xe \cdot pa \cdot si \cdot ne \cdot$); ξ before β is, however, contrary to Greek phonetics, wherefore M. Schmidt transcribes $\acute{\epsilon}\sigma\sigma\beta\alpha\sigma\iota\nu$. $\acute{\epsilon}\sigma\varsigma$ $\tau\acute{\omega}\iota$ $\rho\omicron\acute{\iota}\kappa\omega\iota$, 60₅₋₆; $\acute{\epsilon}\sigma\varsigma$ $\tau\acute{\omega}\iota$ $\pi\tau\acute{\omicron}\lambda\upsilon\gamma\iota$, 60₆, etc. Curtius wrote $\acute{\epsilon}\sigma\sigma\omicron\nu\sigma\iota$, *Kleine Schriften*, II, 105. *Boeotian*: $\acute{\epsilon}\sigma\varsigma$ before vowels, e.g. $\acute{\epsilon}\sigma\varsigma$, 571 a 4 App., 713 b 8; $\acute{\epsilon}\sigma\sigma\epsilon\gamma\gamma\acute{\alpha}\phi\epsilon$ [ι], 735 ($\acute{\epsilon}\xi$, 400 a 4 App., 712₂; $\acute{\epsilon}\xi\acute{\epsilon}\iota\mu\epsilon\nu$, 497₉; and frequently elsewhere). $\acute{\epsilon}\varsigma$ before consonants in composition, e.g. $\acute{\epsilon}\sigma\gamma\acute{\omicron}\nu\omicron\varsigma$ about 25 times; cf. $\acute{\epsilon}\sigma\kappa\eta\delta\epsilon\kappa\acute{\alpha}\tau\eta$, 951₂ (but $\acute{\epsilon}\xi$, 502₄; $\acute{\epsilon}\xi\acute{\epsilon}\iota$ [κον]τα, 502₁₂). $\acute{\epsilon}\kappa$ is also Boeotian, 383₂; cf. $\acute{\epsilon}\gamma\gamma\acute{\omicron}\nu\omicron\varsigma$, 493₈. *Thessalian*: $\acute{\epsilon}\varsigma$, 1329, I A 15, before a consonant and in composition, as $\acute{\epsilon}\sigma\gamma\acute{\omicron}\nu\omicron\varsigma$, 345₁₉; $\acute{\epsilon}\sigma\delta\acute{\omicron}\mu\epsilon\nu$, 345₂₀; $\acute{\epsilon}\sigma\theta\acute{\epsilon}\mu\epsilon\nu$, 345₄₂. Before a

¹ In 1222 and in no other Arcadian inscription.

² On this, see Curtius, *Zu den Auslautgesetzen des Griech.* *Kleine Schriften*, II, 104.

³ Collitz (*Verwandschaftsverhältnisse*, p. 8) is not strictly correct in referring $\acute{\epsilon}\sigma\gamma\omicron\nu\omicron\iota$ to Arcadian.

vowel we have no case of *έσς*; cf. *έξεργασθείσθαι*, 345¹⁷,¹ and *ξέ*, 326₁; *ξείκοντα*, 326₄. *έκ* does not appear in any document composed in pure dialect. *έξ* in Thessalian and Boeotian is certainly, and in Arcadian and Cyprian probably, due to *κοινή* influence. *ές cum gen.* before consonants, *έξ* before vowels, is also Cretan.

2. Extremely problematical is the assertion of Spitzer (Lautlehre des Arkadischen, p. 23 ff.), that in Arcado-Cyprian final *αι*, *ηι*, *ωι* became *α*, *η*, *ω*, and that, while the other dialects accepted this change at a comparatively late date, Thessalian and Boeotian suffered the same loss of the final *ι* at a period when Cyprian had not been differentiated from Arcadian.

The grounds for this hypothesis are as follows: In Thessalian and Boeotian *ει* from *ηι* arose, not from the loss of one mora of the *ε* sound, but through *η*. It will, however, be noticed that *ει* may have come from *ηι* at a time when *ει* had already become *ι*. *ου* from *ωι* in Thessalian and in Boeotian arose from *ω*, and not from *αι*. *αι* is then, according to Spitzer, a pure locative, and had nothing to do with *ωι* originally.

Now, as to the facts in Arcadian and Cyprian, Spitzer asserts that both dialects possessed the dative *ωι* and the locative *αι*. In Arcadian we have no example whatsoever of *-ωι*, *-αι* occurring in *πολυμήλο[ι]*, 1200 = Roberts, 277; *ήμίσοι*, 1222₂₅; *αίτο[ι]*, 1222₁₂, 1233_{2, 6}; *έργοι*, 1222_{8, 49, 54}. *-αι* is the form which has either partially or entirely displaced the dative *-ωι* in Arcadian, North Greek, Boeotian,² late Elean, and Eretrian. In Cyprian we find *-ωι*, *-ω*, and *-αι*, according to Deecke. (1) *-ωι*: *φοίκωι* 60₈; *Αβροθάωι* (?), 129, 130; *μισαάτωι*, 126; *οίρωι*, 60₁₄; *Όνασίλωι* five times in 60; *τῶι* fifteen times in all; *τῶιδε*, 60_{11, 24}; *θιῶι*, 37, 61, 66 (?), 75 (?); *δεξίωι*, 37; *ήρωι*, 41, 96 (?); *Αμύκλωι* or *-οί*, 59₈. (2) *-ω*: *φ'Ωρω*, 41; *Μαγυρίω*, 120; *τῶ* about sixteen times. (3) *-αι*: *μυχοί*, 85, is doubtful, according to Deecke (Hall has *μυχοῖα*); *Παφοί*, 56 (Hall, *Πάφοι*, voc.); *Ηδαλιοί*, 62.

To maintain his theory, Spitzer demands that every case of *-ωι* should be expelled; and Cauer, in the *Wochens. für kl. Philologie*, 1884, p. 99, asserts the correctness of *-αι* over against Deecke's *-ωι*.³ But even Ahrens (*Philologus*, XXXV, 13) upholds the datives in *-ωι* and *-ω* parallel to the locatives in *-αι*. The burden of proof rests

¹ Perhaps influenced by *έξεργασθήσθαι* of Philip's letter in *κοινή*, which immediately precedes.

² It is not necessary to agree to Brand's assumption that before the separation of the various "Aeolic" tribes, the locative was used for the dative.

³ In his *Delectus* (1883) he wrote φ.

clearly on the shoulders of those who maintain that both old case forms do not exist contemporaneously in Cyprian; nor should the loss of *-αι* in Arcadian prejudice the case against its occurrence in Cyprian.

As regards *ηι* both dialects are in agreement. The final vowel is lost, the *η* never shortened. *Arcadian* has, in 1222, *τυγχάνη, ἔχη,* and *ποσκατυβλάφη*. *Cyprian* has *συλήση, 126; *Αδη, 126; ὀρύξη, 60^{12, 24, 25}; λύση, 60²⁰*. The only case of *ηι* is *Υφη, 124, which is not very certain. The age of all these inscriptions is such that any theory as to the loss of final *ι* from *ηι* in Arcado-Cyprian times builds upon a perilous foundation. The age of Alexander the Great witnessed the breaking down of the *ι ἀνεκφώνητον*.

Finally as to *αι*: Spitzer claims that Arcadian *αι* is not *āi* (either from *ā + αι, i.e.* dative, or from *ā + ι, i.e.* locative), but is from analogy to *οι*, and is the representative of the locative; while *ā* is from *āι*, and represents the dative. The latter form was, however, lost. In Cyprian, on the other hand, *ā* may be the representative of the old dative (*ā + αι*) or of the old locative (*ā + ι*). Cyprian *αι* is of the same origin as Arcadian *αι*. According to the common transcription we read in Arcadian *τᾱι, 1222³⁴*, as a relative, 1222⁴¹; in Cyprian, *ἀρούραι, 60²⁰; μάχαι, 60⁸; ἀζαθαῖ, 3 f.*; *τᾱι* eleven times, *τᾱιδε, 60¹⁴*; *τᾱ* at least four times. As the form stands, *τᾱι* may be a pure dative, >*ā + αι*; cf. Mahlow, *Die Langen Vocale, A. E. O.*, p. 53. Or the *αι* may be a locative, if pan-Hellenic *āι* >*ā + ι* became *āι*. Upon the question whether *ā + ι* became pan-Hellenic *āι* or pan-Hellenic *āι*, and whether *-αι* is from analogy to *-οι* or is an I.E. case-ending¹ with atonic *α*, as in *νύμφᾱ*, depends the character of the Arcado-Cyprian forms. It is not possible, from the limited material at our command, to determine whether Arcado-Cyprian *αι* is *āι* or *āι*.²

In view, however, of the uncertainty attendant upon this problem, and of the possibility that Thessalian and Boeotian *αι* and *ου* may not be authoritative for the period of the coexistence of Arcadian and Cyprian, it is advisable at present to leave the question to a more thoroughgoing investigation.

ARCADO-CYPRIAN, AEOLIC, THESSALIAN, BOEOTIAN.

There is no single morphological or phonetic feature shared in alike by each and all of these dialects to the exclusion of

¹ See Brugmann, *Gramm.*, § 82.

² Brand, *De dialectis Aeolicis*, p. 47, holds that *āι* is the Arcadian form.

all others. Nor is there any dialectic peculiarity of authoritative certainty connecting them all together by the operation of one and the same law.

1. Not beyond peradventure is the assumption that the older pronunciation of *v* as I.E. *u*, and not as *ü* (introduced in Asiatic Ionic and Attic not before the fifth century?), survived in these dialects as well as in Pamphylian, in Chalcidian, and in the Laconian vulgar dialect.¹ M. Schmidt (in *K. Z.*, IX, 366), Ahrens (in *Philologus*, XXXV, 8-9), Blass (*Aussprache*,² 35), have assumed the *u* pronunciation for Cyprus. Fick (*Ilias*, p. 256) claims on the strength of *Ἀμόντας* (Coll. 147) and the Hesychian glosses quoted, p. 76, that the Cyprian *v* had a leaning towards *o*, *i.e.* the closed *o*, which makes against the *ü* sound. This means of representing the *v* sound is found in Boeotian (*Ἀμόντας*, 603; *ὑπερδικιόνθω*, 429_s), late Laconian (*κονοουρέων*, C. I. G. 1347_b, for *κονοσουρέων*), dialects which had the *u* sound.² For Aeolic, cf. Priscian I, 27. Spitzer, p. 18, claims that this was the Arcadian as well as the Cyprian pronunciation. The relation of *v* to *o* is, however, the sole basis for this assertion, as it is in the case of Aeolic.³ The Boeotian pronunciation is certain from the use of *ov* for *v* (at first for *v̄*, later for *ῥ*). Thessalian *ov* for *ω* seems to point to *ü*, *Νυμειόι*, 345₂₅ > *νεφομήν(ν)ιος* being but an indifferent foundation for Prellwitz's attempt (de dialecto Thessalica, p. 13) to overthrow the conclusions of Blass, *Aussprache*,² p. 36, which are supported by Cauer, *Wochens. für kl. Philologie*, 1886, No. 33.⁴

This supposed connecting link between Arcado-Cyprian, Aeolic, Thessalian, and Boeotian, has been referred to here, since much has been made of it, especially by Curtius, *Kleine Schriften*, II, 160-162, as a means of demonstrating the original close relationship between all these dialects. As a matter of fact, even if in all these dialects *v* was pronounced *u*, nothing would be proved thereby as to their inter-

¹ The literary monuments and inscriptions of Sparta have no trace of *ov* for *v*, hence Blass assumes that the pronunciation of the cultivated classes may have been *ü*. Other traces of *u* are Corinthian *ῥυλοίδας*, Roehl, 20₄₇, and Chalcidian *ῥύφνος*, C. I. G. 7611.

² *Ῥολομπος*, C. I. G. 8412, an apparently Ionic inscription, and Cretan *Πότιος*, Rangabé, 2478, I, 23, are doubtful.

³ Wilamowitz (*Hom. Untersuch.* 288) maintains that the pronunciation as *u* was retained till the time of Pindar, and that Aeolic, Cyprian, and Eubæan Ionic (in the modern Kuma and Stura) had the old *u*.

⁴ Brugmann, *Grundriss*, § 48, excludes Thessalian from the list.

connection, since they would have only preserved for a longer period than other dialects a common heirloom such as \bar{a} , f , etc. Only if it can be shown on other cogent grounds that Lesbians, Thessalians, Boeotians, and Arcado-Cyprians were once united as a distinct tribe or ethnic unit, is this assumed retention of the I.E. sound u to be regarded in the light of corroborative evidence.

2. Change of o to v .

Closely connected with the retention of I.E. u , is the change of o to v , which is heralded as one of the most salient features distinguishing alike all these dialects.

Arcadian: ἀπό six times in 1222, both separately and in composition; ἄλλυ, 1222³⁸ (cf. δέυρυ, Herodian II, 933⁹, but δέυρο, Sappho, 84); κατύ < *κατό, as a direct change of a to v , is impossible.¹ κατό is from analogy to ἀπό: cf. Elean ὑπαδυγίους from analogy to μετά, etc. κατύ occurs alone 1222^{11, 29}, and in composition ποσκατυβλάψη, 1222³⁸; κατυστάση, 1222⁴³; κατυφρονῆναι, 1222⁴⁷. It is so far attested in Tegean alone. Finally, $-āo$ becomes $-av$ (or $-āv$) in the genitive.

Cyprian: εὐφρητάσату, 60₄; ἐφρητάσату, 60₁₄; γένουτν, 60₂₉; ὠρίσετο, 126;² ἴν- for ὄν = ἀνά in ἰνέθηκε, 45; but only if we adopt Deecke's reading in preference to that of Voigt and Hall (μιν ἔθηκε), which to my thinking is superior. ὄνέθηκε occurs about six times, and ἀνέθηκε twice. Finally, in $-av$ < $-āo$ as in Arcadian. The manifest fondness for v of Cyprian is supposed to be attested furthermore by the Hesychian glosses in which v is held to have passed into o : μοχοῖ· ἐντός (in No. 85 Deecke reads μυχοῖ; Hall, μυχοῖα); ἰνκαφότευσε· ἐγκαταφύτευσε; θόρανδισ· τὸ ἕξω. But other dialects made use of o instead of ou to represent the I.E. $ū$ sound, e.g. Boeotian,³ late-Laconian. Cf. also ὄγρός in Syra, θομός (for \bar{u}) in Crete.

Pamphylian: ἐβωλάσату, ὕ βωλήμενυς, Ἐστρῆδιδυς, Ὑδραμοῖαν, Ημάρῦ. The Pamphylian examples can scarcely be due to Doric influence in view of the vicinity of Cyprus.

Aeolic: ἀπό, 213¹⁵, 214⁴⁵, 238¹⁰, 250¹⁴, 232⁵, 248^{8, 9}, 311^{24, 29} (the only epigraphic examples of the change), Sappho, 44, 78. The κοινή ἀπό appears, e.g. 281_{1, 22, 34, 36}; ὕμοίως, 271_{1, 6}; ὕσδος, Sappho, 4

¹ Aeolic *σύρκες* (gramm.) is but an apparent exception; < **σῶρκες*?

² Spitzer claims (p. 17) that the Arcadian forms were $-τυ$ and $-τυτ$. This is by no means certain, though we have no example of $-το$ or of $-τυτο$.

³ Ἀμόντας, 603, as in Cyprian Ἀμό(ν)τα, 147. Fick, *Ilias*, p. 256, ventures to explain Κοπρῆος, O 639 as due to the Cyprian o for u .

(perhaps) ; ἡμάρτη, στύμα, ἕμοιος, ἡμάλικες, Theocritus. All other examples are doubtful.

Thessalian : ἀπύ, 345 s. 28.

Boeotian : Δέρμυι, Δέρμυς, 875, Δαμόθουινς, 689, are quoted by Pezzi (La Grecità, etc., p. 260), as possible examples of the substitution of υ for ο before 403 B.C. The latter example is now read by Meister, -θουιν[ο]ς or -θουιν[ι]ς. Boeotian is confessedly the weakest member of the group, but Herculean efforts have been made to wheel into line this, according to Boeckh, the oldest of the "Aeolic" dialects : —

ἀπύ is explained as being practically equivalent to ἀπύ or ἀπού ; and Διουκλείς, Νιουμών, [Θ]ιουτίμυ, are cited as having ου = υ = ο. On the other hand, ο stands for υ in ὄπερδικιόνθω, 429 ; cf. οὔπερδικιόνθω, 430.

ἀπύ is certainly a striking joint possession of Arcado-Cyprian, Aeolic, and Thessalian. Boeotian, Elean,¹ and Pamphylian, alone stand out against a pan-Aeolic ἀπύ, which is the only word that even the most determined advocate of the prehistoric interconnection of these dialects can claim as pan-Aeolic.

If *non res ipsa sed frequentia exemplorum* as regards υ for ο be held to be a peculiarity of "Aeolic," it cannot be denied that at least four of the above dialects show a tendency which on any fair view must be held to date so far back as to point to some sort of closer connection. In Ionic examples of υ for ο are rare ; but in Doric they are more numerous, though at best sporadic. Cf. G. Meyer, *Gramm.*², § 62.

It is pretty clear that of the two short ο sounds, one became closed at a very early period in Greek. The second ο of ὄνομα must have suffered this change to a partial extent before the separation into dialects. In other words, the closing of the open ο came later, but certainly in Arcado-Cyprian, Aeolic, Thessalian, and perhaps Boeotian, at a period before a similar tendency came into existence in Doric and Ionic.

NOTE 1. — Cyprian Πρυτίτω, 149, is perhaps connected with πρό as πρύτανις and possibly πρύμνα and πρυλέες. The Aeolic form is, however, πρότανις.

NOTE 2. — It is singular that in a dialect with so pronounced a predilection for υ as the Arcadian we should nevertheless have ὄνομα. In Arcado-Cyprian the substitution of υ seems to be confined to the final syllable of words having more than one syllable. An A-C ὄνυ = ἀνά is therefore very doubtful.

¹ Roehl, 556, has ἠνέθηκε. G. Meyer suggests that the inscription is Laconian rather than Elean. But neither Laconian nor Elean has any example of the "darkening" of ο.

There is no link between Arcado-Cyprian and Boeotian which does not at the same time serve to connect Arcado-Cyprian and Thessalian or Aeolic.

The vigorous preferences of Arcado-Cyprian for the dialects of the Aeolic type alone having thus been disposed of, it is now imperative to again widen our circle of observation. The keener our hunt after traces of kinship between Arcado-Cyprian and other dialects, the more urgent is the necessity of beholding its ever-enlarging sympathies. Nor is this necessity obviated by our feeling that, in proportion as we enlarge these dialectal circles, the phenomena in question lose in authoritativeness. In estimating the propensions of a dialect, the course of investigation shows that a slight touch is oftentimes more indicative of genuine or, it may be, of original sympathies than rude masses of color. A qualitative, not a quantitative, standard can be of value here. The circles in question grow in extent till the last embraces those phenomena which are obviously, if not actually, pan-Hellenic. As before hinted at, it is here that it is oftentimes difficult to determine whether we are dealing with a pre-dialectal survival of Hellenic speech, or with a formation that is merely incidental to an early innovatory stage of the period of actual dialectal existence.

ARCADO-CYPRIAN AND IONIC.

The infinitive termination *-vai* referred to above, p. 69.

ARCADO-CYPRIAN, AEOLIC, IONIC.

$\tau\acute{\iota}$ = $\sigma\iota$ in the terminations of the verb (*-ovti*, *-ovti*) are treated differently as regards the preceding vowel, but all agree in the assibilation. On Cyprian $\acute{\iota}\omega(\nu)\sigma\iota$ or $\acute{\iota}\omega\sigma\iota$, see p. 66. Doric, *-ovti*, *-ovti*.

ARCADO-CYPRIAN, DORIC, IONIC.

Nominative in *-ης* from η stems. The η declension parallel to that in \bar{a} has survived in a few sporadic examples in Greek. Its existence in Latin, in the so-called fifth declension, substantiates the belief that in Greek it antedates the separation into dialects.

Arcadian: *ιερής*, 1231, B 34, C 1.29,30; *ιαρής*, 1235; *γραφής*, 12307, 1236. *Cyprian*: *ιερής*, 33, is the only example, the common form in *εως* being found in No. 40. *βασιλεύς* is frequent in Cyprian, and there is no example of *βασιλῆς*. Arcadian has neither form. Outside of Arcado-Cyprian the *η* inflection has generally been displaced by that in *ην*, as in Aeolic. The following examples, however, occur: Homer, **Ἄρην*; Archilochus, 48, **Ἄρεω* < **Ἄρηο*; cf. **Ἀντιφάτην*, ο 242, by the side of **Ἀντιφατῆα*, κ 114. Ionic *ιέρω*, Olbia, C. I. G. 2058, A 23; Tomoi, Arch-epigr. Mitth. VI, 8, No. 14.¹ Doric *Τῦδης*, **Ὀρφης*, *Φύλης*; cf. Lat. *Ulixes Achilles*. G. Meyer is incorrect when he attempts to explain *ιερής* for *ιερεύς* from analogy to *εὐγενής*, since the genitive of *ιερην-* is in its oldest form *ιερῆφος*, to which *εὐγενέος* offers no parallel. Cf. G. Meyer, *Gramm.*, §§ 323, 324; Bechtel, *Inschrift aus Eresos*, in the *Göttingen Nachrichten* for June 30, 1886; Spitzer, *Lautlehre des Arkad.* p. 27; Johansson, *De verbis derivatis contractis*, p. 74. The Boeotian forms in *-ει = η* (*Εἰρωῦλλει*, *Μέννει*, *Φίλλει*, etc.) are doubtful. It was suggested by me (*Der Diphthong EI*, p. 41) that they were survivals of the *η* declension, an explanation adopted by Bechtel, p. 378. Others regard them as having lost the final sibilant of the nominative. Meister, I, 272; but cf. also p. 310.

ARCADO-CYPRIAN AND DORIC.

η, not *ει* (*ē*), is the result of compensatory lengthening. Arcadian *ῆναι*, *φθῆρων*; Cyprian *ῆμί*. The dialects diverge in the treatment of *ωνς*. But there is no example of *ου* (closed *ō*) for *ω* (*i.e.* open *ō*) of other dialects.

There is as yet no authority for an Arcado-Cyprian contraction of *α + ε* to *η*, as in Doric, Elean, and North Greek. See p. 81.

Spitzer's ascription to Arcado-Cyprian (p. 57) of the personal ending *-ες* in the indic. present, is based upon no foundation save that, as the Cyprian form is old, it might well have been a survival of an Arcado-Cyprian period. But a solitary instance is found: *ἔς πόθ' ἔρπες · πόθεν ἦκεις. Πάφωι*. With this compare the Theocritean *συρίσδες*, I. 3, which is certain, and *ἀμέλγες*, IV. 3. This form occurs on no Doric inscription. Whether the form in *-ς* is pro-ethnic (cf. Latin *legis*; old Irish, *do-beir*, **-beres*), or merely a Greek parallel to *τιθῆς*, has not yet been made out.

¹ The nom. *ιέρως*, *Rev. Arch.* XXVIII, 106, from *λεώς*; *λεώ = ιέρω*.

It is not improbable that the Arcado-Cyprian infinitive of $-\omega$ verbs ended in $-v$; e.g. Arcad. $\iota\mu\phi\alpha\acute{\iota}\nu\epsilon\nu$ (or $\iota\mu\phi\alpha\acute{\iota}\nu\epsilon\nu$), Cypr. $\xi\chi\epsilon\nu$. As Deecke reads $\xi\chi\eta\nu$ in the single passage where any such formation occurs, the assumed parallelism between Arcadian and Cyprian must be left in dispute. Johansson, *De verbis derivatis contractis*, p. 202, accepts an Arcado-Cyprian $\xi\chi\epsilon\nu$, comparable to Doric $\kappa\rho\acute{\iota}\nu\epsilon\nu$, and to an Ionic $\acute{\omicron}\phi\acute{\epsilon}\lambda\lambda\epsilon\nu$ (Cauer², 527). See p. 96.

$\acute{\iota}\nu$ for $\acute{\epsilon}\nu$,¹ formerly held to be a distinctive peculiarity of Arcado-Cyprian, has now appeared upon a Cretan inscription. See Merriam, *Am. Journ. Archaeol.* III, 312. $\acute{\iota}\gamma\nu\acute{\eta}$ was regarded by Curtius as standing for $\acute{\epsilon}\gamma\gamma\nu\acute{\alpha}$. $\acute{\epsilon}\nu$, *cum accus.* and *cum dat.*, is a relic of the period when this preposition was construed as the German *in*.² The Aeolic $\acute{\epsilon}\acute{\iota}\varsigma$ and Ionic $\acute{\epsilon}\acute{\varsigma}$ ($\acute{\epsilon}\acute{\iota}\varsigma$) gradually drove out this double construction. If the Aeolians of Lesbos ever used $\acute{\epsilon}\acute{\varsigma}$ *cum genet.*, its obsolescence must have been caused by the adoption of the Ionic $\acute{\epsilon}\acute{\kappa}$, and have been subsequent to the period when $\acute{\epsilon}\nu$ *cum accus.* was replaced by $\acute{\epsilon}\acute{\iota}\varsigma$ *cum accus.*

ARCADO-CYPRIAN, DORIC, AEOLIC, AND CONNECTED DIALECTS.

1. Genitive plural, \hat{A} declension. *Arcad.* $\acute{\alpha}\lambda\epsilon\alpha\tau\acute{\alpha}\nu$, $\acute{\epsilon}\rho\gamma\omega\nu\acute{\alpha}\nu$, $\tau\epsilon\gamma\epsilon\alpha\tau\acute{\alpha}\nu$. *Cypr.* $\acute{\epsilon}\pi\alpha\gamma\omicron\mu\epsilon\nu\acute{\alpha}\nu$. Here Homeric, Boeotian $-\alpha\omega\nu$, Thesalian $-\alpha\omicron\nu$, alone show the older form.

2. Genitive sing., O declension. *Arcad.* $\tau\acute{\omega}$, *Cypr.* $\theta\epsilon\acute{\omega}$. $-\omicron\omicron$ must then have been open sounds at the period of contraction. On $-\omega$, $-\nu$, see pp. 68, 118. $-\omicron\omicron$ from epic reminiscence in Arcad., Roberts, No. 280.

3. The relative use of demonstratives. In *Arcadian* $\acute{\omicron}\pi\epsilon\rho$ is used for $\acute{\omicron}\sigma\pi\epsilon\rho$ in 1222₃₈: $\xi\sigma\tau\omega\ \delta\acute{\epsilon}\ \kappa\alpha\acute{\iota}\ \tau\omega\nu\acute{\iota}\ \tau\acute{\omega}\ \acute{\epsilon}\pi\acute{\iota}\zeta\alpha\mu\acute{\iota}\omega\ \acute{\omicron}\ \alpha\acute{\iota}\tau\acute{\omicron}\varsigma\ \acute{\iota}\gamma\gamma\upsilon\omicron\varsigma\ \acute{\omicron}\pi\epsilon\rho\ |\ \kappa\alpha\acute{\iota}\ \tau\acute{\omega}\ \acute{\epsilon}\rho\gamma\omega\ \eta\varsigma\ \acute{\iota}\nu\ \acute{\epsilon}\sigma\tau\epsilon\acute{\iota}\sigma\iota\nu$. With this compare the Homeric $\acute{\omicron}\ \pi\epsilon\rho\ \sigma\acute{\epsilon}\omicron\ \pi\omicron\lambda\lambda\acute{\omicron}\nu\ \acute{\alpha}\mu\acute{\epsilon}\acute{\iota}\omega\nu$ (VII, 114, XXI, 107), and the use of $\acute{\omicron}\tau\epsilon\acute{\iota}\varsigma$, III, 279.

¹ $\acute{\iota}\nu > \acute{\epsilon}\nu$ originally before consonants. $\acute{\epsilon}$ for $\acute{\epsilon}(\nu)$ is found, Roberts, No. 277, according to the generally received reading. $\pi\rho\omicron\sigma\theta\alpha\rho\epsilon$ must be read $\pi\rho\acute{\omicron}\sigma\theta\alpha[\delta]\acute{\epsilon}$. I cannot subscribe to Robert's defence of $\acute{\epsilon}(\mu)$ $\mu\alpha\nu\tau\acute{\iota}\nu\acute{\epsilon}\alpha\acute{\iota}$; cf. Allen, *Versification*, p. 150. Cyprian has no instance of $\acute{\epsilon}\nu$, and the Arcadian cases are not unimpeachable. $\acute{\epsilon}\nu$ in 1200 is poetical; in 1231 it is the work of a meddler with the original text; 1183 is probably Arcadian, though peculiar in many ways; No. 1233, a proxy decree, distinguishes $\acute{\epsilon}\nu$ from $\acute{\iota}\nu$.

² Cf. $\acute{\iota}\omicron\varsigma > \acute{\iota}\nu\varsigma$ and $\acute{\iota}\varsigma$ *cum accus.* in Oaxos. Merriam l. l. In Gortyna $\acute{\epsilon}\varsigma$ *cum genet.* and *accus.*

In *Cyprian*, δ for $\delta\varsigma$ in 60₁₂: η κέ σις Ὀνάσιλον ἐξ ὀρύξῃ, ἰδέ παι, δ ἐξ ὀρύξῃ, πείσει Ὀνασίλοι; and also 60₂₅. Arcadian has no example of δ alone used for $\delta\varsigma$. $\delta\tau\iota\eta$, 1222₂₇, is the masculine form from $\delta\tau\iota\varsigma$. $\tau\acute{o}$ is used as a relative, 1222_{14, 35}; $\tau\acute{\alpha}$ in Cyprian, 68₄. This breaking down of the old demonstrative force is found outside of Homer and these dialects, in Ionic (Herodotus), in the Attic poets, perhaps in the language of the common people of Attica (cf. C. I. A. II, 611₁₁), in Doric, Elean, Aeolic, Thessalian, Boeotian, etc.

4. The participle of $\epsilon\acute{\iota}\mu\acute{\iota}$. *Arcad.* ἐόντος, 1222₁₁. *Cypr.* ἐπιό(ν)-τα, 60_{9, 19}; ἰό(ν)τα, 60₂₈. ἐών is pan-Hellenic (Attic ὄν). Aeolic has both ἔων (Sappho 75 and on inscriptions) and ἔσσα (Sappho 75). Doric ἐών, Ahrens, II, 323.

5. Apocope of prepositions. *Arcad.*: πὰρ τάν, 1222₄₀; κάτ in κατάρ, 1222_{43, 50}. *Cypr.* καλέχες· κατέκεισο Πάφιοι. Pamph. καθῆδν, 1267₁₃. Aeolic καττά. Boeot. καττόν (κατά in late inscriptions). Thess. κατάρ. Heracleean πὰρ Πανδοσίαν, I, 58. Cretan παρδέχεται, C. I. G. 3050₂₁. Delphic κατ τάν and κατάν, Cauert², 204_{41 and 11}. Elean καδαλείτο.

6. $\eta\varsigma$ third sing. imperfect: $\langle \eta\sigma + \tau$. *Arcad.* 1222₃₇. *Cypr.* κεραμῖς $\eta\varsigma$, Berl. Phil. Wochens., 1884, p. 671. Corcyraean, I. G. A. 342₃. Sicilian (Epicharmus 73, Ahrens), Doric (Alcman in the Mss. frag. 24), Aeolic (in Theocritus, XXX, 16); cf. Boeot. παρῆς, 500₇. $\eta\eta$, whatever may be its origin, is certainly a later form.

7. η , by contraction of $\epsilon + \epsilon$ in the augment, after the expulsion of σ , ϕ , or $\gamma\omicron\delta$. Herein Doric, Arcado-Cyprian, and Aeolic, etc., are alike. Other vowel contractions are alike the possession of Arcado-Cyprian and of other dialects. *E.g.*:—

$\tilde{a} + \omega = \omega$, $\tilde{a} + o = \tilde{a}$ in all dialects except Ionic and in later North Greek. $\tilde{a} + o$, $\omega = \tilde{a}$, except in Attic-Ionic.¹ $\tilde{a} + \epsilon = \eta$ in Arcado-Cyprian probably,² in Doric, North Greek, and in Elean (?); = \tilde{a} in Aeolic, Boeotian, and Ionic. Johansson, De verbis derivatis contractis, p. 58, is doubtful about the Arcado-Cyprian contraction of $a + \epsilon$. He, however, suggests η . -εος from -εσος (nom. - $\eta\varsigma$) remains open in both dialects, and in Cyprian does not become -ιος. See p. 109.

8. ϵ for a in $\epsilon\acute{\rho}\omicron$. *Arcad.*: $\epsilon\acute{\rho}\omicron\omega\eta$, 1222₂₈; $\epsilon\acute{\rho}\omicron\omega$, 1231, C 13, etc.; with $\epsilon\acute{\rho}\omicron\eta\varsigma$ in 1235. *Cypr.*: $\epsilon\acute{\rho}\omicron\eta\varsigma$, 38₁; $\epsilon\acute{\rho}\omicron\eta\varsigma$, 33; $\epsilon\acute{\rho}\omicron\gamma\upsilon\gamma\alpha\nu$, 60₂₀, etc. $\epsilon\acute{\rho}\omicron$ obtains also in North Greek, Doric (Cretan, Laconian), Thessalian, Boeotian, Ionic-Attic, Homeric. The Aeolic $\epsilon\acute{\rho}\omicron\varsigma$.

¹ In Boeotian when $\tilde{a} + \omega$ contract, \tilde{a} is the result, e.g. τάν, otherwise -ων.

² But cf. Cyprian $\epsilon\gamma\alpha\sigma\theta\alpha\iota$ and $\epsilon\delta\acute{\iota}\tau\alpha$.

is either the descendant of *īēpos* or of **īēpos* < *isrōs*. The older form with *α* (cf. *ishirā*) is Arcadian,¹ Boeotian, Thessalian, Laconian, Heraclian, Messenian, Corcyraean, Cretan, and Theraean. Not only can we not hold with Brand, *De dialectis Aeolicis*, p. 14, that the *α* form is Doric solely, but we are even driven to admit that these words, which have long been held to be a criterion of dialect differentiation, are not entitled to this position from the early and wide-spread appearance of the form with *ε*. All necessity of assuming a "pan-Aeolic" *īēros* and a "pan-Doric" *īarōs*, crossing in the various sub-dialects, is obviated by the easy supposition that in the pre-dialectal stage of Greek both forms existed side by side.

9. Vocalization of *ϕ*, as in *Arcad. Φανίδας*, 1246, C 17; Φαύλλω, 1246, A 15;² cf. *φαίκα καλά* in Homer, as Hartel correctly reads. Cf. *Cypr. ἕσις*, *ναυ* in *Ναυφάμω*, Berl. Phil. Wochens., 1886, p. 1291, and in *ναυαρχος*, if Deecke and not Voigt is right. *Cypr. ναυ[άρχω]*, 160 (cf. 157), a title which is doubted by Voigt, B. B. IX, 171. *vāon* in No. 41. Other examples of the vocalized labial spirant are Boeot. *Ἀρχεναυίδας*, Coll. 413₁₀ (a Pellenian); *ὑρειγαλέον· διεργιώγος*; *Σαυγένεις*, 914, IV, A;³ Thessal. *Ἐρμαίου*, 1300; Laconian *Λαυαγήτα*, C. I. G. 1466; Aeolic, *ναῖος*, *φανόφοροι* (gramm.); Pamphyl. *φάβος* = *φάος*, Heraclides; *εὔιδε* (Balbilla), etc. Deecke reads *νευξάμενος*, 45, the *υ* of which Deecke and Ahrens compare with *ἐπί*. G. Meyer, *Gramm.*², § 239, seems to regard *υ* as having some connection with vocalized *ϕ*. Cf. Baunack's *Studien*, I, p. 16, 17, where *νευξάμενος* is read, and the explanation from I.E. *ud* offered. Quantitatively considered, the examples of *v > ϕ* are more frequent in the Aeolic than in the dialects connected with Aeolic, and more frequent in the latter than in Doric or Ionic.⁴ Curtius holds that *v > ϕ* is a proof of the connection of Cyprian with Thessalian and Boeotian (Kleine Schrif-

¹ Since *īarōs* occurs in 1235 alone, — an inscription in North Greek, — an Arcadian *īarōs* is uncertain. Bechtel remarks that this inscription is wholly North Greek, with the exception of *īarōs*. But this may point to a North Greek *-ης* for *-eus*; cf. above, p. 79. *īer-* occurs about thirteen times in Arcadian. *īar-* in Cyprian is doubtful, according to Meyer, *Gramm.*², § 94. But cf. *γαρά*, Hall *īarā*, 72; *Ἰαρώ(υ)δαν*, 118; *ιγαρώτατος*, 41. The last example, at least, is not a matter of dubitation.

² Cyprian here, *Φαρέω*, 133.

³ The *σαυ-* forms belong here only in case the explanation from *ao* be rejected; cf. page 65. Fuhrer and Spitzer agree in abandoning the explanation of G. Meyer, § 120 (from *ao*). But Attic *Λαυδικεύς* speaks in favor of G. Meyer.

⁴ Cf. Tudeer, *De digamma testimonia*, 68.

ten, II, 156) ; that this is too narrow a view is shown by the Doric *Λαναγήτα*.

10. Aeolic, Elean, Laconian, etc., may, together with Arcado-Cyprian, have preserved an open \bar{e} whose length, e.g. in contractions, appears as \bar{e} (η). The short e sound may have become closed at a very early period, as in the North Greek dialects (generally) in Thessalian, Boeotian, and Ionic. Again in the preservation of the open \bar{o} in its lengthened sound (ω = Ionic ou) these dialects agree. Boeotian here sides with Arcadian (but not in the accus. pl. < *ovs*) and with Cyprian (gen. - ω). Thessalian at an early date adopted the closed sound of the lengthened o .

11. *Arcad.* *Τηλίμαχος*, *Cypr.* *Τηλεφάνω*. Cf. Boeot. *Πειλοστροτίδας* (but also *Τειλεφάνειος*), Aeolic *πήλυι*, Delphic *Πηλεκλέας*. But there is no proof that the form with τ might not be Aeolic, as we have Aeolic *πέντε* as well as *πέμπων*. It is doubtless as much a matter of chance that we have no case of π followed by a dark vowel, which was the source of the later analogue *πήλυι*, as it is that *τηλ-* does not appear in Aeolic.

ARCADO-CYPRIAN, DORIC, AEOLIC, IONIC.

Loss of intervocalic i : *Arcad.* *ποιέντω*, 1222₉; *Cypr.* *Ἄθανα* (dat.), 62, through *Ἄθαναία*, which is Arcadian (1202), and *Ἄθαναα* (Alcaeus, 9); Cretan *ὑγιέα*; Locr. *ἀδελφεός*; Aeolic *Ὑμήναον*; Thess. *Γεννάοι*; Boeot. *Πλαταίος*; Elean *ἔα*, *συνέαν*; Ionic *κέεται*.

πέντε is the pan-Hellenic. Aeolic *πέμπτε* does not exist despite the assertion of the grammarians. See below, p. 106.

DIFFERENCE BETWEEN ARCADIAN AND CYPRIAN.

We have now exhausted the cases of agreement between Arcadian and Cyprian, and turn to a registration of their actual differences.

In order to present at a glance the dialect affinities of Arcadian and of Cyprian, in the following sections the differences between the two dialects will be so arranged as to give contributory evidence from all the other dialects with which either Arcadian or Cyprian may be in correspondence. Whenever an example of the phonetic law in question is found in either dialect, but as yet absent from the other, care has been taken to notice the fact.

I. ARCADIAN AND AEOLIC.

1. *o* for *a*.

δεκόταν, 1198; cf. Balbilla *δεκότω* (dat.), 323_b. The Aeolic inscriptions have *δέκατος* twice (as in Boeotian), once in an inscription dating from 16 B.C., once in one in the period between 2 B.C. and 14 A.D. Little can therefore be determined by epigraphic evidence whether or not that stadium of the dialect which was imitated by the court poetess of Hadrian had already assimilated the final syllables of *δέκατος* to *-κοντα*, producing *δέκοτος*. Cf. Ionic-Attic, Aeolic *εἴκοσι* from *-κοστος*. The analogy can scarcely have been felt to be operative in the time of Balbilla. It is certainly remarkable if the mere desire on her part to tinge her poems with an archaic flavor had resulted in the creation of form which actually appears in a dialect in many particulars akin to Aeolic.

There is no instance in the numerals of *o* for *a* in Cyprian. Despite *δεκόταν*, Arcadian holds with Boeotian *a* in *-κασιοι* (Boeot. *-κατιοι*).

NOTE.—On *o* for *a* in Arcad. *Ἐκοτόμβοια*, see p. 105.

2. Refusal to weaken *ε* to *ι* before vowels.

The Aeolic cases, except perhaps the gen. *γλύκιος*, are all capable of another explanation. A ground form *χρυσε-ιος* with accent on the ultimate (cf. *ἀφ(ε)νειός*) may produce *χρύσιος* through *χρυσ(ε)ιός*. The loss of intervocalic *ι* is amply attested for all Hellenic dialects. *γλύκιος* may perhaps represent a *γλυκε(ρ)ιός*. On Cyprian *ι < ε* before vowels, see p. 109.

2. The terminations *-αιοι* and *-αιοι* have sometimes been regarded Aeolic. The infrequency of their appearance in Homer in comparison with the growth of *-αις* and *-οις* is indicative of an obsolescent formation; their prevalence in Aeolic literature and inscriptions, and their sparse appearance in Ionic (except Herodotus) and in Attic seemed to point a form that, quantitatively considered, might be called Aeolic. Arcadian *Ἀλειοῖσι*, 1183, is the only example of *-αιοι* in this dialect. It has been supposed that No. 1183 was of Elean origin, but *-αιοι* offers no support to this belief, as the Elean form is invariably *-οις* or *-οιρ*. See Kirchhoff, *Alphabet*,⁴ 159. I regard *-αιοι* as pan-Hellenic, not Aeolic, and *Ἀλειοῖσι* as the sole survival in Arcadian of the locative case form, which in every Greek dialect gave place gradually to the instrumental *-οις > -οῖς*. *Ἀλειοῖσι* cannot be a loan formation, since *-οις* was the accepted form in every neighboring dia-

lect at the time of this inscription (about 400). With the exception of the form for Ξ the alphabet is pre-Ionic. With the realization of the fact that *-οισι* and *-οις* are totally distinct case-forms, the attempt to extirpate *-οισι* from Homer falls to the ground. *-οις* and *-οις* are the forms in Cyprian, Thessalian, and in Boeotian (except No. 744, *ξείνοισι*, an epic reminiscence). *-οισι* occurs in Doric only in poetry.

4. *ἡμίσοι*, 1222²⁵, with its *σσ* seems to recall Aeolic *ἴσσο-θείοισι*, 311¹⁵, of which the ground-form is found in Cretan *ϕ]ισφό-μοιρον* (Gortyn. X, 50) = Skt. *visu-*. It is preferable, however, to regard the form with *σσ* as pan-Hellenic, and sporadic in the Greek dialects. *ἡμισσον* occurs on a Chalcidian inscription, according to Dittenberger, *Hermes*, XVI, 173. Where there is but a single *σ*, this may also arise from *σϕ-*; and there is no need to assume a parallel stem, *ἡμσο-*. In North Greek we have *ἡμσος* in Phocis and in Delphi (Anecd. Delph. 38 (late)); *ἡμισσον* is, however, also Delphic; cf. Wescher-Foucart, 126¹³, 213¹¹. Aeolic *αἰμίσέων* (*sic*, and not *αἰμίσεων*), 213^{9, 11}. The Cyprian form of *ἴσος* is *ἔφεισος*, 68.

5. Traces of Aeolic *ψίλωσις* cannot be discovered. *Ἄλκίππω*, not *Ἄλχ*, since the spiritus asper of *ἵππος* is secondary. The same may be said of *Πλειστήτερος* from the older *ἱερός* (*ishirá*), despite *Ἡερόν*, 1257². Were any distinct traces present of the Arcadians having been *ψιλωτικοί*, as the Lesbians and Eleans, nothing would be proved as to their nearer connection, since even on the hypothesis of a North Aeolic dialect (Lesbian, Thess., Boeot.) the *ψίλωσις* of the Lesbians has to be referred to a period after the withdrawal of the Lesbic Aeolians.

II. ARCADIAN AND THESSALIAN.

In Arcadian we have *-νι* added to the demonstrative stem formation *ταν[ν]ί*, 1222²⁸. With this particle is connected the Thessalian *-νε* in *τόνε τοῦννεουν τοῖνεος*. This *νι* is a result of the abstraction of *ν + ι* (*ιδ*) from such cases as *τον-ί(δ)*, *ταν-ί(δ)*, *των-ί(δ)*; this *-νι* was then added to *τάν* (above). It is probable that Thessalian *-νε* is nothing more than this *-νι(δ)*, though no sufficient reason can be adduced for the substitution of *ε* for *ι*.¹ The Thessalians appear to have had a fondness for the *ε* sound; cf. *διέ* for *διά*, *βέλλεται* for *βούληται*. Reference has already been made (p. 68) to the *-ν* of Cyprian genitive singular (*ἀργύρων*) and to its possible connection with this *-νι* or *-νε*.

¹ Baunack, *Studien*, p. 56, and note, page 68 above.

The form *βέλλεται* renders apparent a tendency in each dialect to change *ται*, the personal ending of the middle, though the result is different. Arcad. -*τοῖ* (*ἰνδικάζητο*, 1222_α; *γένητο*, 1222_β; *τέτακτο*; 1222_α). Thessal. -*τει* (*βέλλεται*).

The treatment of vowel + nasal + *s* in the different dialects is so varied that it is impossible to construct any system that shall take as its starting-point the ground-form (e.g. *ανς*, *ονς*) and nevertheless make clear the difference, in the treatment of this ground-form, between dialects that are otherwise patently allied to each other. In no one particular do the so-called Aeolic dialects diverge more widely: —

	<u>ανς</u>	<u>ονς</u>
Aeolic	<i>παῖσα, ταῖς</i>	<i>μοῖσα, τοῖς</i>
Thessalian . . .	<i>πάνσα</i>	<i>ταγός</i>
	<i>ταμίας</i>	
Boeotian	<i>δραχμάς</i>	<i>ιώσας</i>
Arcadian	<i>ἐργωνήσας</i>	<i>τὸς ἐπισυνισταμένος</i>
	<i>δαρχμάς</i>	
Cyprian	<i>τάς</i>	<i>τῶς?</i>
Elean	<i>μναῖς μνᾶς πᾶσα</i>	<i>τοῖρ</i>
	<i>καταξίαιρ</i>	

The quantity of *-ας* in Thessalian and Arcadian is supposed to be short¹; in Boeotian, long. See Prellwitz, *De dialecto Thessalica*, p. 32, 33.

The Cyprian *το·σε·* is generally transcribed in Greek as *τῶς*, doubtless on the analogy of *ε·μι* as *ἡμί*, and from the assumed Doric character of compensatory lengthening in Cyprian. We have, however, no warrant for accepting *τῶς* to the prejudice of either *τό(ν)ς* or, more probably, *τός*. If the parent Arcadian had *τός*, it is difficult to see how the influence of neighboring Doric speech could have been so powerful as to have displaced so common a form. Deecke formerly wrote *τόνς* (*Curt. Stud.* VII, 1875), as Cauer, in *Wochens. für kl. Philol.* 1884, p. 99; but in his *Delectus*², *τός*. But an Arcadian prototype is not as authoritative a criterion as might be desired, from the fact that both *τός* and *κελεύωνσι* exist side by side, though the latter, however, is a later form.

The dialects of Argos and of Crete are extremely instructive as

¹ Brugmann, *Grundr.* § 205, Anm. 2, assumes that the *a* was long. At the period when *-ντι* became *-νσι* there was no possibility of the *ν* disappearing, since the movement which created *δαρχμάς* had spent itself.

regards the chronology of *-avs*, *-as*, *-ovs*, *-os*. In the older inscriptions of each dialect we find *-avs* and *-ovs*; ¹ in the later monuments, *-as* and *-os*. Hence any dialect which long preserved *vs* does not offer any trace of the influence of *v* when it disappeared at a comparatively late date in the development of the dialect. But in those dialects in which *v* vanished at an early date, compensatory lengthening serves to attest that early disappearance. Now were we certain of the Cyprian forms *ἴω(ν)σι* or *ἴωσι*, *ἕξ(ο)σι* or *ἕξωσι* (cf. p. 66), we might better compare Arcadian and Cyprian. If both preserved *νοι* (cf. Arcad. *κελεύωνσι*), the Arcadian and Cyprian forms would be *τός* and *τάς*, of which the former is actually preserved. Common usage, however, dictates Cyprian *τός*, the parallel to which would be *τάς*.

The Doric dialect with its *ās* and *ās*, *ωs* and *os* show that both forms may coexist in prose and in verse.³

A comparison of indisputable forms suggests that Arcadian finds its nearest parallel in Thessalian among the dialects nearer akin to Aeolic, and in Doric (Argos, Crete, etc.). No one has as yet, I believe, committed himself to the statement that Arcadian *τός* is a loan form from a Doric dialect in which *τόνς* was long preserved, but finally passed into *τός*.

NOTE 1.—The difference between the dialects in their treatment of *v* + secondary *σ* at the end and between vowels is briefly this: In Arcadia and Thessalia this *vs* is preserved intact. In a part of Crete and in Argos this *vs* is preserved intact, as also final *v* + *s*. In all other dialects the nasal sound is expelled, leaving *i* + *s* in Aeolic and in the rest *s* with preceding compensatory lengthening. But the relations of Arcadian and Cyprian are peculiar if the Cyprian form is in reality *τάς*, since, with *κελεύωνσι* and *τός*, we have all three forms. An Arcado-Cyprian *τός* and *κελεύωνσι* are reconcilable, but not an Arcado-Cyprian *κελεύωνσι* and *τός*. If, however, *ἴωσι* and *τός* are the Cyprian forms, Cyprian appears to have followed its own dictation, and there is no Arcado-Cyprian common form.

NOTE 2.—In *δέατοι* Arcadian has lost *ϕ*, as Thessalian in *ποτεδέετο*. Cf. Aeolic *δέω*; Attic *δείηται*, C. I. A. II, 167^{ab}, 48 (334–325 B.C.).

¹ This orthography may be merely a traditional representation of the ground-form; and *ās*, *ōs* may have been spoken.

² *ās* in Doric can be attested in poetry alone; *os* occurs in Crete, Thera, Cyrene, Cos, etc.

ARCADIAN AND BOEOTIAN.

There are no specific points of contact between Arcadian and Boeotian. Their joint correspondences are of little value for the purpose of proving any direct relationship.

1. Dat. = loc. in *-α*.

This is in reality pan-Hellenic, and has been assumed to be in use in Cyprian parallel to *ωι, ω*. See p. 73. Arcadian and Boeotian meet here solely in the fact that they have preserved a greater number of cases of *-α* than any other dialect. *-α* recurs in North Greek, later Elean, and Eretrian. In Doric and Attic-Ionic the *-α* forms are held in check by the regular dative in *-ωι*. Cf. p. 100.

2. Arcadian shares with Boeotian, but chiefly with Doric, the imperative ending *-ντω*. See p. 95.

3. Arcadian: *ἀν* in *ἀνᾶλώμασιν*, 1222₄₁; *ἀγκαρυσ[σόντω]*, 1222₁₉; *ἀνέθηκε*, 1225; *ἀνέθεν*, 1229.

ἀν does not occur alone, nor is *ἀνά* found.

The Cyprian form is *ὄν* in *ὄνέθηκε*, 72, 74, 75, 120; *ὄνέθηκεν*, Tamassus, Berl. Phil. Wochensch., 1886, p. 1323 (*ὕνέθηκε*, 45, is doubtful). Either the *κοινή* form *ἀνά* or the Doric *ἀν* appears in *ἀνέθηκε*, 17, 76.

Cyprian herein ranks with Aeolic: *δγκαρυσσέτω*, 304₈₇ (Aeolic has in later inscriptions the *κοινή* form); and with Thessalian:¹ *ὄν-γραφεί*, 361₁₁. Boeotian has the Doric *ἀν* and the *κοινή* *ἀνά*. Elean has *ἀνά* as Ionic-Attic. This variation of Arcadian from Cyprian is one of the most salient differences between the two dialects, which, especially in the form and use of the prepositions, have preserved intact their kinship to the latest times. It is certainly surprising that *ἀν* in Arcadian should be due to Doric influence, whereas *ἀπύ* and *ἔς*, *cum dativo*, have been preserved.

4. *ε* for the common *ο* in *Ἐρχομένοι*, 1212; cf. Boeot. *Ἐρχομενός*, the epicchoric name of the Boeotian and of the Arcadian city. This too has been held to be an example of the general fondness for *ερ* among dialects of Aeolic coloring. The interrelation of *ερ* and *ορ* in this and similar words (*e.g.* Boeot. *Τρεφία* and *Τροφία*) has not yet been clearly made out.

5. Arcadian and Boeotian stand nearer in the gen. sing. *Ἄ* decl. (Arcad. *-αυ*; Boeot. *-αο*, seldom *ᾶ*) than do Arcadian and Thessal.

¹ Thessaliotis and Histraeotis have *ἀνά*.

(ā) or Arcadian and Aeolic (ā). The traces of -ao in Cyprian are sporadic, cf. p. 65.

6. On Arcadian and Boeotian *θεᾶρός*, see p. 98. The Arcadian and Boeotian *a* in -*κασιόι*, -*κατιόι*, is a survival of the original form in *a* (see p. 99), and therefore no special mark of interrelation.

7. *ἔμπασιν*, 1234 (about 200 B.C.), an inscription almost entirely Hellenistic; *ἵνπασιν*, 1233; cf. Boeot. *ἔππασιν* about twenty-five times; *ἔπασιν* only 492¹⁰, 719⁸; Doric-Aeolic, *ἔγκησις*. Cf. also *Ἄριστοπάμων*, 1231^{c7}, 1248⁴⁸.

8. The Arcadian dialect displays the same variation in the form of the name of Dionysus as is observable in other dialects; *Διονυσίω*, 1203¹²; *Διωνύσιος*, 1246, A 4. Neither *Διόνυσος* or *Διώνυσος* appears on any Cyprian monument. It is impossible to discover any dialect affinities in the varying forms of the Attic *Διόνυσος*. *Ζώνυσος*, Lesb.; *Διόννυσος*, Thessal.; *Διοννυσίαν*, Cretan; *Διονυσόδωρος*, Lesb.; *Διονύσιος*, Thessal. Homer, *Διώνυσος* (except λ 325), which cannot be Doric, nor Ionic if compensatory lengthening from *σσν* took place, since Ionic never has *ω* for *ου*, nor ever had it, according to Johansson, p. 66. Pindar too has *Διόννυσος* once, Isth. VII, 5. Boeot., *Διόννυσος*; Elean, *Διονυσιακοῖς*; Heracl., *Διόννυσος*; Teos, *Διόννυσος*; Rhodes, *Διονυσιαστᾶν*; Aetol., *Διόννυσος*; *Διώννυσος* in Homer, Hesiod, Theognis, Pindar, the tragedians, Theocritus.

It is therefore probable that, as in the case of Poseidon, the Greek language possessed originally double forms of this name, to explain which has baffled all efforts. Solmsen, K. Z., XXIX, 39, objects with justice to Baunack's explanation from *δι-ονυχίος*, but fails to offer any more convincing suggestion than that *Διόννυσος* had an *σ* interposed from *Διός* by popular etymology.

With Boeotian (and with Laconian), Arcadian possesses the *α* diphthong in *Ποσοιδᾶνος*, Roberts, No. 276. Cf. Boeot. *Ποσοι[δ]ά[ι]χος*; Lac. *Ποοῖδαα*.

ARCADIAN, THESSALIAN, BOEOTIAN.

$\sqrt{\epsilon\iota\varsigma}$ from $\sqrt{\epsilon\tau\epsilon\varsigma}$ in *φιστίαν*, 1203¹⁸; Thessal. *Ἰοστυαίε[ι]ος*; Boeot. *Ἰοστυαῖδας*. This proves no necessary connection between these dialects, as the change of $\epsilon + \sigma + \text{cons.} + \iota$ to $\iota + \sigma + \text{cons.} + \iota$ occurs in Ionic, Locrian, Laconian, Cretan, and in Heracleian; and is not of very early date. It is so restricted geographically that it can scarcely be called pan-Hellenic. See Collitz in A. J. P., VII, 216.

The Attic *ἔστία* has not been imported into Aeolic (Coll. 215^{47, 48}) as has been assumed. In Attic *ἔστ-* is found upon the more ancient inscriptions. Cf. pp. 91, 109.

ARCADIAN, AEOVIC, THESSALIAN, BOEOTIAN.

Inflection of pure verbs according to the -μ class. *ζαμιόντες*, 1222⁵⁰; *ζαμῶ[σ]θω*, 1222²⁸, not *ζαμῖοσθω*; from **ζαμῖομι*, rather than from **ζαμιο + εσθω*; *ζαμιόντω*, 1222¹⁷ (cf. Johansson, p. 57); *ποίντω*, 1222⁹; *σ]τεφανώτω*, Le Bas, 331⁴⁵ (not in Collitz); *ἀδικήμενος*, 1222⁴; *ἀδικέντα*, 1222⁴; [*έλλαν*]οδικόντων, 1257¹¹. The *ew* inflection has, however, not been entirely superseded; cf. *διατελεῖ*, 1252. Aeol. *φιλήμενος*; Boeot. *ἀδικείμενος*, at least at the time of Aristophanes; cf. Ach. 884. There is no certain example of the "Aeolic" inflection in Cyprian. Cyprian *κατεφόρων*, 60, is explained by Deecke as coming from *καθορκέω*; by Johansson from *καταφορκώ*. This inflection obtains also in North Greek: Delphic, *ποιείμενος*; Locrian, *καλείμενος*; Elean, *κα(δ)δαλήμενος* (Pamphylian, *βωλήμενος*, may be from -α + *εμενος*). See A. J. P. VII, 441, where I have held that these forms cannot constitute a line of demarcation between different dialects. Johansson, *De derivatis verbis contractis*, p. 45, has shown that this so-called Aeolic inflection does not support any connection between North Greek and Thessal.-Lesb. He and Brugmann, *Gramm.*, § 118, explain these parallel forms to *ε-ο-μενος*, as originating from *ε-(ι)ε-μενος*; cf. Osthoff, *M. U. I*, 212.

The fondness for the strong form *ερ* appears in *ζέρεθρα*, *δέρεθρον*, *Ἐρίων*, derivations from *θέρσος*, e.g. *Arcad.* *Θερσίας*, 1224, 1231, B 13; *Θερσίλαος*, Paus. VIII, 32, 1. *Aeolic* *Θέρισπιπος*, 304. *Thessal.* *Θέροσων*, *Θέροσιος*, Paus. V, 9, 1; *Θέρισπιπος*. *Boeot.* *Θερόανδριχος*, etc.¹ Neither *θερσ-* nor *θαρσ-* (*θρασ-*) occurs on any Cyprian inscription hitherto discovered; but in derivatives of *κρέτος* Cyprian ranks with Arcadian in possessing both the strong and the weak form.² It is an important point that only in the earlier inscriptions of dialects connected with Aeolic, in which the *κοινή* dialect has not forced an entrance, does this strong form come to light. From Doric inscriptions it is practically absent.³ Quantitatively speaking, it is far more frequent

¹ Cf. Homeric *Ἀλιθέρης*.

² Cf. also Cyprian *ερ* or *ερ(α)*, ground form of *ἔρα*, *ῥά*, or *ἔρ*. *τέρχινια*, 69⁹, 19, 22 (cf. *τέρχινος*), appears also to have the strong form.

³ *θερσ-* in a few Spartan proper names. *θερσ-* rarely in Attic-Ionic; a Corcyraean *Θερσίλοχος*, Paus. 6, 13, 6.

in dialects of Aeolic coloring. The influence of Doric or Attic is seen in Arcadian in *Ἐρασέας*, 1231, C_{20, 30}, 1250; *Ἐράσιππος*, 1249₁₀; *Ἐρ]ασυμήδεος*, 1231, A 33; *Ἐράσων*, 1189, A 35. See p. 70 for *-κράτης*. In Thessalian *θαρσ-* is less, in Boeot. more, frequent than *θερσ-*. It is, perhaps, more advisable to assume the influence of contiguous cantons, rather than suppose that the force of case levelling, which produced Homeric *κάρτος* and *κράτος*, had been kept alive with such tenacity as, in the second century B.C., to generate the weak forms. It should, however, not be suppressed that older and younger forms might have existed side by side until the latter proved all-powerful. The long life of older formations is seen in *τριακάσιοι* = Doric *τριακατίοι*, whereas *a* has given place to *o* in Aeolic, Ionic, Attic, and, in fact, as early as the time of Homer.

NOTE. — *ἐπιζαρέω*, Arcadian, according to Eust. 909₂₇, is, however, also used by Euripides; cf. *βαρύς*. No strong form is in use.

The cases of retention of *ερ* should all be classed together, as Cyprian cannot be said to show any marked divergence here from the other dialects of the "Aeolic" type.

ARCADIAN AND IONIC.

αν may be either Doric or Ionic. It is certainly not Aeolic. It occurs in conjunction with *κέ* in Homer, and in Arcadian alone.¹

ει sixteen times in 1222, and in no other inscription. There is no trace of *αι*, which occurs in older Doric, Elean, Aeolic, Boet. (*ή*), Homer (*αι κε, αι γάρ, αιθε*). Is *αι* in Homer also Ionic? *ει* is Ionic and Attic, and often met with in later Doric inscriptions; once in Heracleian, I, 127. *αι : ει :: स्वाι*, Osc. : *σι < svei*, according to G. Meyer, § 113. For a discussion on *αι, ει*, and Cypr. *ή*, see above, p. 72.

Allusion has been made on pp. 89, 109 to the stem *ιστ* (*φιστ*) for *εστ*-, found in Arcadian, Homer, Herod., Thessalian, Boeotian, and Doric.

NOTE. — A curious mixture of Arcadian and Ionic is found in Cauer², No. 537; cf. Roehl, 532, 533; Fick., *Odyssee*, p. 10: *Μεσσή]μιος φοικέων ἐν Τεγέρη | [θεοῖς πᾶσι]ν καὶ θεαῖς πάσαις. . .*

¹ For an assumed possible case in Cyprian, see p. 72.

ARCADIAN AND DORIC.

Many of the instances of parallelism between Doric and Arcadian will, upon close examination, be found to consist of phenomena which are pan-Hellenic, or existing merely to a greater extent in Doric than in other dialects. As a large number of the phenomena of Arcadian has been claimed as Doric, I have thought it proper to discuss their assumed Doric character in the following sections.

1. Compensatory lengthening. *φθήρων*, 1222₁₇; *ἰγκεχηρήκοι*, 1222₁₂, from *ἰγλήρημι*, the Arcadian counterpart of Attic *ἐγχειρέω*; cf. *ἐκεχηρία* in Delphic, Cauer², 204_{48, 49}. *φθέραι*, 1222₈, and *φθήρων* stand in such irreconcilable contrast that it is probable the *ε* of the former is due to an orthographical slip, though as a rule No. 1222 is remarkably free from blunders. Another case where an error on the part of the engraver has been assumed is *διακωλύσει*. See p. 101 for a discussion of this form. *φθέραι* < **φθέρσαι* is supposed by Brand, p. 75, to have descended from a "pan-Aeolic" period, in which **φθέρσαι* existed, and in the same way as *κόρα* from *κόρφα*; cf. below, note 3. If *ρ + σ* was long retained, Brand maintains the expulsion of *σ* would be followed by no lengthening of the preceding vowel. *ρσ* (and *λσ*?) certainly did hold ground longer than did *νσ*, *μσ*. Thus, for example, *ἔκειρε* must be explained as an analogue to *ἔκτεινε*, and *ἔκερσε* as a survival of the pan-Hellenic period. As *ρσ* became *ρρ* at an early date in Aeolic (though it was preserved in Ionic and old Attic), and as there is not a single example of the simplification of this *ρρ*, no twisting will make *φθέραι* out of *φθέρραι*. Nor is there any instance of the direct expulsion of *σ* from *ρσ*. As *ρσ* is retained in the aorist in poetry alone, except in case of the Cyprian *ἔκερσε*, 31, 32, Thessalian *κόρα* offers no support to Brand's hypothesis.

Ἄμηνέας, 1242, and *Ἄμ]εινίαν*, 1231, A 38, are irreconcilable forms in one and the same dialect. Either one or the other form is a loan form or contains an error of the stone-cutter. If we collect the evidence from the other Greek dialects as to the character of the sound preceding the *ν* of *ἀμείνων*, it appears that there is testimony in favor of *ει* as a genuine and as a spurious diphthong. EI is written C. I. A., I, 324 c; 138₁; 446₃₄; 447₄₇; 40₁₂. In Roehl, 372₁₀ (Styra), 390 (Amorgos), EI also occurs. But Cyprian *Ἄμηνίγα*, 60₁₈, speaks in

favor of an Arcado-Cyprian **ἀμήνων*. On Boeotian inscriptions we find *Ἀμεινοκλείος*, 571; *Ἀμεινίαιο*, 571, and 807_{a,4}, appendix; *Ἀμει[νο]-κλείος*, 549₃, — all of the period of Ionic alphabet. But one form with EI antedates the introduction of the new alphabet: *Ἀ]μεινοκλείας*, 902. Of the twenty-five forms with *Ἀμν-*, but one (*Ἀμνοκλείς*, 914, III, 8) is written in the older alphabet, and but one in the transitional period (*Ἀμνάδαο*, 700₁₀). All the others are in the Ionic alphabet. Meister (Dial. I, 222) holds incorrectly that the forms in *ει* are from *η*, which arose by compensatory lengthening, thus failing to account for the EI of the old Attic alphabet.

In no period of the Greek language which is free from itacism (and Arcadian has but two examples — *πλήθι ἱράναι*¹ — of the itacistic stage) is there any interrelation between genuine *η* and genuine *ει*.² It is only in the age of Augustus that we find an *η* for *ει*, an *η* which is distinctly due to Latin influence.³ Nor does Cyprian, despite its *ρήπω*, change genuine *ει* to *η*, as Deecke maintains. See p. 115. It is nevertheless true that there are cases in which *η* and *ει* appear side by side, as in Arcadian, *Πλειστίερος*, 1181, A 30; *Πληστίερος*, 1249₁₁; *Πλείστ[ου]*, 1252₃ and *Π]λήστιαρχος*, 1249₅.⁴ Here the *ει* is undoubtedly as genuine as that of *ἀμείνων*. Cf. Roehl, 119₁₀, 532, 62 a Add.; C. I. A. I, 40₅₁, 55, 64 b₁₂. It is conceivable that by shifting, the *η* of **πλη-ίων* forced its entrance into the superlative *πλείστος* < **πλη-ιστός*, but in the case of *Ἀμηνέας* *Ἀμηνέγα*, there is no point of departure for an *η* to supplant the original *ει*. The difficulties in the way of explaining these irregular forms are enhanced by the fact that the etymology of *ἀμείνων* is still uncertain.⁵ Latin *mānus*, Sanscrit *samāna*, Lithuanic *aimieus* or *mainas*, have been tried and found wanting. The comparison of *melius* is certainly to be rejected. *amoenus* seems to explain the mutation vowel as EI, but its source is as obscure as that of the Greek word.

Doric procedure is also adopted in the unique *ἦναι* < *έσ + ναι*, 1222₁₀, 1233₂ [1257₃], with the spurious *η* of *ἦμεν*, which is Cretan, Heracleean, Elean, Boeot. (*εἶμεν* = *ἦμεν*), and also late Laconian.

¹ *ἦρηνα* or *ἦράνα* demanded by Spitzer, p. 34, are impossibilities.

² Thus *τέθεικα* is not from *τέθηκα*, but from analogy to *εἶκα*. *η* in *Ἐλήθουα* for *Ἐλείθουα* does not occur till the itacistic period. G. G. A., 1887, p. 442.

³ Meisterhans, p. 22.

⁴ *ΚΛΕτέας*, Roberts, No. 282 = Coll. 1200, is uncertain. For other forms in *πλει* — and *πλη* — cf. below, p. 115.

⁵ Meinck, De epenthesi graeca, 18–20, is unsatisfactory.

-*vai* belongs to Homeric, Attic, and Ionic, but in no instance to Doric. See p. 69.

NOTE 1. — If *ῥ-ναι* is not from **ῥοναι*, as seems probable, it may be a new formation from *ῥ-μεν*. This view is suggested by G. Meyer, and accepted with hesitation by Solmsen, K. Z., XXIX, 71.

NOTE 2. — Arcadian *ξενο-* is met with in the beginning of seventeen proper names and in *two* at the end. If Arcadian follows the laws of Doric compensatory lengthening, we should expect *ξηνο-*, or later *ξεινο-*, from a base *ξενφο-*, which occurs frequently in other dialects. In fact, as Doric has both *ξηνο-* and *ξενο-*, North Greek *ξεινο-* and *ξενο-*, Boeotian *ξεινο-*, we are either compelled to assume a double formation *ξενφο-* and *ξενο-*, or to hold that when *F* remained till a late period, it could disappear without leaving any trace of its former existence; but if the *F* of *νF* disappeared in certain dialects at a very early period, in certain words it produced either *νν* or compensatory lengthening of the preceding vowel. In poetry, however, the reduction of a geminated liquid or nasal may always ensue. Polybius, IV, 3, gives as a leader of the Aetolians *Δορῖμαχος* (cf. C. I. G. 941, Attic). But we find *Δορῖμαχος* in an Acarnanian inscription, Coll. 1389. Ahrens' views (II, 171) on this point must be modified. The Attic form may have arisen from *ξένφος*, it is true, but a Doric archetypal form *ξένφος* can never have resulted in *ξενο-*. Cyprian has no certain instance of any form of the word *ξένος*. In Hall, Rev. No. 10 (A. O. S., XI, 235), a very doubtful inscription is read either *Ἐκὼν & Ἐρωτι* or *τὰ ξένα Ἐρωτι* (*ἔρρο(ν)τι*), the character *ξε* having no middle stroke.

NOTE 3. — A similar violation of Doric laws of compensatory lengthening appears to exist in *Μελιχίωι*, Cauer,² 464; Brugmann (Gramm. § 137), and Cauer, *ad loc.*, hold that *φθέραι* and *Μελιχίωι* are to be explained alike. Though it can be shown that the regular procedure of Doric in adopting a purely quantitative change of the *α ε ο* sounds in compensatory lengthening and in contraction with themselves, is more frequently violated than is generally supposed, in this case the analogy of *Μελιχίωι* for Arcad. *φθέραι* is worthless. Wilamowitz has referred the inscription to Arcadia (Zeits. f. Gymnasialwesen, XXXI, 648), but this has not been adopted by Bechtel, doubtless on the ground that the dative in *-ωι* is contrary to the genius of the dialect.

As regards the possible unity between all the "Aeolic" dialects, it cannot be shown on the score of Arcadian possessing *ē* (i.e. *ē* open) that the Arcadians left the assumed common home before Lesbians, Thessalians, and Boeotians changed *ē* to *ē̄* (*ē* closed), since it cannot even be demonstrated that the three latter peoples did effect such a change either at one period or in the same place. Whether *σπέρρω* had become *σπήρω* (open *ē*) in the Doric dialects by the time that the Arcadians are held to have reached Arcadia in their supposed prehistoric immigration from the north, whether the Arcadians adopted this *σπήρω* instead of their traditional *σπέρρω*, or whether they themselves abandoned their *σπέρρω* of their own accord, can never be settled. It is probable, as far as the so-called Aeolic dialects are concerned, that they all possessed the form *σπέρρω* before their separation (assuming for the moment the breaking up of an original unity); whereas the Doric dialect before its division must have already accepted *σπήρω*.

2. Third plural imperative in *-ντω*.

The examples in question occur in 1222 alone: *διαγόντω*, l. 8;¹ *ποιέντω*, 9; *ζαμιόντω*, 17; *ἀγκαρσ[σόντω]*, 19; *ιναγόντω*, 19.

This termination of the imperative recurs in inscriptions of Laconia, Delphi, Messenia (Andania), and Rhodes. Cf. Boeot. *ὄπερδικιόνθω*, etc. The Lesbian termination is *-ντον* (*στείχοντον, κατάγρεντον*).

3. *δαμοργοί*, 1181₉, recalls the same form in Messenian (Cauer,² 47₁₁₉), Achaean (Cauer,² 274; C. I. G. 1542₁₃, 1543₂₁, 1567₃₂), Locrian (Coll. 1479, 1480), Megarian (Bull. de Corr. Hellen. IX, 269, and Cauer,² 104₁₉), which was written under the dominion of the Achaean league;³ and in inscriptions from Cnidus (Cauer,² 166, 167_{8,9}), Telos (Cauer,² 169), Rhodes (doubtful, as *δαμΟΥΓήσας* is found, Cauer,² 187, and *δαμουργήσας*, Foucart, Rev. Arch. XIV, 333, n. 59, Camirus).⁴ *δαμουργίσσασα* is met with in Pamphylian (Collitz, 1260 and 1261; cf. also *Ὀλόντιοι* in Cretan, C. I. G. 2554₃). While more abundant on Doric territory, the existence of the vowel shortening before two consonants in Ionic must free this Arcadism from the suspicion of being herein tinged with a Doric peculiarity. As a matter of fact, *δαμωργός* occurs in Doric,⁵ Locrian (according to Roehl, 322₁₅ = Coll. 1479, where Bechtel has *ο*), and in Elean (Roehl, 122₂ = Coll. 1170). Cauer has attempted, in the *Wochens. für klass. Phil.*, 1885, n. 26, to read *ζαμοργία* for *ζαμωργία* in Elean. The reading of Blass (No. 1152) is, however, not to be rejected; cf. also *Ὀπ]οντίων* (Roehl, 321), for *Ὀπωντίων*, Curt. Studien, III, 238.

NOTE.—The explanation of long vowel + sonant + consonant becoming short vowel + sonant + consonant is amply satisfactory (see Johansson, *De derivatis verbis contractis*, p. 20; Osthoff, *M. U. I.*, 238; Perfect, 84, 196, etc.), and distinctly preferable to the assumption of a karmadhāraya compound, **δαμ(ι)φοργός*.

4. Arcadian and Boeotian *άν* = *άνά*, as in Doric. Brand, *De dialectis Aeolicis*, p. 43, attributes the presence of *άν* in both these idioms to Doric influence. This cannot, however, be made out with any certainty. See p. 88.

¹ This form occurs I. G. A. 68, on the Laconian inscription from Tegea.

² Ahrens, I, 234, called the *ο* for *ω/ου* here a peculiarity of Achaean.

³ An Achaean magistrate is referred to.

⁴ Cauer restores *δαμοργός* in a much mutilated inscription from Argos (*Delectus*, No. 48).

⁵ *δαμουργός* in the so-called Doris Mitior, C. I. G. 1193.

5. Infinitive in *-εν*. *ἰμφαίνεν* (or *ἰμφαίνεν*), 1222²⁴; *ἐπηρειάζεν*, 1222⁴⁶; *ὑπάρχεν*, 1222⁵⁸. This form is not attested outside of Tegea. The Cyprian *ε·κε·νε·* is the subject of much dispute. Deecke reads *ἔχην*, Johansson *ἔχεν*, doubtless to establish an Arcado-Cyprian ground-form in *-εν*, which is very tempting. Until the question is definitely settled, I have not compared an Arcado-Cyprian *ἔχεν* with a Doric *ἔχεν*. This termination has come to light in Cretan, Heraclian, Theraean, and in Delphic, though Cauer,² 204, contains the only example in the last-named dialect. *ἀναγράφεν* in Locrian, Coll. 1508, is perhaps a slip. It will, however, be necessary to reconstruct our ideas as to the diffusion of this infinitive ending, which will have to be regarded as pan-Hellenic, if we can obtain an absolutely certain example of its appearance in Ionic. At present, however, *δφέιλεν* (Cauer,² 527 = Bechtel, *Ionische Inschriften*, No. 71) is the only example we possess. Bergmann, who first published the inscription, wrote *δφέιλεν*; Cauer, *δφέιλε(ι)ν*; Spitzer (p. 54), *ὠφέιλεν*. Bechtel places the inscription in the fourth century, on account of the use of E for the spurious diphthong, thus reading *δφέιλεν*. For a discussion of the origin of the infinitive *-ν* and *-εν*, see Johansson, p. 202.

6. It has been assumed that both Arcadian and Cyprian have ξ in the aorist of *-ζω* verbs. In proof thereof, Arcad. *παρετάξωνσι*, 1222²⁸ (from *παρετάζω*, according to Gelbke, p. 38, and not from *παρτάσσω*, as Bergk maintains) is adduced, together with Cyprian *ἐξ ὀρύξη*, 60¹². The latter form is referred by Curtius, *Verbum*,² II, 298, to *ἐξορίζω* and *ὄρφος*, and explained as the equivalent of Attic *ἐξορίσθη*. This explanation was adopted by Deecke and Sigismund (*Stud.* VII, 252); but Deecke has now retracted his former statement, and derived *ἐξ ὀρύξη*, as he writes the word, from *ὀρύττω*. *ὠρίσεν*, 126, *κατεσκεύασε*, 31, speak against a Doric ξ in Cyprian.

The peculiarity of the Doric dialects in their treatment of *-ζω* verbs is this: when *-ζω* arises from a non-guttural stem, Doric follows the analogy of the guttural stems, and has ξ in the future and aorist. But Ionic-Attic has σ even when the verbal stem ended in a guttural, thus following the analogy of the dental stems. *διαρπάξαις* in Aeolic (Coll. 281) is therefore a survival of the original formation, which even in Homer had yielded to the σ form (*ἦρπασε* by the side of *ἦρπαξε*); cf. Cauer, in *Sprachw. Abhand. hervorgeg. aus Curtius' Gramm. Gesellschaft*, p. 147.

NOTE. — The method of affecting compensatory lengthening, *ἄν* for *ἀνά*, and the presence of ξ in the aorist of a verb with ζ in the present stem, are the

only cases in Arcadian of contact between that dialect and those phenomena which have been held to be the characteristic marks of all the dialects of the Doric type, and to separate them from all others. There is no case of $-τι$, of the future in $-ιω$ or $-εω$, as in $πραξίω$ $πραξείς$, or of $-μες$ for $-μεν$.

In many cases where Doric influence has been assumed, the phenomenon in question is in reality originally pan-Hellenic, but in the course of time has come to be the possession of a limited number of dialects. Thus, for example, we find the dual in Arcadian, $φίλε$, 1242, $έλλαν$] $οδικόντων$, 1257¹¹.¹ See Fick, G. G. A., 1883, p. 120; Roberts, No. 285. The fact of the early disappearance of the dual from Aeolic is not to be urged against a possible relationship between Aeolic and Arcadian, in favor of a closer connection between Doric and Arcadian.

$Ἄπελλίων$, 1190, based upon $Ἄπέλλων$, suggests Doric influence. $Ἄπέλλων$ is ascribed to the Dorians by Herodian (II, 418, 25), and is found extensively upon Doric monuments (Crete, Laconia, Pamphylia, Megara, Syracuse); $Ἄπελλαῖος$ occurs in Crete, Heraclea, Delphi; Pamph. $Ἄπέλωνα$. Were it not, however, for the existence of parallel names in Tenos, Colophon, Chios, Teos, Naucratis (Gardner's Naucratis, I, plate XXXII, 104), this Arcadian $Ἄπελλίων$ might be held to be a loan form, especially as the Ionic, Attic, Aeolic, Boeotian, Cyprian (with the exception mentioned below) $Ἄπόλλων$ prevails in Arcadia. The existence at the same time in one and the same dialect of the mutation forms $Ἄπέλλων$ and $Ἄπόλλων$ shows that in the period antedating the division into dialects, both forms must have existed, and that either one or the other was preferred in different parts of Greece,² though not to the entire exclusion of the other. A third form, $Ἄπλων$, is found in Thessalian ($Ἄπλωνι$) alone (cf. p. 108); a fourth form, $Ἄπειλων$, from Cyprus (Deecke in Berl. Phil. Wochenschrift, 1886, p. 217), is also *sui generis*.

This remarkable form with $ει$, I have attempted to explain below, p. 115. On the name $Ἄπόλλων$, see Prellwitz in B. B., IX, 327 ff. I can see no reason whatsoever for adopting Schröder's etymology, whereby Vedic Saparyeṇya and $Ἄπέλλων$ are connected.

Spitzer holds that Arcadian follows Doric laws of contraction, but in most cases the result of the concurrence of vowels is not different in Doric from that in Aeolic, e.g. $\bar{a} + \omega = \bar{a}$ in $ἐργωνᾶν$; cf. $τᾶν μοί-$

¹ Cf. $δύο$ $ἔργα$, 1222²⁸. At best the dual has no strong hold in Doric; cf. Lac. $ἐπακόω$, I. G. A. 83; $ἐπάκοε$, 86, like $φίλε$ above ($δύε$ for $δύο$, I. G. A. 697).

² The Doric dialects held fast to the form which best represents the strong forms of the old inflection: nom. $Ἄπέλλων$, gen. $Ἄπέλλωνος$, voc. $Ἄπολλων$.

σαν in Aeolic. Ἐρμ[ἄνο]ς, Roberts, 276; cf. 251, Laconia, and on a bronze boar's head from Arcadia, now in Winterthur. νικῶν, Roberts, No. 280, is epic. In Boeotian, substantives still preserve the open form (δραχμάων), Thess. κοινάουν.¹ So ε + ε, η + ε, etc., are alike in Doric and in Aeolic. Medial $\bar{a} + o = \bar{a}^2$ as in κοινᾶνας, 1222₂₁; Aeolic $\bar{a} + o = \bar{a}o$ or ω or \bar{a} (Κρονιδᾶ, ἄς, Λαχάρης); = Doric \bar{a} . cf. p. 81.

Gelbke, p. 17, asserts that Arcadians and Boeotians agree with the Dorians in having \bar{a} where other dialects have ω . Of the examples quoted, Θεαρίδας, 1211_{2,4}, calls for attention. θεαρός prevails in Laconian, Cretan, Delphic, Aetolian, Elean (θεαροίρ), Boeotian, etc.; θεωρός in Ionic, Attic, and Aeolic. θεᾶρός is from *θεα + ορος*; θεωρός is from analogy to θυρωρός (Sappho, 98) > θυρᾶ + ορος, cf. θυραφορός, Deecke, B. B., IX, 251. Doric, Boeotian, and Aeolic, contract $\bar{a}o$ to \bar{a} , though Aeolic may leave $\bar{a}o$ uncontracted. So far, then, from sharing here any marked allegiance to Boeotian, the Arcadian Θεαρίδας fails to prove this assertion.

The ablaut form Ποσειδᾶνος, 1217, finds its parallel in Boeot. Ποται[δ]ᾶ[ίχως], 474₁₂, and in Laconian Ποσιδαία. The Aeolic form has the middle ablaut form *ει* (Ποσειδαν). The *αι* form is equally original. Collitz suggests (Verwandschaftsverhältnisse der gr. Dialekte, p. 14) that the Laconian name Ποσιδᾶν must have been borrowed from the Arcadians or from a people of similar dialect, since the genuine Spartan appellation of the sea-god in Sparta was Ποτιδᾶν or Ποτειδᾶν. Brand asserts the direct contrary: — that the Arcadians borrowed the Laconian form. But as the *σ* for *τ* is found on Doric territory (Ποσειδᾶν, Herodian, II, 916; Bull. de Corr. Hell. 1884, p. 355₂₄; Argolic Ποσιδᾶων, Cauer,² 58), it is possible that it is not necessary to have recourse to an Arcadian Ποσειδᾶν. The interchange of *τ* and *σ* is due to a levelling of the original relations: *τ + ι* became *σ* in the genitive and dative; whence *σ* before *ει* and *αι*, where *τ* originally belonged. Or the *τ* maintains its ground before *ει* and *αι*, and in turn supplants *σ* < *τ + ι*. From this we have Doric Ποτειδᾶν, Ποτιδᾶς, Ποσειδᾶν, Ποσιδᾶων, Prellwitz, B. B., IX, 331).

Circumscribed within the confines of no narrow dialect boundaries, though frequently allowed in Doric (Curt. Verb.² I, 75), are the past tenses in -ν of the non-thematic conjugation: as, ἀνέθεν = ἀνέθεσαν,

¹ Ἄλκμᾶν, 1181, B 24, is also Doric; cf. Ποτιδᾶν < $\bar{a} + o$. The Aeolic form represents the ante-contraction period.

² $\bar{a} + o$ as final sound = *αν* in Arcadian and Cyprian; = \bar{a} in a medial syllable.

1229, 1230, 1258. This formation appears in Homer, Hesiod, Simon. Ceos, Pindar, but is rare in the tragedians; in inscriptions we find it in Messenian, Argolic, Heracleean, Laconian, and Delphic. Boeot. *ἀνέθειαν* has a different personal ending (*αν(τ)*) from *ἀνέθειν* (*-ν(τ)*).

δέατοι, 1222¹⁰ (οἱ δὲ στραταγοὶ πόσοδομ ποέντω, εἰ κ' ἂν δέατοί σφεις πόλεμος . . .); 1222¹⁸, ὅσαι ἂν δέατοί σφεις ζαμίαι; 1222⁴⁶, εἰ δ' ἂν τις . . . ἐπηρειάζειν δέατοι ἰν τὰ ἔργα.

ἐπισυνίστατοι, 1222^{15, 16}, is another example of the same formation, which is pan-Hellenic (not from **δρα + η + ται*, etc.¹) and the original form of the subjunctives. Similar forms, illustrative of this primitive type of subjunctive before analogical influences had broken down their ancient structure, may be found in Curt. Verb.² II, 81; Johansson, *De verbis derivatis*, p. 69. Their geographical horizon embraces besides, Pindar, Pyth. IV, 92; Hipponax, 194; Hesiod, *Aspis*, 377; *Dreros*, *Cnossus*, *Gortyna*, *Thera*, *Calymnia*, *Andania* (five examples). It is thus a matter of chance that Doric seems to have been most tenacious of this ancient morphological heirloom. Certainly no connection of the Tegeans with Crete (*Paus. VIII*, 53, 4) can establish a connection of the Cretan with the Arcadian form. Nor is the Messenian form evidence of its existence in Sparta, whence Crete was colonized.

The peculiar form of the vocatives of *-εσ* stems calls for comment, as it is in direct contrast to the Aeolic scheme of inflection. *Ἀτέλη*, 1205; *Πολυκλή*, 1206: cf. *Ἀγαθοκλή*, 1243; cf. C. I. G. 1148, Argol. In the *Theogony* of Hesiod, we find *Κυπρογένη*. To what dialect, if to any specific one, this form of the vocative is to be referred, is uncertain. The Aeolic tendency to metaplastic inflection avoids recourse to the *Â* declension, preferring the *O* declension. Cf. *Σώκρατε*, *Ἀριστόφανε*, *Joh.*, *Gramm.*, 245; *Greg. Corinth*, 617; *Gram. Meerm*, 662. The analogy of *αἰναρέτης*, voc. *αἰναρέτη*, produced the vocative in *-η* instead of *-εσ*. Other examples of this vocative are *Σωσικλή*, C. I. G. 3114, Teos; *Ἀριστοκλή*, C. I. G. 1154, Argolis; *Διοκλή*, *Kaibel*, 299, Erythrae; *Δαμοκράτη*, K 949, Sparta; *Διομήδη*, K 1124, Pompeii; *Σωκράτη*, C. I. G. 1150, Argolis; *Ἐρμοκράτη*, *Mittheil. d. arch. Inst. VI*, 129; *Μενεκράτη*, C. I. G. 1153, Argol; *Ἐρμογένη*, C. I. G. 9689, Rome, etc.

τριακάσιοι, 1222⁸, has preserved the original *α* of the *-κάτιοι* of the Heracleean, Delphic, Boeotian, Laconian (*-κατίοι*), Elean ([*(π)*]εντακατίων), Pamphylian (*φίκατι*), etc., while it has permitted assibilation.

¹ *δέατοι* is subjunctive to *δέατο*, ζ 242. Cf. *δεάμην· ἐδοκίμαζον*.

The change of $\tau\iota$ to $\sigma\iota$ is, however, chiefly prevalent in those dialects (Aeolic, Ionic, Attic) which have substituted o for α through analogy to $-\kappa\omicron\nu\tau\alpha$. This form, then, is, as it were, the meeting-point of two series of dialects, Aeolic and Ionic-Attic. Arcadian $\tau\rho\iota\alpha\kappa\acute{\alpha}\sigma\iota\omicron\iota$ offers no proof of an original Aeolic dialect, which changed α to o through Ionic influence.

A few points calling for brief comment may now be added:—

$\lambda\epsilon\lambda\alpha\beta\eta\kappa\acute{\omega}\varsigma$, 1222₁₄ = Attic $\epsilon\lambda\alpha\phi\acute{\omega}\varsigma$, has been held to be a Dorism, since $\mu\epsilon\tau\alpha\lambda\epsilon\lambda\alpha\beta\eta\kappa\alpha$ occurs in Archimedes. See Ahrens, II, 347. $\lambda\epsilon\lambda\alpha\beta\eta\kappa\alpha$ is used, however, by Herodotus and by Eupolis.

$\acute{\alpha}\phi\epsilon\acute{\omega}\sigma\theta\omega$, 1222₁₄. $\acute{\alpha}\phi\acute{\epsilon}\omega\kappa\alpha$ ¹ is said by Suidas to be Doric (and Ionic). Herodian, II, 236₂, calls $\acute{\alpha}\phi\acute{\epsilon}\omega\kappa\alpha$ Doric. Cf. $\acute{\alpha}\nu\acute{\epsilon}\omega\sigma\theta\alpha\iota$, Tab. Heracl. I, 152, and Hdt. II, 165, $\acute{\alpha}\nu\acute{\epsilon}\omega\nu\tau\alpha\iota$, in Cod. F with ω of the strong form, as in $\acute{\alpha}\nu\acute{\epsilon}\omega\sigma\theta\alpha\iota$, $\acute{\alpha}\phi\acute{\epsilon}\omega\mu\alpha\iota$ (Herodian, II, 236). $\acute{\alpha}\phi\acute{\epsilon}\omega\kappa\alpha$, $\acute{\alpha}\phi\acute{\epsilon}\omega\mu\alpha\iota$ are called Attic by Et. Mag. 176, 51, and by Et. Gud. 96, 11. See Ahrens, II, 344.

It will scarcely be maintained that because $o\varsigma < o\nu\varsigma$ occurs in Arcadian and in Thessalian alone, of all the dialects that are in touch with Aeolic, that therefore Arcadian is tinged with Dorism. It is, on the other hand, probable that these dialects possessed $o\nu\varsigma$ in their earliest stage, and transformed it according to individual preference, some changing before others the open o before $\nu\varsigma$ to a closed sound. See above, p. 86.

Pan-Hellenic are the so-called datives in $-\omicron\iota$, in reality locatives, which have usurped the function of the allied case. *Arcadian*: $\xi\rho\gamma\omicron\iota$, 1222_{3, 49, 54}; $\chi\rho\acute{o}\nu\omicron\iota$, 1222₄₂; $\alpha\acute{\iota}\tau\omicron\iota$, 1222₂, 1233_{2, 6}; $\tau\omicron\iota$ in 1222 six times, 1256; $\pi\omicron\lambda\acute{\epsilon}\mu\omicron\iota$, 1233₅. In Arcadian there is no case of $\omega\iota$. The same displacement of the dative occurs in Boeotian, ($\acute{\delta}\acute{\alpha}\mu\omicron\iota$, $\acute{\delta}\acute{\alpha}\mu\omicron\varsigma$, $\acute{\delta}\acute{\alpha}\mu\nu$), in Phocian, Epirotic, Acarnanian, Aetolian (see A. J. P. VII, 431), and in Elean, $\acute{\delta}\acute{\alpha}\mu\omicron\iota$, 1153₇, 1156₄, 1159₈. Aeolic has ω , from $\omega\iota$, in inscriptions; Thessalian, $o\nu$, from $\omega(\iota)$. Cf. p. 73.

It is unsafe to conclude with Schrader, in Curt. Stud. X, p. 274, that the $\alpha\iota$ of $\phi\theta\acute{\epsilon}\rho\alpha\iota$ (cf. p. 92), 1222₈, is a proof of the Doric character of the dialect. $\phi\theta\acute{\epsilon}\rho\alpha\iota$ is preceded by $\delta\iota\alpha\kappa\omega\lambda\acute{\upsilon}\sigma\epsilon\iota$: $\epsilon\acute{\iota}\ \delta\acute{\epsilon}\ \pi\acute{o}\lambda\epsilon\mu\omicron\varsigma\ \delta\iota\alpha\kappa\omega\lambda\acute{\upsilon}\sigma\epsilon\iota\ \tau\iota\ \tau\acute{\omega}\nu\ \xi\rho\gamma\omega\nu\ .\ .\ .\ \acute{\eta}\ \tau\acute{\omega}\nu\ \acute{\eta}\rho\gamma\alpha\sigma\mu\acute{\epsilon}\nu\omega\nu\ \tau\iota\ \phi\theta\acute{\epsilon}\rho\alpha\iota$. $\delta\iota\alpha\kappa\omega\lambda\acute{\upsilon}\sigma\epsilon\iota$ has been taken as a future by Bergk (Commentatio, p. xv) and by Schrader; but I know of no law of Greek syntax with which such a construction is in accordance. If a future, it is due to a bad slip on

¹ From $\acute{\epsilon}\text{-}\omega\text{-}\alpha$, with ablaut of $\acute{\eta}$.

the part of the stone-cutter.¹ Gelbke thinks with Michaelis that ε has been omitted through the inadvertence of the stone-cutter. Reading *διακωλύσειε*, he compares *τύψειε*. We have already assumed that *φθέραι* contains an error (p. 92), and this observation is, perhaps, to be extended to the remarkable form *διακωλύσει*. As an optative, this form cannot be shown to exist in Aeolic or Doric. See Curt. Verb.² II, 293; G. Meyer, Gramm.² § 593. Brugmann has offered the only explanation of the form as it stands (Morph. Untersuch. III, p. 66). *κωλύσιαν* (cf. El. *ἀποτίσιαν*): *γράφειαν*: *κωλύσι*: **γραφει* (*i.e.* *διακωλύσει*). But there are patent defects to this, as also to Spitzer's assumption of a *sampṛāraṇa* of *ιε* to *ι* or of *ειε* to *ει* in Arcadian.

Arcadian *πρόσθα* (Coll. 1200; Roberts, 277) seems to be Doric, as Aeolic literature and inscriptions have only *-θε* and *-θεν*. Cf. Thessal. *ἔμπροσθεν*. But as *-θα* is cited as Aeolic by Joh. Alexandrinus (*τονικὰ παραγγέλματα*, 33₁₀), there is no doubt but that the *-θα* form is both Aeolic and Doric. Cf. Hom. *ὑπαιθα*, Fick, G. G. A., 1883, p. 120. Brand's conjecture, *πρόσθε*, is wide of the mark. There is no proof that "*θα* was changed to *θε* in a pan-Aeolic dialect."

Arcad. *μέστε* or *μέστα*, 1222₃₀ (*μέστ' ἂν ἀφῆ[τοι] τὰ ἔργα*). Cf. Cretan *μέστα* *κὰ ἃ κρίσις ἐπιτελεσθῆ*, Cauer,² 120₃₀; *μέττ' ἔς*, Gortyn, IX, 48. Homer has *μέσφα*. Thessalian *μέσποδι κε*, 345₁₃ = *ἔως ἂν*. Baunack (Studien, p. 23) attempts to explain *μέττες* (*sic*) as resulting from *μέχρι + ἔττε* < *ἔστε*, in the sense of *μέχρι εἰς ὄ*. He has, however, forgotten that in Thessalian the interrogative form of the pronoun is used, not for the simple, but for the compound, relative. Prellwitz, G. G. A., 1887, p. 438-441, explains *μεσ-* as *μετ + σ*; cf. *πός* < *ποτ + σ* (*μεσ-*: *μετά*: *ποτ*: *ποτί* and *πετά*).

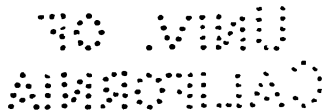
The change of *φ* and *π* in *Ἐλφούσιαι*, 1181 B 34, and *Ἐλποῖσιαι* on coins (cf. Paus. VIII, 25, 2) is probably purely local. *Ἐλφουσα* is Delphic (Wescher-Foucart, 464, 465); *Τέλφουσα* occurs in Polybius, II, 54, etc. Cf. G. Meyer, Gramm.² § 206.

ARCADIAN, DORIC, IONIC.

ῥφισ < *φες* in *φιστιάν*, see p. 89, where the Thessalian and Boeotian forms are also adduced.

The form *νίός* (No. 1183, before 403) is probably pan-Hellenic, as it appears in Homer (*νιέος*) and elsewhere chiefly in Doric inscrip-

¹ *ει* with the future in legal documents is foreign at least to Attic usage.



tions (Gortyn, *νίος*, IX, 40; Lacon. *νίος*, I. G. A. 54; Syracuse, *ύέεσοι*); but also in Attic *νύς* C. I. A., I, 398₄, fifth century B.C.¹ *νίος* appears, however, on one of the earliest Arcadian inscriptions, 1200₈ (450 B.C.), and in Cyprian *νιῶ*, 41. In Attic *νίος* is found in a poetical inscription as early as 527–510 B.C.

The *τρι-* of *Τρίτιος*, 1203₈, is Indo-European, as also the *τερ-* of Aeolic *τέρος* in *Τερτικώνειος* and *τέρτα ἢ τρίτη*; Boeotian *τρίτος*. *Τέταρος*, 1249₆; Doric, Ionic, Attic *τέταρτος* as Homeric (also *τέτρατος*); Aeolic, *τετραβαρήων*; Boeot. *πέταρος*. Nothing can be gained from any attempt at a separation of the dialects into those that have *αρ* and those that have *ρα* from *ερ*. Cf. Brugmann, Grundriss, § 292.

ARCADIAN, AEOLIC, DORIC, AND IONIC-ATTIC.

έσλός, 1200 (about 450 B.C.). Cf. Sappho, 28; Ionic, I. G. A. 382₁; Doric according to Greg. Corinth, 213; Ahrens, 112. Not attested in Cyprian.

Arcad. *έσδοκά*; Aeolic, Doric, *δέκομαι*; Attic, *δωροδόκος*, *πάνδοκος*. *δέχομαι* is from *δέξομαι*, as *βρέχω* from *βρέξω*. Not attested in Cyprian.

Dative in *-σι* preceded by a vowel (*-εσι*). Arcad. *έσδόεσι*, 1222₁₆; unattested in Cyprian. Homeric *έπάλλεσιν*, Attic, Cretan *πόλεσι*, all from assumed *-ε* stems.

PECULIARITIES OF ARCADIAN.

This section aims at collecting such Arcadisms as have not found entrance into the preceding paragraphs. In it are collected forms that have no precise parallel in other dialects as regard the word in question, or forms that embody phonetic changes occurring but rarely or even nowhere else in Hellas.

1. Fondness for the dental sonant as the representative of ζ before *ε*.

NOTE.—The Doric dialects generally prefer *δ* before an open vowel, e.g. Delphic, Tarentinian, Cretan, Megarian, *δδελός*; whereas Boeotian and Homeric (Aeolic?) have *δβελός*. Attic has *β* before both *ε* and *ο* (*δωβελία*, *δβελός*, C. I. A., IV, 3, c, 5, and *δβολός*). Arcadian stands alone in having both *δ* and *ζ* for *g*. It cannot be shown, however, that the rise of *δ* and *ζ* for *g* took place on Peloponnesian soil alone. There is no proof whatsoever of the assumption that Doric forced *δ* into Arcadian, and thereby expelled "Aeolic" *β*, or that Doric caused Cyprian *ζα*, *άζαθός*.

¹ The old inflection maintained its ground in Attic till 350 B.C.

δέρεθρον and ζέρεθρα = Attic βάραθρον, βάραθρα; Homeric βέρεθρον, ① 14, Aeolic according to Hinrichs, De Hom. eloc. vest. Aeol., p. 62. These forms are found nowhere outside of Arcadian. ἐπιζαρέω, Arcadian according to Eust. 909, 27, occurs also in Euripides. There is no case of ἐπιβάρω.

δέλλω and ζέλλω = βάλλω in Arcadian alone: ἐσδέλλοντες, 1222₄₉; ζέλλειν· βάλλειν; ἕζελεν· ἔβαλεν; κάζελε· κατέβαλε. The variation between δ and ζ in this and in the previous word indicates in all probability a μετάπτωσις within the confines of Arcadia.¹

The forms with ζ appear to be Tegean alone. This δ=ζ is different from δ = I.E. *d*. Before the separation into dialects Greek did not confound *gε-* and *δε-*. Cf. Cypr. σίς = τῖς, p. 117. The Arcadian ζ = δ is found only where the β form prevails in other dialects. Where a Cyprian ζ appears as a dialectic sound, it is the representative of γ in other dialects. There appears to be no connection between this ζ and that of Boeotian and Elean, whether or not the latter was = *th'*.

2. ρ for λ in Κραριῶται πολῖται, 1231 (for Κλαρεῶται by dissimulation, Brugmann, Grundriss, § 266; see Gelbke, p. 18; below, p. 109. Bechtel compares Attic ναυκρῶρος, which, however, is not connected according to G. Meyer, Curt. Stud. VII, 178. Cypr. Κλαριτά[ων?], 178, is probably connected with the river Κλάριος, near Soloi on Cyprus. The interchange of λ and ρ can scarcely be elevated into a distinguishing mark of agreement or difference between dialects.

3. δαρχμαί, 1222_{23, 30}, as in Elean; in other dialects, δραχμαί; δαρχ- is not older than δραχ-, as both are from ζ. Cf. τέταρτος, p. 102.

4. Gen. sing. Ἄ decl. fem. in -av from analogy to the masculine, which has -av in both Arcadian and Cyprian. ζαμίαν from *ζαμίᾱο, as Ἀπολλωνίδαυ; οικίαυ from *οικιᾱο (μιστίαυ), etc.; cf. p. 65. The fem. article is always τᾱς, there being no starting-point for a *ταῦ. See Leskien, Declination, p. 40; Osthoff, M. U., II, 128; Wilamowitz, Zeitsch. für Gym. Wesen., 1877, p. 13.

6. Dative sing. -ες stems. Arcadian has the younger form in πλήθι, 1222₂₀. Cf. also ἱράναι, the sole example, together with πλήθι, of itacism in the Arcadian inscriptions, which have εἰ for εἰ. Cyprian has εἰ: ἔλαι, 60₉; φέτει, 59₁. The contraction of ε(τ)ι to ῖ

¹ Cf. also πέζα for πέδα, according to Zenodotus both Doric and Arcadian. It is at best a doubtful form. The ζ of ζέλλω ζέρεθρα must be distinguished from Aeolic ζ = δι in ζᾱ, Sappho 87 (ζᾱθλος Alc. 18) and from the Cyprian ζ in κῶρζα = Aeolic κῶρζα for καρδία (also Aeolic, Sappho, II, 6).

is extremely rare in the Greek dialects. See my paper on *ει, ι, Α*. J. P. VI, No. 4.

7. Infinitive *ἦναι*, half-Doric, half-Ionic; see p. 69.

8. *σφεῖς*, 1222₁₀, accus. pl. (see passage quoted on p. 99). The form is certainly not Attic, since it is not used in a reflexive sense. All attempts to show the genesis of the form from **σφειες* by a contraction of *ιε* to *ι* are fruitless, until such a phonetic change is well attested for Greek.

9. *ἀπυδόας*, 1222₁₃, is a form that has baffled explanation. Curt. Verb.² II, 314, thinks it is for **ἀπο-δύ(σ)ας* from **ἔδοα*, after the pattern of *ἔκρη*, *ἔχουα*, *ἔπα*; and so Beermann, in Curt. Stud. IX, 78. Aorists without *σ* are found in inscriptions from Elis, Argos, Sparta, and in late Cyprian. Spitzer thinks *ἀποδοῶς* stands for **ἀπυδοαυς* < *ἀπυδοαντς*, comparing *τός* < *τόνς*.

NOTE. — Cyprian has apparently a modification of *ἴδω* in *διδάνοι*, if a different root is not at the base of this remarkable form. See p. 114.

10. *-δε* for *-δα* in *θύρδα* · *ἔξω* · *Ἀρκάδες*.

11. *-τοι* for *-ται*, perhaps from analogy to *-το*; cf. Thess. *-ται*, and p. 86.

12. *ἔφθορκώς*, 1222₁₀, contains the regular ablaut form of *ερ*, the *ορ* here not being the so-called Aeolic equivalent of *ρα* or *αρ*.¹ Curtius was the first to call special attention to the love of "dark" vowels in dialects connected with Aeolic (Bemerkungen zur gr. Dialektologie Gött. Nachr., 1862 = Kleine Schriften, pp. 156, 157). Since his time this has been held as a criterion of the connection of Boeotian (*Καλλίστροτος, πόρνοψ*), Thessalian (*στροταγέντος, κόρνοψ*), and Cyprian (*κόρζα = καρδία*). But it is probable that to this assumed mint-mark of Aeolism too much importance has been attached. Thus *τέτορθαι* and *μέμορθαι* contain, as does pan-Hellenic *ἔπορον*, the regular ablaut form of *ερ*.² *ἀστροπά* = Attic *στραπή* may contain the ablaut of *στερεπ*, etc. No investigation of sufficient thoroughness dealing with the dialect appearances of *ορ, ρο* : *αρ, ρα* has as yet been instituted from this point of view. If *ορ* or *ρο* is Aeolic for *αρ* or *ρα*, it cannot have been a phonetic change called into being by the operation of a law that necessitated an *ορ* or *ρο* in every weak form. Thus we have Cyprian *κόρζα*, but Aeolic *κάρζα* and *καρδίαν*. Or, if this be nevertheless maintained, the result is that Arcadian³ and Thessalian

¹ See Spitzer, p. 12.

² Brugmann, Grundriss, § 292, holds to their Aeolic character.

³ Neither *στρατο-* nor *στροτο-* is preserved in the Cyprian.

στρατο-, by the side of Aeolic *στροτάγω* and Boeotian *ἐστροτεύαθη*, must be explained as loan formations from Doric. Or the law must have been so overcome by forces of analogy, and at so early date, that it is no "law" at all. See Tarbell's paper on Phonetic Law, in the Transactions, Vol. XVII, p. 10.

NOTE. — That the dialects of non-Aeolic coloring present examples of *ορ* for the weak *αρ*, where the "Aeolic" dialects have *αρ*, e.g. Arcad. *γραφής*, shows that this assumed Aeolic peculiarity often fails at a critical point. Cf. Doric *τέτορες*; Meg. Argol. *γραφ-*; Arcad. *γραφής*.¹ Where *ορ* may be the regular strong form of *ερ*, then the "Aeolic" dialects fall into line. Only with the widest latitude may we assume that Aeolic in the strict sense, Thessalian, Boeotian, Arcadian, and Cyprian have a predilection for the "dark" vowel *ο*.

13. *ο* for *α* occurs also in *ἐκοτόν* in *Ἐκοτόμβοια*, 1222₂₃; *Ἐκοτόμβοια*, 1232₉. No other dialect except Arcadian has this form. *ἐκοτόν* is not to be regarded as an example of an "Aeolic" love of *ο* in place of *α*, since that conclusion rests upon a mere external comparison of the Arcadian and the common form. As *δεκόταν*, 1198, owes its *ο* to the *ο* of *-κοντα*, so, too, does *ἐκοτόν*. It is noticeable to observe the conflict of tendencies within the limits of a single dialect. *δεκόταν* and *ἐκοτόν* have both fallen under the sway of the frequently recurring *-κοντα*; yet *τριακάσιοι*, which stood in closer touch with *-κοντα*, has maintained its ancient vocalism, though Ionic, Attic, and Aeolic have permitted the corresponding word to be swept along with the current of analogy. Cf. Spitzer, p. 11.

We now pass to an attempt at displaying the points of divergence between Arcadian and Cyprian from the Cyprian point of view. It may be impossible to prove that in possessing a certain form, or in giving scope to a certain phonetic law, Cyprian may have deviated from the Arcado-Cyprian norm. The deviation may have been Arcadian, and not Cyprian. The age of the monuments is too late to permit us definitely to ascribe to Arcado-Cyprian a form which in Cyprian differs from Arcadian, and which is preserved upon an Arcadian inscription older than the Cyprian one in question. Furthermore, the paucity of materials in each dialect is singularly noticeable. At the present day we have but about nine hundred words preserved to us in Arcadian, and but

¹ Elean has both *γροφ-* and *γραφ-*, the latter more frequently. Cf. also El. *κοθάροι*, Locr. *περφοθαριάν*.

about five hundred in Cyprian, inscriptions. On the age of the few older Arcadian inscriptions, see Roberts, § 107. The wide universality of their interrelations with dialects of variant types is too great to permit conclusions as to the existence or non-existence of any given form in either of the dialects.

CYPRIAN AND AEOLIC.

1. μ for β in *κυμερήναι*, 68; cf. Et. Mag. 543₂; Et. Gud. 351₉. *κυβερνήτης*· ἀναλόγως οἱ Αἰολεῖς *κυμερήτην* λέγουσιν. *κυμερήναι* with Ionic -*ναι* (on Arcado-Cyprian Homeric -*ναι*, see p. 69) from **κυμερέω* or **κυμεράω*, parallel form to *κυβερνάω*.¹ Deecke (B. B., VI, 81) compares Cyprian *Τρεμβοῦς* from *τρέμβος* = *τερέβινθος*. This word and others (e.g. Aeolic *βάρμυτον* = *βάρβιτον*²), containing a supposed interchange of μ and β , are all uncertain. The certain interrelation of μ and β is, however, not confined solely to Cyprian and to Aeolic, as it comes to light in Rhodian *περιβολιβῶσαι* (Cauer,³ 176₁₀), and (chiefly) in Hesychian glosses (G. Meyer, Gramm.² § 180).

In *ἰρῶνι*, 60₈, we have the contraction of *ιε* to be observed in Aeolic *ἱρος* (if not, as is probable, from *ἰσρ-*, according to Osthoff, M. U., IV, 149). Cyprian has also *ιερός* and *ιαρός*, though the latter form is not so well attested. Arcadian, too, has both forms. A supposed contraction of *ιε* to *ῑ* in Aeolic and Cyprian has no bearing on an Arcado-Cyprian connection with Aeolic, since *ἱρός* is also Ionic (Homer, exclusively in Herodotean usage, Thasos, Cauer,³ 527₉).

Several points of supposed connection between Cyprian and Aeolic may here be briefly alluded to.

ἔκερσε, 32; cf. N 546, K 456, Aspis 419, and in Aeschylus. For a list of aorists with *ρσ* and *λσ*, see Curt. Verb.² II, 299. Similar formations in the future are called Aeolic by the grammarians (quoted Meister, Dialekte, I, p. 182) on account of their barytone character, but for no cogent reason whatever.

The Aeolic form is *πέντε*, not *πέμπε*, as has long been assumed (see Meister, in *Studia Nicolaitana*, p. 10). Neither the Cyprian

¹ Ground forms are (1) *ἔμτρ* = *κυμερ-*, *κυμερήναι*; (2) *ἔμτρ-* = *κυβρ-*, *κυβαρ-*. From *ἔμτρ* + *να* + *εν* = *κυβαρνᾶν*. *κυβερ-* received its *ερ* from *κυμερ-*. On -*τρ-* or -*μτ-* yielding -*βρ-*, -*βαρ-* (and not -*μβρ-*) in the middle of a word, see Johansson, *De derivatis verbis contractis*, p. 59.

² Quoted by Ahrens, I, p. 45, together with *κυμερήτης* as a doubtful example of an Aeolic change of β to μ .

πε(μ)φαιμέρων¹ (gen. sing.) nor the Alcaean πέμπων (33) presupposes πέμπε, since *πενq- stands before a dark vowel, as in Homeric πεμπώβολον. There is no need to correct Sappho's πεντεβόγη (frag. 98), or to regard any form with πεντ- as borrowed from the κοινή (πεντάμναιον, Coll. 276). πέντε is pan-Hellenic, and τ prevailed originally in all dialects before ε; later on, forms like πεντώβολος and πεντάς came into existence from a confusion with π- forms (πεμπάς, etc.), in the same manner as π in πέσσαρες, πείσει, took the place of τ.

Cyprian and Aeolic have ζ for δι- of other dialects, when the accent did not fall originally on the syllable with ζ. Aeolic ζά-, κάρζα; Paphian κόρζα; Arcadian διακωλύοι and δι- in every case.

CYPRIAN AND THESSALIAN.

A remarkable case of similarity between Cyprian and Thessalian is found in Cyprian, πείσει, 60^{12,25}; Thessal. πεισάτου = τεισάτω. Arcadian has here άπτειτέτω, 1222⁴³; άπττεισάτω, 1222³⁵; cf. ξστεισιν, 1222³⁷; Τείσανδρος, 1234; Τείσιμος, 1247; Τεισιμάχ[ω], 1247; as Locrian, Cretan, άποτείσει; Heracl. άποτεισεί; old Attic, άπο]τείσαι; Delphic, προτέτεικεν. The Cyprian and Thessalian form is later as regards the labial instead of the dental before ει, since π of πείσει was taken from that of ποιγή and *πέποιμα after the separation of Cyprian and Arcadian. The Thessalian form only proves that a similar phonetic leveling can take place in two dialects without the influence of one upon the other. Thessalian πεισάτου came into existence after all immediate connection between Thessalian and Aeolic or Boeotian had ceased. It is absurd with Brand (p. 62) to postulate a pan-Aeolic πει-, or to assume a pan-Aeolic preference for labial sounds where the older dialects have dentals or gutturals.

A further example of parallelism between the dialects in the field of palatal sounds is doubtful: Thessal. κίς = τίς, but κέ = τέ in Cyprian is open to grave suspicion. See Deecke in Bezzenger's Beiträge, VIII, 153; Brugmann in Techmer's Zeitschrift für allg. Sprachw., I, 233.

No immediate connection between Cyprian and Thessalian can be maintained on the score of the accusatives, ά(ν)δριγά(ν)ταν, 59; ίγα-τῆραν, 60³. The Larissaeen inscription, 1332⁴⁰, has κίοναν from κίων. This analogical formation on the lines of the \hat{A} declension occurs in Cratylus, 404 B, Δήμητραν (Schanz, Δήμητρα), and in the epigraphic

¹ So Deecke; G. Meyer, πε(μ)πόμερων.

forms in Kaibel: *πατέραν*, 372; *μητέρα*, 522; *λιμένα*, 168 Thessaly; *νεότηταν*, 368; *πατρίδα*, 920; *άνδρα*, C. I. G. 1781, Thessaly. According to Franz, *άνδρειάνταν*, according to Kaibel (No. 406), *άνδρειάντ*. Cf. Sturz, *De dialecto Macedonica*, p. 127. The Cyprian forms quoted above are in general older than those adduced from Kaibel and the Corpus according to Wagner (*Quaest. de epigram.*, p. 107).

Ahrens (*Philol.* XXXV, 13) and Neubauer (*Comm. phil. in honor. Mommseni* p. 280), are in error in regarding Thessalian and Cyprian on a plane in the possession of the rarer form of the name of Apollo. See above, p. 97. Thessalian **Απλου* (= **Απλων*) is certain, but **Από(λ)ων* is in every case the Cyprian form according to the transcribers, though the other form is not impossible. See Bezenberger's *Beiträge*, IX, 328.

Curtius held that the Cyprians and Thessalians changed *ω* to *ου*. Of the examples that he quotes, **Απλου* does not exist in Cyprian, and *έρουά* = *έρωή* (cf. *άλουά* · *κήπη* = Hom. *άλωή*) cannot be regarded as an example of that *ου* which in Thessalian has supplanted every case of *ω*. *ω* in the Cyprian inscriptions never becomes *ου*.

CYPRIAN, AEOLIC, THESSALIAN.

Infinitive in *-ην*.

The Cyprian form *ε·κε·νε*, 60₁₀, has been differently transcribed. The *-εν* of Arcadian has led some to claim that the Cyprian form is *έχεν*, and hence of Doric coloring; but Deecke now writes *έχηην*. *-ην* is exceedingly frequent in Aeolic even in the aorist passive, and in the Pharsalian idiom we have *έχειν*, which is for *έχηην*. Thess. *ει* = *η*. The other divisions of Thessaly have *-μεν*. The Elean form is likewise *-ην*, according to Blass, *Coll.* 1153, 1156.

όν = *άνά* has already been referred to, p. 88.

CYPRIAN AND BOEOTIAN.

The genitive in *-άο* (Homeric and Boeotian) is exceptional in Cyprian, e.g. *Κυπραγόραο*, 79; *Δαγατίσαο*, 58. Arcadian and Cyprian have generally *-ου*. Forms like *Σωκλείδα* in Boeotian are very rare, as in Cypr., cf. *Άμηνίγα*, 60₁₈.

**Υφι*, 124, from **Υείς* (or **Υής*?). This agrees with the Boeot. ending *ευ < ηι* (e.g. *Φωκεύ*). *ηι* from *ην* stems is Homeric, Ionic, Attic, Doric *-ει*, and never *ηι*.

Cyprian, Boeotian, (and Doric) proper names in $-i\bar{a}s$ for $-e\bar{a}s$ are not infrequent. A certain explanation of their interrelation has, however, not yet been given.

CYPRIAN, AEOLIC, AND BOEOTIAN.

$\alpha + \epsilon = \eta$ in Doric, North Greek, and perhaps in Elean. In Cyprian, Aeolic, Boeotian, and Ionic, the result of the contraction is \bar{a} . Johansson, p. 58, is doubtful whether there was not an Arcado-Cyprian contraction of $\alpha + \epsilon$ to η . We have no certain example in Arcadian. Johansson explains $\epsilon\delta\iota\pi\alpha$, Coll. 49, by the suggestion that Cyprian, after its separation from Arcadian, may have adopted vowel contractions different from those prevalent in the Arcado-Cyprian period. $\iota\bar{a}\sigma\theta\alpha\iota$, 60₃, is also cited by Johansson as a possible example of the later contraction. But neither Johansson nor Spitzer has any right to suppose *a priori* that Arcadian would agree with Doric in contracting $\alpha + \epsilon$ to η . Furthermore, Hall, Rev. A. O. S., XI, 217, says that Deecke's transcription of No. 49 is nearly all wrong. He himself reads . . . *pa·ti·sa·to·ro*.

$\epsilon\phi$ - occurs in Cyprian, Aeolic (gramm.), Boeotian, and in Elean. It does not appear on any Doric monument.

CYPRIAN, BOEOTIAN, THESSALIAN.

Arcadian and Elean do not change ϵ to ι before vowels, though $\epsilon\nu$ + consonant has become $\iota\nu$.¹ In Cyprian the change is well attested: $\acute{\alpha}\tau\epsilon\lambda\acute{\iota}\gamma\alpha$, 60₂₃; $\iota\acute{o}(\nu)\tau\alpha$, 60₂₈; $\epsilon\pi\acute{\iota}(\nu)\tau\alpha$, 60₁₉; $\kappa\alpha\tau\acute{\epsilon}\theta\iota\gamma\alpha\nu$, 60₂₇; $\theta\iota\omega\phi$, 37 ($\theta\epsilon\omega\phi$, 27). In fact, every ϵ before α or o becomes ι , except when ϕ has disappeared between ϵ and o , e.g. $\iota\epsilon\rho\acute{\epsilon}o\varsigma$, or where $-\epsilon o\varsigma$ is from $\epsilon(\sigma)o\varsigma$, nom. $-\eta\varsigma$, e.g. $\tau\iota\mu\omicron\kappa\lambda\acute{\epsilon}\phi\epsilon o\varsigma$ and in $\tau\iota\mu\omicron\kappa\rho\acute{\epsilon}\tau\epsilon o\varsigma$, $\Phi\iota\lambda\omicron\kappa\rho\acute{\epsilon}\tau\epsilon o\varsigma$, Berl. Phil. Wochenschr., 1886, p. 1291. $\kappa\alpha\tau\acute{\epsilon}\theta\iota\sigma\alpha\nu$ in No. 20, if for $*\kappa\alpha\tau\acute{\epsilon}\theta\epsilon\sigma\alpha\nu$, would offer the sole exception to the rule that ϵ becomes ι in Cyprian only before a vowel.² Deecke's reading, which he himself finds remarkable on account of the preservation of the intervocalic σ (Zweiter Nachtrag in B. B., VIII), must therefore yield

¹ $\kappa\rho\alpha\rho\iota\omega\tau\alpha\iota$, 1231, B 35, etc., is referred by Gelbke, p. 18, to Doric influence. Instances of ϵ are $\acute{\epsilon}\acute{o}\nu\tau\omicron\varsigma$, 1222₁₁; $\acute{\alpha}\nu\tau\iota\phi\acute{\alpha}\epsilon o\varsigma$, 1231, C 7; $\xi\epsilon\nu\omicron\phi\acute{\alpha}\nu\epsilon o\varsigma$, 1231, C 21; $\xi\epsilon\nu\omicron\kappa\rho\acute{\alpha}\tau\epsilon o\varsigma$, 1248₅. $\acute{\alpha}\gamma\alpha\theta\iota\alpha\varsigma$ by the side of $\acute{\alpha}\gamma\alpha\sigma\acute{\epsilon}\alpha\varsigma$ is of course not a case of change of ϵ to ι .

² $\phi\iota\sigma\tau\iota\alpha\nu$, Arcad. 1203₁₈, seems to offer some contradiction. But $\epsilon + \varsigma + \text{cons.}$ may become ι in all dialects. Lesbian and Attic alone have $\acute{\epsilon}\sigma\tau\iota\alpha$; Hom., Ion., Locr., Boeot., Cret., Heracl., have $\iota\sigma\tau$.

to *κατέθιγαν*, as the sign *sa*· is not far removed from that for *ya*· Johansson (*Några ord*, etc., p. 31) assumes *κατέθιγαν* < *κατέθιαν* < *κατέθισαν*.

The Cyprian dialect in its substitution of *ι* for *ε* before a vowel is on a plane with Boeotian (the chief seat of the change), Thessalian (except in the inscription from Larissa), and with Doric to a limited degree, viz., especially in *-εω* verbs, *θεός*, *κλέος*, *πλέων*, forms of *-εσ* stems, etc. (Laconian, Messenian, Cretan, Argolic, Heracleian). In Aeolic the supposed change of *ε* to *ι* is limited to words like *χρύσιος*, *χάλκιος*, *μαρμάριος*, which lend themselves to a different explanation as regards the *ι*, and in the gen. *γλύκιος*; cf. p. 84.

The difference in the treatment of antevocalic *ε* is one of the most noticeable mint-marks distinguishing Arcadian from Cyprian. The Arcadian type has remained true to an Arcado-Cyprian preservation of antevocalic *ε*. The *ι* for *ε* must in any theory of a pan-Aeolic dialect be regarded as subsequent to the separation into sub-dialects. Wherever the substitution of *ι* for *ε* occurs, it is to be regarded as the effect of a tendency obtaining to a greater or less degree throughout Greece, and is merely more prevalent in the dialects of the "Aeolic" type. Even in old Attic we have *Αἰνῶται*, *Αἰλιῶται*. In Ionic the change is expressed by *ει* (*εἰαντόν*, *ἐννεῖα*). In Boeotian and Ionic-Attic the *ε* remained a closed *ε*: Boeot. *ε*, *ει*, *ι*; Ionic-Attic, *ε*, *ει*.

CYPRIAN, AEOLIC, THESSALIAN, BOEOTIAN.

Absence of *ν* *ἐφελκυστικόν* from all prose non-κοινή inscriptions is the only feature common to these four dialects.¹ The Arcadian dialect has [*ἀνέ*]θηκε[*ν*], according to Bechtel (No. 1218); *ἀνέ*[*θ*]ηκεν in an epigram (Roberts, No. 280) is an epic reminiscence. All other cases of this verbal form occur at the end of the inscriptions and have no *-ν*. *ἔδοξεν* (1183_{1,6} = Roberts, 283) is the only certain case of *ν* in a verbal form, and that in the inscription containing 'Αλειώσι (p. 84). Roberts, p. 281, holds that Alea is referred to. No. 1183, it should be remarked, was found at Olympia, but Elean has no paragogic *ν*. *-ν* in *ἀναλώμασιν μή*, 1222₄₁, is the only example in noun formations in Arcadian.

Whether the presence of *-ν* in these two forms is to be ascribed to Laconian influence is doubtful. In the oldest Spartan inscriptions it

¹ A recently discovered Cyprian example is: *ἔστασε Ἄριστος*, Berl. Phil. Wochens., 1886, p. 1291. But the Tarmassus inscription has *ἔδωκεν, ὀνέθηκεν*, the only examples in Cyprian; l. 1., 1886, p. 1323.

is not present, but as it is frequent in those of later date, and in the Heracleian tablets, the possibility of Doric influence here cannot be authoritatively denied.

CYPRIAN, IONIC-ATTIC.

There is no case of η for \bar{a} , except, perhaps, *Ἰαλεφήμω*, Hall, Rev. A. O. S., XI, 234.

πρωτωτίμω contains the contraction of $o + a$ to ω . Aeolic examples of *πρώτος* are now generally ascribed to the influence of Hellenistic scribes or stone-cutters. Neither *πρώτος* nor *πράτος* occurs in Arcadian. The latter form is that to be expected.

Ἄμύ(ν)τω, 41, and *Εὐμαγόρω*, 153, 154 (410-374 B.C.), are referred by Meyer, Gramm.² § 345, to Ionic influence. This is, perhaps, better than to regard them as drawn over to the O declension in the same fashion as Homeric *ἦύκομος* from *κόμη*, and *ἔϋμμελίω* from *μελία*. Cf. Fick, *Odyssee*, p. 325.

On $a + \epsilon = \bar{a}$ in Cyprian, see above, p. 81, and on $-\eta$ in $-\eta$ -stems, see above, p. 108.

Cyprian *ῶτε*, *ῶτε* as in Ionic-Attic. Aeolic *ῶτα*, Doric *πόκα*, Elean *τόκα*, Pamphyl. *ῶκα*, Abu-Simb. *ῶκα*. We do not know whether Arcadian *μεστ'* is for *μέστα* or *μέστε*. Brand's assumption (p. 34) that the Cyprian forms in *τε* are descended from a pan-Aeolic *τα* is certainly wide of the mark, as they represent the original *-γε*. The Aeolic *τα* is itself later than either *-τε* or *-κα*.

ἀρούραι, 60₂₀ (*α' ρο·υ·ρα·ι'*), implies the existence of a genuine diphthong *ου*; and this is assumed by Fick (*Odyssee*, p. 324); cf. Leo Meyer, Gramm.² p. 674. But if we compare *ἀρο[ρ]η*, I. G. A. 497, b. 17 (Teos), the parallel forms to Ionic *ἀρούρη* in Doric and Aeolic would be *ἀρώρα*¹ and *ἄρορα*. It must be confessed that the etymology of *ἀρούρα* is too uncertain to permit the statement that we have here a loan form from Ionic. *ῶρα* as extracted from *ἔσῶρα·σπισθεν*, which is claimed by Rothe to be Paphian (for *οὔρα, tail*), has a very shadowy existence. To further complicate matters, we have a Milesian *ῶρή = οὔρα* (*Revue archéol.*, 1874, p. 100). *ἀρούρ[as]* occurs on a Thessalian inscription, Coll. No. 371. Rutherford, Phrynichus, p. 14, incorrectly calls *ἀρούρα* for *γῆ* old Ionic and poetic. See A. J. P. VIII, 469.

With the frequent names in *ῶνα-* (*ῶναίων, ῶνασις, ῶνάσιλος*, etc.), cf. the Ionic *ὀνήσιτος* (*ὀναιον·ἄρειον*).

¹ *ἀρωραῖοι*, Acharnians, 762, was expelled by Ahrens, who adopted the reading of the Rav., *ἀρουραῖοι*.

CYPRIAN AND DORIC.

1. Compensatory lengthening in *τῶς* (but see p. 86) and in *ἡμί* in twenty cases; in one of these, No. 93, Voigt reads *ἕμ(μ)ι Σηθικῆ*, following Neubauer's transcription. The transcribers, however, have generally decided against the Aeolic and Thessalian form; and Hall, *Rev. A. O. S.*, XI, 228, accepts *ἡμί* here as elsewhere.

2. Contraction of *εο* to *ω* in *Νωμηνίων* = *Νουμηνίου*, cf. *νεροστάτας*, 59₂ (*Berl. Phil. Wochens.*, 1886, p. 1323), and in *σπέως*, 31, 32, if Deecke's reading be correct. I would prefer *σπήως*, from **σπέρεσος*. *ω < εο* is found on Doric soil in Cretan monuments alone: *παρακαλώμενα, εὐχαριτώμενες*. *εο* in Aeolic = *εο, ευ*, (Ionic influence?) never *ω*. *ε + ο* in Arcado-Cyprian remain uncontracted in gen. sing. of *-ῆς* stems. *ε* remains before *ο* and *ω* in Arcadian in *Κλεονόμω, Θεοτέλεος*.

3. The Doric genitive in *ā* (if the *α* does not, as Deecke claims, represent *αν*) is found in *Ἀμηνίγα*, 60₁₈, *Ἄνασιμάλα*, 120. The *Ζωτία* of Deecke, No. 77, is read by Hall, *Ζωτή[ς]*. *Ζωτία* occurs, No. 122, apparently as a genitive. *Ἀριστίγα*, *Berl. Phil. Wochens.*, 1886, p. 1643.

4. On Cyprian *ποῖ*, see p. 67.

5. Expulsion of secondary, intervocalic *σ* is foreign to Arcadian, but occurs in Cyprian, Laconian, Elean, and Argolic. The examples are *διμῶϊς*, 69 = *διμούσους* and *φρονέωϊ*, 68, which should be *φρονίωϊ*, or, at least in certain parts of the island (Chytrea), *φρονίωϊ*. The subjunctive is here used without *κέ* (*ᾶν* does not occur), as in Homer and elsewhere in relative sentences. This is the first epigraphic example of the secondary loss of *σ*, a phenomenon attested by Hesychian glosses, *ἱμαδὸν· πάταξον, ἱμπάταδὸν· ἕμβλεψον*, etc. (M. Schmidt, in *K. Z.*, IX, 367). In all other cases, intervocalic *σ* is preserved intact in Cyprian: *κατέστασε, λύσαι, λύση*. Cf. Laconian *ἐποίηέ*, I. G. A. 80, Elean *ποιήσσαι = ποιήσασθαι*, Argolic *ἐποίηέ*, I. G. A. 42. The Cyprian forms without the *σ* are only apparent survivals of the period in which *σ* disappeared regularly between vowels in the aorist, and not, as Osthoff maintains, a residuum of that period. See Müller, *De Σ inter vocales posita*, pp. 80, 81. In his *Kleine Schriften*, II, 152, Curtius suggests that the loss of *σ* in Laconian is due to dialect mixture.

CYPRIAN-AEOLIC, DORIC, IONIC, ATTIC.

-ην is accusative of -ες stems: ἀτελήν, 60₁₀. This analogical phenomenon, though not occurring in every dialect in Greece, is sufficiently general to be recognized as a universal feature of Greek morphology. As a rule, the influence of the \hat{A} declension makes itself apparent only in the later period of the development of the language, though it comes to light as early as the time of Homer (ζαῆν or ζάνν). Attic Σωκράτην, Ionic Λυσικλήν, Cretan Ἱεροκλήν, Boeot. Διογένειν, Aeolic δαμοτέλην.¹ Arcadian has no similar metaplastic accusative. Wagner, Quaest. gramm. de epigrammatis, pp. 107, 108, has collected the examples from Kaibel's Epigrammata, embracing forms from Halicarnassus, Sardis, Athens, and Thebes. Tauromenium and Pamphylia have -ην in the adjectival flexion.

PECULIARITIES OF CYPRIAN.

In this section a list of some of the chief peculiarities of the Cyprian epigraphic forms has been attempted, and explanations given when possible. Rothe's Quaestiones de Cypriorum dialecto et vetere et recentiore has never progressed beyond a partial examination of the vowel relations of the Cyprian glosses.

I. Vowels.

ἐρ in Hesychian glosses: κατ' ἐρ' ἔλει· κάθισαι, Πάφιοι· κατ' ἐρ' ἔλει· κατέζου. κατ' ἐρ' ἔλει· ἐκαθίζετο.² G. Meyer, Gramm.² § 55, regards ἐρ (without the apostrophe) as the strong form of ἄρα, ἄρ, ῥά. Spitzer, pp. 7, 8, holds that ἐρα may be a contamination of *ἐρ and ἄρα. Cf. Bloomfield, A. J. P., VI, 44 ff.; Brugmann, Berichte der Sächsisch. Gesell. der Wissensch., 1883, p. 37 ff. With this strong form compare -κρέτης and p. 90. This gloss is apparently derived from a text of Homer in vogue in Cyprus (probably not ἡ Κυπρία). On the Arcadian form ἄρ or ἄρ', see Roberts, No. 277, and above, p. 80.

In τέρχνηα, 60_{9, 18-19, 22} compared with τρέχνος and τέρχνεα (Hesychius), we have an instance of metathesis without vowel-lengthening that appears to be restricted to no particular dialect. If ταρχάνιον·

¹ Analogy of \hat{A} stems: Genitive -ου in Attic, Delphic, Cnidos, Thasos, Scyros, etc.; gen. in η in Aeolic alone. Dat. η in Aeolic. Voc. in η, Arcadian, p. 99.

² Curtius held ἐρ to be Arcadian. But I find this unattested.

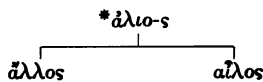
ἐντάφιον and τέρχνα· ἐντάφια (besides φυτὰ νέα) do not contain a confusion of two separate words, τέρχνα is another example of the Cyprian fondness for ερ.

In Σελαμνί[ων, 176, 177, and Berl. Phil. Wochenschr., 1886, p. 1291, compared with Σαλαμίνιος, 148, we have an interchange of ε and α which cannot be controlled by any known parallels in Cyprian. Deecke suggests that Σελ- recalls the Assyrian form of the name of the city of Silhimi, and is evidence in favor of Semetic influence (Josephus mentions a Σελαμίν in Galilaea). But Dr. Hall has suggested to me that the ε may be an orthographical slip. Its appearance is too extensive to assume this with certainty. In any case, it is unwise to deduce from its appearance any such far-reaching conclusion as that of Deecke.

The relation of ω to υ in δυράνοι, 60₈ = διδοίη, is not established. δόκοι occurs 60₁₆. δυράνοι shows that the υ from υ υ had not become extinct; Brugmann, Grundriss, § 166. Cf. also Chalc. Γαρυφόνης. On the assumed change of ω to ου in Cyprian, see p. 108. Rothe, p. 72, finds no certain case of ω for υ in the glosses.

αἴλων (= ἄλων), 60₁₄; cf. Arcad. ἄλλοις and ἄλλος in all other Greek dialects. αἰλότερον· ἀλλοίτροπον occurs in Hesychius, who, however, names no source. In Et. Mag. 34₁₀, for αἴλα, ἀντὶ τοῦ κατὰ Κύπριοι, read ἀντὶ τοῦ ἄλλα.

An Elean αἴλος cannot be upheld, since in ΑΙΑΟΤΡΙΑ, 1154₂ (an exceedingly corrupt inscription) I is, according to Blass, *entweder zu streichen (Roehl) oder in Δ zu corrigieren (die Inschrift hat freilich keine Verdoppelung)*. ἄλλουρ occurs in Elean, 1172; cf. τᾶλλα, 1152. Cyprian seems here to have bifurcated from Arcadian in choosing a form that preserves, though in the tonic syllable, the ζ, which was the cause of the geminated liquid of every other dialect. But instead of the genealogical tree commonly adopted and vigorously defended by Meinck, De epenthesis graeca, p. 41,



we must assume that the original Cyprian form was not different from the Arcadian, and that αἴλ is merely a secondary development from αλλ. See Spitzer, p. 34, and Weinhold, Alleman. gram., 138; Baier. gram., p. 183.¹ Cases of mouillization which might be adduced

¹ It would at least be extremely hazardous to deny on the score of this form alone that ἄλλος was formed from ἄλιος before the separation of the parent Greek

from the Romance languages (Fr. *ail*, It. *aglio* > *allium*; *merveille*, *meraviglia* > *mirabilia*; *meilleur*, *migliore* > *meliorem*) are only apparent parallels, the presence of *i* after *l* being necessary in order that it be drawn into the tonic syllable. In the dialect of Crete, *λ* before a consonant was pronounced as *ℓ*, and as such is represented by *υ*; cf. *αἰκά* = *ἀλκή*, *θεύγω* = *θέλγω*. It is therefore not impossible that a somewhat similar affection may have formed an *αἰλος*, which cannot then be regarded as an example of epenthesis.

It should not be suppressed that Brand (De dialectis Aeolicis, p. 50) has attempted on the strength of *αἰλος* and *αἰλότρυα* to formulate the law *a ante liquidam positum non in a longum sed in a pro-duxisse*. This cannot be accepted, nor can his explanation that *χαίρω*, *μέλαινα* result from compensatory lengthening, and not from epenthesis.

av in **ἀμαύω* in *Νοσταμαύσα*[*ντος*], Deecke, B. B., IX, 251; cf. *ἀμεύω*, *ἀμευσίπορος*.

φήπω μέγα in 68 is regarded as an aorist, not as a present by Deecke, who translates: *Ein grosses will ich verkunden*. Hall, in his review of Deecke's collection (A. O. S., XI, 220), holds to the present: *I speak a great thing*. Deecke (Bezz. Beitr., VI, 79) rejects Ahrens' *φήπω*, and maintains that *η* for *ει* is regular in Cyprian. I cannot regard this as correct. *είπον* has the genuine diphthong *ει*, and as such is written with EI on pre-Euclidian Attic inscriptions (Meisterhans, p. 79) and on the monuments of other dialects (Smyth, Diphthong EI, pp. 57, 60).¹ The *ει* is therefore not the result of contraction (*έφέρεπον*), but from *ε + ι* (*έφέρεϊπον*). Priscian's (I, 54) so-called Aeolic *ἦπον* is a blunder for *ἦπον*, because the absence of *ι* *ἀνεκφώνητον* was regarded by the grammarians as a peculiarity of Aeolic (Meister., I, 71). Now there can be no question that in no period except the Itacistic was genuine *ει* confounded with *η* > *ε + ε* in any Greek dialect;² and that in Cyprian this should have been into dialects. In Greek, epenthesis took place before the dialect period. The Cyprian *Ἀπέλωμι* is, I conjecture, to be explained in like fashion with *αἰλος*. That this is the only possible explanation for the *ει* form, occurred to me before reading Deecke's similar suggestion in the Berliner Philol. Wochenschrift, 1886, p. 217.

¹ On the Gortynian inscription, we have *προφειπάτω*, etc.

² This must hold good despite Arcado-Cyprian *ἀμην-* (Arcad. *Ἀμηνέας*; Cyp. *Ἀμηνία*: cf. Amorg. *Ἀμείνον[ι]*, I. G. A. 390). Arcadian *Πληστοίερος Πλειστοίερος*. C. I. G. has no case of *Πληστ-* except *Πληστονείκα*, 1506 (Sparta), with the ominous *ex schedis Fourmonti*: *Πλειστονίκης*, 1363, 1364 b, 2810 b, add., 2813. Cf. above, p. 93. Cyp. *ἦ*, "if," has been explained above, p. 72, as either = *ἦ(υ)* or as a separate form. It is not a Cyprian form of *ει*.

the case is incredible, and is in fact disproved by the diphthongal orthography $\rho\epsilon\cdot i\cdot\sigma\epsilon\cdot i = \pi\acute{\epsilon}\iota\sigma\epsilon\iota$. Spurious $\epsilon\iota$ became diphthongal in Attica about 380 B.C., but there is no proof that the sound resulting from the contraction of $\epsilon + \epsilon$ (admitting for the moment that $\acute{\epsilon}\rho\acute{\epsilon}\rho\epsilon\pi\omicron\nu$, or even $\rho\acute{\epsilon}\rho\epsilon\pi\omicron\nu$, was the source of $\acute{\epsilon}\iota\pi\omicron\nu$) — a sound different from that of the Attic spurious $\epsilon\iota$ — ever became diphthongal in Cyprian.

In every case $\epsilon\iota$ remains a genuine diphthong: $\alpha\acute{\iota}\rho\acute{\epsilon}\iota$, $\acute{\epsilon}\rho\acute{\epsilon}\iota\sigma\eta\varsigma$, $\acute{\epsilon}\lambda\epsilon\iota$, $\acute{\epsilon}\tau\epsilon\iota$, $\rho\acute{\epsilon}\tau\epsilon\iota$, $\acute{\epsilon}\upsilon\zeta\alpha\rho\acute{\epsilon}\upsilon\tau\epsilon$, $\rho\acute{\epsilon}\iota\kappa\acute{\omicron}\nu\alpha$, $\pi\acute{\epsilon}\iota\sigma\epsilon\iota$.¹ In Arcadian genuine $\epsilon\iota$ remains except in $\pi\lambda\acute{\eta}\theta\iota$, $\iota\rho\acute{\alpha}\nu\alpha\iota$. This shows, to my thinking, that whatever we may think of the characters $\upsilon\epsilon\cdot\rho\omicron$, and however much we may be inclined to ascribe the η of $\rho\acute{\eta}\pi\omega$ to an irresolute orthography, a Cyprian change of genuine $\epsilon\iota$ to η is not regular. Allusion has already been made above, p. 68, to the difficulties in the way of a satisfactory explanation of $\pi\acute{\omicron}\tau\iota$, "lord," in the same line; and as regards the hexameters, which Deecke insists on to the discomfiture of Ahrens' $\rho\acute{\epsilon}\pi\omega$, Hall remarks that they are not clear according to his more certain transliteration, the characters having gradually become plainer since the time the stone was exhumed.

II. Consonants.

ζ for γ in $\acute{\alpha}\zeta\alpha\theta\acute{\alpha}\iota$, 37, 59, and in $\zeta\acute{\alpha}\iota = \gamma\acute{\alpha}\iota$; cf. Arcad. $\gamma\acute{\alpha}\upsilon$, Doric $\delta\acute{\alpha}$, Et. Mag. 60₈. The γ in the latter word is probably palatal, cf. Zend $\bar{z}\acute{\alpha}o$, Lith. $\bar{z}\acute{e}m\acute{e}$, Slav. $zemlja$, K. Z., XXV, 146. Johansson in B. B. XIII, 117, has resurrected the old etymology, — Goth. *gods*. The substitution of ζ for γ in $\acute{\alpha}\zeta\alpha\theta\acute{\omicron}\varsigma$ may stand in connection with the spirant pronunciation of γ prevalent from the second century B.C. This, though exceedingly doubtful, is better than to regard the ζ as originating in like manner with the palatal spirants of the Aryan and Slavo-Lettic languages. See K. Z., XXV, 150.

NOTE 1. — Cyp. $\kappa\alpha\lambda\acute{\eta}\zeta\omega$ is not necessarily a proof that ζ is a representative of *god*.

NOTE 2. — $\acute{\iota}$ between vowels was thickened to γ , or at least could be represented by γ in $\theta\acute{\epsilon}\lambda\gamma\omicron\nu$ = Ionic $\theta\epsilon\lambda\iota\omicron\nu$. Cf. Heracl. $\pi\omicron\tau\iota\kappa\lambda\acute{\alpha}\gamma\omega\sigma\alpha$.

In all dialects there was heard a parasitic glide sound between ι and a following vowel.² This sound assumes graphic expression, with the exception of Pamphylian, in Cyprian alone, but even there with

¹ $\rho\epsilon\lambda\epsilon\delta\acute{\alpha}\mu\omega$, 117, is uncertain.

² In Boeotian $\acute{\alpha}\nu\theta\epsilon\iota\alpha\nu$, $\epsilon\iota$ represents a closed ϵ , and not $\epsilon + \acute{\iota}$, a distinct glide sound. On the development of intervocalic ι in several dialects, e.g. Attic $\theta\epsilon\iota\omicron\upsilon\acute{\iota}\nu$, $\epsilon\acute{\iota}\acute{\alpha}\nu$, etc., cf. above, p. 110.

no great consistency. Thus in the inscriptions from Dali it is found fifteen times, of which thirteen occur in No. 60,¹ two in No. 59.² It is not written in Γολγίαι in 61, nor in ἐπί(ν)τα, 60_{9,19,22}; ἰό(ν)τα, 60₂₈; πανώνιον, 60₁₀; πανωνίω, 60₂₂: nor in Κετίων, 59; Κετίερες, 60₁; ἄ(ν)-δριά(ν)ταν, Berl. Phil. Wochenschr., 1886, p. 1323; elsewhere always with γ. From *Chytréa* we have no *γod* in Παφίας Παφίαι, 1, 4, 5, 6, 9, 10, 12, following Hall's corrections, nor any in ἱερῆρος in No. 1. *Kerynia* has both Παφίγας, 15, and Παφίας, 16; *Palaeachora*, Στασίγαν, 17, Στασίγας, 18, and no example of the omission; *Polis-tis-Chrysochou*, Ἀριστίγαν, 20, Berl. Phil. Wochenschr., 1886, p. 1643; and κατέθιγαν, 20 (see p. 109); but Νασιώταν and Ὀναίων, 21 (for which Baunack reads Ὀναίων). *Drimu* has Ἰολάω(?), 26; *Ktima*, ἱερός, 33; *Kúklia*, ἱερεῖς, 40; ἱερός, 39; ἱερώτατος and δσέγας, 41; but δεξίωι, 37, and ἱερός, 38. *Golgoi*, Διαίθεμι, 74 (cf. Διφείθεμι, 60₂₁); Παφίγαν, 69; but Διάθεμι, 100; Διός, 73; εἰφεργεσίας, 71; φλακινίω and Ἀφροδισίω, 86; Θεμίαν, 66, in Greek letters; Ὀνασίωρο, 75; Ἰαρό(ν)δαν, 118. *Abydos*, Σαλαμίσιος, 148; *Pyla*, Μαγυρίω, 120, 121 (Hall).

In the above-cited examples *γod* appears twenty-two times, and only four times before ε, seventeen times before α,³ once before ι, and never before any other sound. In the other examples of the occurrences of *γod*, α follows in almost every instance: Σκύγαρος, 33; Ἄγαρος, 31 (= Ἄϊρος?), *Ktima*; Διαγατίσασο or Δαϊτίσασο, 58, *Lamaka*; Θεστγας?, 119, *Golgoi*; Διαγαφᾶς, 31, 32 (= Δαϊφᾶς?), δαγᾶι, 41, *Kúklia*; θέγας, 94, *Golgoi*; before η in φύγη, 126. And yet despite its fondness for α, *γod* not infrequently disappears before that sound even in those parts of Cyprus where it is commonly written.

The period of accurate distinction between the spirants ζ and ν in Cyprian is that of the Persian supremacy over Cyprus. Later on, during the rule of Alexander's successors, the greatest confusion prevails, e.g. Πρώτιφος, Τιμοχάριφος, Κυπροκράτιφος, ἱερέγιγαν, βασιλῆφος, φῶρω = Ὀρω, Διαίθεμι, and Διφείθεμι.

σι for τι in σί βόλε· τί θέλεις Κύπριοι, and in κέ σις, 60_{10,28} (nom. masc. σί τε for σίς τε, 126, is not certain). Cf. also ὄπισις κε (= ὄστις ἄν), 60₂₉, where τ = σ between vowels. In the accus. neuter τι, 68₃ (after a consonant), assibilation does not take place. Cyprian σίς is

¹ Ἄλα(μ)πριγᾶται, Ἀμηνίγας, ἀνοσίγας, φέπιγας, ἱερέγιγαν, ἱγᾶσθαι, ἱγατήραν, Μαλανίγας, πεδίγαι, τέρχνιγας (thrice), πτόλιγι.

² ἄ(ν)δριά(ν)ταν, Μιλκινιάθωνος.

³ Διφείθεμι is interesting; but cf. Διαίθεμι.

the only exception in Greek to the law that initial τ does not suffer assibilation. Arcadian, Aeolic, and those dialects that change τ to σ , change only that τ which is the Hellenic representative of Indo-European t . Cyprian $\sigma\acute{\iota}\varsigma$ contains $\tau =$ I.E. g . But the exception as regards the initial τ never becoming σ is an apparent exception merely, since $\sigma\acute{\iota}\varsigma$ is an enclitic. The interrogative $\sigma\acute{\iota}$ is to be explained by analogy to $\sigma\iota\varsigma$.

NOTE.—On $\pi\acute{\omicron}\tau\iota$, vocative of $*\pi\acute{\omicron}\tau\iota\varsigma = \pi\acute{\omicron}\sigma\iota\varsigma$, see p. 68, where mention is made of an explanation that it is an unfortunate attempt to give a supposed epic coloring to Cypr. $\pi\acute{\omicron}\sigma\iota\varsigma$.

σ is frequently omitted in the genitive $\tau\hat{\alpha}$ $\phi\acute{\alpha}\nu\acute{\alpha}\sigma(\sigma)$ as, and also in the nominative 'Ονασίωρο , 75. Meister's treatment (I, p. 160) of the subject in Boeotian and other dialects is inadequate.

$\acute{\kappa}\acute{\alpha}\tau(\iota)$ $\acute{\kappa}\acute{\alpha}\varsigma$ and $\acute{\kappa}\acute{\alpha}$, "and." $\acute{\kappa}\acute{\alpha}\varsigma$ occurs before both vowels (eight times) and consonants (sixteen times). $\acute{\kappa}\acute{\alpha}$ is less frequent, once before vowels, thrice before consonants. $\acute{\kappa}\acute{\alpha}\tau\iota$ in $\acute{\kappa}\acute{\alpha}\tau\text{'Ηδαλίω}\nu$, 59 (the only occurrence) seems at first sight to be the progenitor of $\acute{\kappa}\acute{\alpha}\varsigma$ and $\acute{\kappa}\acute{\alpha}$ as well as of $\acute{\kappa}\acute{\alpha}\iota$. $\acute{\kappa}\acute{\alpha}\iota$ cannot, however, despite Deecke, B. B., VI, 79, be explained from $\acute{\kappa}\acute{\alpha}\tau\iota$. It is rather the equivalent of old Bulg. $c\check{e} < g\acute{a}i$.

On $\pi\acute{\tau}\acute{\omicron}\lambda\epsilon\mu\omicron\varsigma$, see p. 71.

III. Declension of substantives.

Gen. sing. O declension ends in $-\omega$ - ν . $\Phi\iota\lambda\omicron\kappa\acute{\upsilon}\pi\rho\omega\iota$, 60₁; $\text{'Ονασικ\acute{\upsilon}\pi\rho\omega\iota}$, 60_{2-3, 11, 30}; $\text{'Ονασίλω}\nu$, 60₂₄; $\acute{\alpha}\rho\gamma\acute{\upsilon}\rho\omega\iota$, 60_{17, 25-26}; $\tau\acute{\alpha}\lambda\acute{\alpha}(\nu)\tau\omega\iota$, 60₇; $\acute{\iota}\chi\eta\rho\omega\iota$, 60_{5, 15}; $\Delta\rho\upsilon\mu\acute{\iota}\omega\iota$, 60₁₉; $\Theta\epsilon\omicron\sigma\acute{\iota}\mu\omega\iota$, 42 (Apollon); $\text{'Αβιδμ\acute{\iota}\lambda\kappa\omega\iota}$, 59; $\pi\epsilon(\mu)\phi\acute{\alpha}\mu\acute{\epsilon}\rho\omega\iota$, 59. With the exception of $\Theta\epsilon\omicron\sigma\acute{\iota}\mu\omega\iota$ and $\text{'Οναίω}\nu$, 21 (Berl. Philol. Wochensch., 1886, p. 1292), all the examples are from Dali. Dalian inscriptions also have $-\omega$ ($\acute{\alpha}\rho\gamma\acute{\upsilon}\rho\omega$, 60₆, etc.).

Cyprian possesses the oldest historical form of the genitive of $-\eta\nu$ stems, viz. $\beta\alpha\sigma\iota\lambda\eta\phi\omicron\varsigma$, 39, 46, 47, 59, 60,¹ etc. But beside the digammated forms we have $\beta\alpha\sigma\iota\lambda\eta\phi\omicron\varsigma$ or $\beta\alpha\sigma\iota\lambda\acute{\epsilon}\omicron\varsigma$,² both of which forms are Homeric. Aeolic, Ionic, Attic, Thessalian, and Boeotian have $-\eta\omicron\varsigma$, though Ionic, Aeolic, and Boeotian have also $-\epsilon\omicron\varsigma$. $\text{Ε\acute{\upsilon}\phi\acute{\alpha}(\nu)\theta\eta\phi\omicron\varsigma}$?, 161, $\text{Ε\acute{\upsilon}\phi\acute{\alpha}(\nu)\theta\epsilon\omicron\varsigma}$, 162, as if from $\text{Ε\acute{\upsilon}\phi\acute{\alpha}\nu\theta\epsilon\upsilon\varsigma}$, which does not occur. $\text{Ε\acute{\upsilon}\phi\acute{\alpha}\nu\theta\eta[\varsigma]}$, 163. This form, together with the doubtful gen. in $-\eta\phi\omicron\varsigma$, may furnish another example of the close interrelationship between the $-\epsilon\varsigma$, $-\eta\nu$, and $-\eta$ stems. Cf. p. 78. In the nom. pl. $\text{Κετιέ}\epsilon\varsigma$, 60, or $-\eta\phi\epsilon\varsigma$, if Wackernagel (K. Z., XXIV, 295) is correct in explain-

¹ Deecke writes $\beta\alpha\sigma\iota\lambda\acute{\epsilon}\phi\omicron\varsigma$ incorrectly.

² Cf. also $\text{Ιε\rho\eta}\phi\omicron\varsigma$ and $\text{Ιε\rho}\acute{\epsilon}\omicron\varsigma$.

ing this termination from $-\epsilon\epsilon\phi + \epsilon\sigma$. Johansson has, however, vigorously disputed the correctness of Wackernagel's reasoning. See especially Chapter II of his *De derivatis verbis contractis*.

Declension of $-\kappa\lambda\eta\varsigma$. The full form of the nominative appears in *Νικοκλέφης*, 40, gen. *Νικοκλέφος*, 179; *Θεοκλέος*, 126; *Τιμοκλέος*, 35; but *Τιμοκλέεος*, 36, 64. In Arcadian I find eighteen different names with the nom. in $-\kappa\lambda\eta\varsigma$, and no instance of $-\kappa\lambdaέφης$ or $-\kappa\lambdaέης$; in the genitive, $-\kappa\lambdaέος$ in fourteen different names. The Arcadian inflection is younger than the Cyprian. Of the two genitive forms in Cyprian, *Νικοκλέφος* is not so original as *Τιμοκλέεος*; cf. Boeot. *κλειος* < *κλεεος*. There is no trace of $-\kappa\lambda\eta$ in the genitive as in Aeolic (*Θεόκλη*, 288), or of the Attic and Delphic $-\kappa\lambdaέου$.

IV. Pronominal declension.

μ for $\mu\epsilon$ in No. 2¹; cf. $\mu\epsilon\nu$ in 71, $\mu\nu$ in 45, by Voigt and Hall's corrections.

V. Conjugation.

$\epsilon\kappa\epsilon\rho\sigma\epsilon$, 31, 32; see pp. 92, 106.

$\epsilon\pi\iota\sigma\tau\alpha\iota\varsigma$ in 68 = $\epsilon\pi\iota\sigma\tau\alpha\iota\eta\varsigma$, from the analogy of plural forms by a process which is the opposite to that which produced the Herodotean and later Attic $\delta\acute{o}\eta\mu\epsilon\nu \epsilon\nu\theta\epsilon\acute{\iota}\gamma\tau\epsilon$, etc. The form stands alone, I believe.

$\epsilon\lambda\theta\epsilon\omega\varsigma \cdot \acute{\alpha}\nu\tau\iota \tau\omicron\upsilon \epsilon\lambda\theta\acute{\epsilon}$. *Σαλαμίνιοι*. cf. *δίδως*, etc.

$\delta\omicron\sigma\epsilon\nu\alpha\iota$ (accent uncertain) is the earliest form of this infinitive. $-\nu\alpha\iota$ seems to have been crowded out in all other dialects except Ionic-Attic. $\delta\acute{o}\mu\epsilon(\nu)$, 126, is a Homeric reminiscence, as $\epsilon\nu\pi\eta\acute{\eta}$.

VI. Prepositions, Particles.

A preposition $\acute{\upsilon}$ with the primary signification of "up" occurs in Cyprian $\acute{\upsilon}\chi\eta\rho\omicron\varsigma$, *extra pag*, $\acute{\Upsilon}\epsilon\lambda\theta\omega\nu^2 = \acute{\Lambda}\nu\alpha\beta\alpha\acute{\iota}\omega\nu$,³ $\acute{\upsilon}\rho\text{-}\alpha\iota\varsigma \zeta\acute{\alpha}\nu$, 60^{10, 22-23, 28}, *for life*. In the latter case the sense is not far different from $\acute{\alpha}\nu\acute{\alpha} \chi\rho\acute{o}\nu\omicron\nu$, $\acute{\upsilon} \delta\alpha\rho\omicron\nu$, *to the festival*; $\acute{\upsilon} \tau\acute{\upsilon}\chi\alpha[\iota]$, 74⁸ = $\epsilon\pi\iota \tau\acute{\upsilon}\chi\eta = \epsilon\nu \tau\acute{\upsilon}\chi\eta$. Its occurrence in Pamphylian and in Carian is very doubtful.

¹ In No. 1, Voigt thinks $\mu\epsilon$ is preferable to $\mu\iota$, since the character closely resembles that of 15. Hall, however, reads $\mu\iota$, which may be either (epigraphically) dialectic for $\mu\epsilon$ or for $\mu(\nu)$, as in 45.

² This name, together with $\epsilon\acute{\upsilon}\epsilon\lambda\theta\omega\nu$, 123, 171, etc., is remarkable as being entirely new, there being but few, if any, others with $-\epsilon\lambda\theta\omega\nu$ as a final member. In the coining of a new proper name it is necessary that the initial or final member should have already been in use; cf. $\epsilon\acute{\upsilon}\phi\alpha\gamma\acute{o}\rho\alpha\varsigma$, etc.

³ An earlier name of the Maeander.

Pamph. Ὑδραμοῖαν, 1264, would then have to be divided Ὑδραμ-
Carian Ὑβανδα, cf. Ἀλάβανδα, and B. B., X, 191. In *ἑυξάμενος*, written by Deecke *ἑυξάμενος*, the *ῥ* is supposed by Meyer, Gramm.² § 239, to represent vocalized *ϕ*. It is, however, difficult to account for the presence of the labial spirant here. See Brugmann, Gramm., p. 117, and especially Baunack's Studien, I, 16, where the subject of *ῥ* is discussed, and a weakened force of *ῥ* (= Skt. *ud'*) assumed in *ἑυξάμενος*. Hall, Rev. A. O. S., XI, 216, settles the difficulty by reading *μ(ν) εῖξάμενος*.

The Cyprian dialect is peculiar in possessing certain particles not found elsewhere. These are *ιδέ*, *νν*, and *παι*. The use of *δέ*, though frequent in Arcadian, is entirely foreign to the Cyprian idiom. Its place is taken by *ιδέ*, *ανδ*, for which *ι* appears in 60₂₄. But *ιδέ* is used with the force of *δέ* in apodosis. This *ιδέ* suggests the Sanskrit *id*, and may perhaps serve to explain *δέ* in such connection as *ὁ δέ*, which is hardly *ὁ + δέ*.

-*νν* for -*νε* is read by Sayce on the inscription from Tamassus (Berl. Phil. Wochens., 1886, p. 1323). The enclitic *νν*, 60_{8,18}. Cf. A. J. P., VIII, 471.

The particle *παι* appears in *κάς παι*, 60₄; *ιδέ παι*, 60₁₂; *τάς παι*, 71. Whether we are to write *παι* or *πα* is not certain. If *παι*, we may then compare *αι* (cf. above, p. 72), locative from the stem *svā*. *πῆ πῆποκα ὄπη* then contain the instrumental of *πο*-. If *πα*, cf. *ὄπαι κα*, C. I. G. 2483₂₂.

The results which seem to me justified by an examination of the phonology and inflection of Arcadian and Cyprian are as follows:—

I. *Nature of the connection between Arcadian and Cyprian.*—Arcadian and Cyprian are in closer touch than any other two Hellenic dialects, which have at the same time so many and such varied points of divergence. If we consider the date of the separation of the daughter dialect (a date which on any view must be early, even if we reject the legend handed down by Pausanias), the preservation in Arcadian and Cyprian for so many centuries of autonomous existence of so many cases of agreement in form and in syntactical usage, affords a most striking example of the conservative force of dialect life. This resistance to external influence was effected, it must be remembered, to no inconsiderable extent on the lines of a

syntactical usage which must have encountered the determined hostility of common speech ($\acute{\epsilon}\sigma\varsigma$ with the gen., $\acute{\alpha}\pi\acute{\upsilon}$ with the dat.). This pertinacity of linguistic tradition in Arcado-Cyprian is more marked than that displayed by either Aeolic, or Thessalian, or Boeotian, dialects which offered no such stubborn resistance to the elements of disintegration, and which not unwillingly adopted forms alien to the genius of the speech of that territory in North-eastern Hellas, whence they all sprang.

II. *Connection of Arcado-Cyprian with Aeolic, Thessalian, Boeotian, and Elean.* — There is no single striking dialectic feature possessed in common by Arcado-Cyprian, Aeolic, Thessalian, Boeotian, and Elean. It might indeed seem that in the retention of the I.E. pronunciation of ν , these dialects had a meeting-ground. But the Thessalian and Aeolic pronunciation of ν is not certain; and even if it were u and not \ddot{u} , the retention of a pan-Hellenic sound is no proof of any closer bond, unless it can be shown that before the division into dialects, the other Greeks had adopted the later sound \ddot{u} , while the Arcadians, Aeolians, etc., living in closer geographical unity, alone clung to their u . This cannot, however, have been the case, since the Spartans, too, retained with tenacity the older pronunciation. And again, it might seem possible that the preservation of the strong form $\epsilon\rho$ was a distinguishing feature of all these dialects. In Cyprian, it is true, we have no instance of $\theta\acute{\epsilon}\rho\sigma\sigma$, though we have $\acute{\alpha}\rho\iota\sigma\tau\omicron\kappa\rho\acute{\epsilon}\tau\eta\varsigma$; but no single word maintains the strong form throughout the six dialects in question. It is doubtless undeniable that Doric has few, if any, cases of $\epsilon\rho$ for $\alpha\rho$ or $\rho\alpha$; but the co-existence of both strong and weak forms as early as Homer indicates that we must not be hasty in ascribing the $\epsilon\rho$ forms to all the subdivisions of a single "Aeolic" dialect, though it is clear that there obtains a tendency in all these dialects to favor the retention of the older of the two pre-dialectic forms $\epsilon\rho$ and $\alpha\rho$ ($\rho\alpha$).

Whenever we start with a phonetic change that might seem adapted to serve as a criterion, the line of argument is uniformly broken. Thus if we start with $\acute{\alpha}\pi\acute{\upsilon}$, or $\kappa\acute{\epsilon}$, Boeo-

tian and Elean are the offending dialects ; if with *έσς* or with *έν cum accus.*, Aeolic is the guilty member.

In fact, every argument that has been adduced, from the point of view of language, in favor of a pan-Aeolic dialect, fails to hold ground. Labialism (for the dentalism of the other dialects) is clearly not a phase of "Aeolic" phonetic life.

The universality of assibilation can only be upheld by assuming that *ντι* had not become *νσι* in the ground Aeolic, but *νθι*, the *θ* of which is held to represent a sound between *τ* and *σ*. The dulling of closed *ο* to *υ* may be pan-Aeolic, but only in a few words.

Aeolic is bound to Thessalian and to Boeotian by close ties, Thessalian to Boeotian, and Arcadian and Cyprian to Aeolic, Thessalian, and Boeotian by a series of certain and oftentimes unique links, and each is connected with the other by a series of minute correspondences. Aeolic, Thessalian, and Boeotian are more closely connected than any other dialects of this class ; yet they have only one salient feature in common. If we extend our horizon to embrace Arcado-Cyprian and Elean, the attempt to apply the same arguments and gain the results that have accrued to us by an investigation of Doric or of Ionic, is shattered by the logic of unyielding facts. Curtius pronounced long ago in favor of an Aeolic dialect embracing all the sub-dialects except perhaps Elean. Gelbke followed with a more positive assertion, but based on fewer facts. Kirchhoff restricted Aeolic to the dialect of Lesbos and denominated Thessalian and Boeotian Doric. But one who is apparently his scholar, Brand, has now sought to become a unitarian of the unitarians. He is not content with assuming cases of dialect agreement ; he ventures upon the dangerous essay of explaining away all cases of divergence. It is true that certain recent researches have taken a position in favor of an early influence of Ionic which has heretofore not been accorded it. Dialect mixture should, I think, have room and verge enough ; but when recourse is had to it, it must be shown in each individual instance that a distinct probability, not merely a possibility, speaks in favor of its operation. If there is to be method in

dialectology, it must first do away with such work as that of Brand, who attributes an importance to dialect mixture that was unknown before, and solely because the facts do not fit in with his theory. Gerrymandering dialect phenomena cannot but hurt a domain of philology that is sadly in lack of material with which to operate. If, then, there was an "Aeolic" unity, it must have been before the worshippers of the Arcadian Zeus emigrated from Northern Hellas. Into that period of obscurity it is futile to penetrate with the feeble light afforded us by historic times. A pan-Aeolic dialect has not been proved by linguistic evidence — perhaps never can be proved. If it existed, it has left greater divergences in its descendant dialects than either Doric or Ionic.

III. *Arcado-Cyprian in its Relation to Aeolic, Thessalian, Boeotian.* — If we eliminate from the joint possessions of Arcadian and Cyprian those forms that are due to the declining vitality of the old inflectional system, the residue can be claimed as an heirloom from the Arcado-Cyprian period. This is, to be sure, not certain, for many features may have arisen after the separation, and may be of such extreme antiquity that we cannot distinguish them from still older forms such as those which are the exclusive possession of both dialects. Now, though we refused to admit that any pan-Aeolic dialect had been demonstrated, it is possible that the Arcado-Cyprian dialect may show stronger affiliations to the dialects akin to Aeolic than to any other. The evidence, above collected, speaks with no uncertain voice in favor of such a connection with the "Aeolic" dialects; and the legend of the expulsion of the Achaeans, an Aeolic race according to Strabo, might even predispose one in favor of an Aeolic connection.

It is a noteworthy fact that the northernmost of these dialects, that of Thessaly, from which, according to the legendary history of Greece departed Lesbic-Aeolians and Boeotians, is the connecting link between Lesbo-Aeolic and Arcado-Cyprian, and between Boeotian and Arcado-Cyprian. See Collitz, *Verwandschaftsverhältnisse der gr. Dial.*, p. 9 ff.

In the *Berliner Phil. Wochenschr.*, 1886, p. 1324, Decke

has raised the question whether the colonization of Cyprus from Tegea may not have been an Achæan colonization. The Tegeans, then, in crossing Laconia to the sea may have been accompanied by Laconian Achæans who yielded to the irruption of the Dorians.¹ Deecke ascribes to a similarity between Arcadian and Achæan the strong interest in the development of the Homeric epos claimed by Cyprus (A. J. P., VIII, 467 and 481). The worship of Apollo Amyclæos and Apollo Helotas points to a prehistoric connection between Achæan Sparta and Cyprus. Collitz, *Verwantschaftsverh.*, p. 14, claims that the Laconian *Πσοιδάν* is borrowed either from Arcadian or from a closely related dialect. *Πσοοιδάν* may have been the Achæan form.

IV. *Arcado-Cyprian and Doric-Ionic.* — Where both Doric and Ionic fall into line with Arcado-Cyprian, the phenomena in question appear to be survivals of the pan-Hellenic period.

V. *Arcado-Cyprian and Doric.* — Traces of the connection of Arcado-Cyprian with Doric alone are far to seek; η by compensatory lengthening (but not ω) has been explained by the adherents of an Aeolic origin of Arcadian as a proof that the ancestors of the Arcado-Cyprians emigrated from a central point in Northern Greece before $\bar{\epsilon}$ became $\bar{\epsilon}$. But it cannot be shown that ϵi for η was a property of Lesbians, Thessalians, and Boeotians, even on the assumption that they originally inhabited in common a limited geographical area. Is, then, the η of *φθήρων* due to Doric influence, or can it by any means be shown to be pan-Hellenic? That the former is the only possible explanation is clear, from the fact that the ground-form **φθεριω* became *φθήρω* in no dialect except Doric. An Ionic *φθήρω* cannot be shown to have ever existed (despite G. Meyer, § 68). *-ερι-* in Ionic may have produced closed $\epsilon + \rho$ at the very birth of the Ionic dialect. It must therefore be confessed that an unbiassed examination of the evidence makes for the belief that Arcado-Cyprian was either a Doric dialect, or that it borrowed a specifically Doric form in a prehistoric period of its existence. Of the two possibilities, the latter is the more probable from the weight

¹ *Ἀχαιομόνταις· οἱ τὴν τῶν θεῶν ἔχοντες ἱερωσύνην ἐν Κύπρῳ*, Hesychius.

of other evidence. This is the only certain case where Arcado-Cyprian is certainly Doric in character. If the Cyprian ἔχεν be correct, Arcado-Cyprian may be Doric in having -ν as the termination of the infinitive of thematic verbs. But this is true solely on the view that Ionic ὀφείλεν is spurious. If it is genuine, we are driven to assume a pan-Hellenic ending -ν.

VI. *Arcado-Cyprian and Aeolic connected with Ionic-Attic.*

—The repugnance to Doric of Arcado-Cyprian in the earliest phase of its existence is as noticeable, as is, on the other hand, the bond of sympathy with Aeolic, and that of Arcado-Cyprian and Aeolic with Ionic-Attic. Whether this closer touch is the survival of the period when I.E. *ā* had not yet become *η* in Ionic-Attic, or is due to a later, but prehistoric, interconnection between these two series of dialects, is a question that perhaps will always await solution. But Arcado-Cyprian and Aeolic, despite their divergences, stand out in clearer lines of opposition to Doric than do Thessalian and Boeotian, and on the other hand, seem to form a link in the chain which begins with Doric and ends with Ionic-Attic. This statement must, however, not be forcibly construed to imply that Arcado-Cyprians and Aeolians were the first separatists from a common home.

Arcado-Cyprian then points unmistakably to a connection with the so-called Aeolic dialects. If we now descend lower and seek to discover the affinities of Arcadian and of Cyprian when these dialects diverge, and the causes of this divergence, we enter upon an investigation perhaps the most obscure in the whole domain of Greek dialectology.

VII. *Arcadian as distinguished from Cyprian.* — First the dialect of Arcadia. In no canton of Greece is there greater multiplicity of dialectic phenomena so utterly different in color and texture. Arcadia to a greater degree than Cyprus is a veritable battle-ground of contending dialects. As in the petty island Peparethus, three dialects contend for mastery. Its language is but a reflex of the total absence of political union between its mountainous villages; and even the chief towns were a conglomeration of sometime autonomous demes.

In fact, Arcadia was the least cohesive state in Hellas. It was alone the worship of the gods that brought the Arcadians together in a union which was but temporary.

VIII. The correspondences with Aeolic are insignificant, since, with the exception of *δέκοτος*, they consist of survivals of pan-Hellenic speech. Nor is the connection with Thessalian stronger, since both agree in preserving *υς* (though in different functions) and in expelling the *ν* from the same phonetic group. Where Arcadian and Boeotian meet on parallel lines, their cases of agreement are either pan-Hellenic or Doric. Arcadian, Thessalian, and Boeotian agree in a phonetic change which is Doric as well as Ionic. When we embrace a wider area by adding Aeolic to the list, we encounter but two possible harmonies. Of these, one is probably pan-Hellenic, the other (*ερ* for *αρ ρα* in *θέρσος*) is more properly the possession of dialects of "Aeolic" texture, though not their undisputed possession. It cannot on the whole be affirmed that the "Aeolic" predilections of Arcadian are strongly marked.

Its Ionic proclivities are few in number, but most pronounced. The particle *ει* and the infinitive termination *-ναι* are as marked Ionisms as exist in the range of dialect peculiarities.

The Doric side of Arcadian stands out in a strong and clear light. It is, however, but a half-truth when Schrader states, that, wherever Arcadian agrees with dialects of the "Aeolic" sympathies, it agrees at the same time with Doric. Importance should be placed upon the negation of this assertion, as also upon the character of many of the Dorisms of Arcadian, which can easily be shown to be survivals of the pan-Hellenic period. But despite all this, the aggression of Dorisms from the time of the separation of Cyprian is clearly ever more and more vigorous.

IX. *Nature of the Arcadian dialect as distinct from Cyprian.*

—It is impossible to give any completely satisfactory explanation of the concurrence of "Aeolic," Ionic, and Doric forms in a canton of the configuration and situation of Arcadia. This concurrence is one of the most remarkable phenomena

in Greek dialectology, as the combatant dialects of the date of our inscriptions seem to have been combatants in a prehistoric period, and in a region to which Attic or Ionic especially, could not, in the ordinary course of dialect life, have found admission. It is incredible that the Attic forms found in the Tegean inscription No. 1222 should have been loan-forms from Attic in the third century B.C. The vigor of the dialect speaks out too impetuously for that.

The Aeolisms of the Greek language are passive, rarely aggressive (as in Chios: *πρήξοισι, δέκων*). Where they exist in the language of the people they have existed from a period antedating all historical ken. They are never a force in dialect mixture, save in literature. Greek dialectology tells of their ever-receding force, beaten back by the increasing sway of other dialects, such as Doric or Attic, which are the disintegrating factors of the dialect-life of Hellas.

I can therefore see no stable ground on which to establish any immediate sympathy of Arcadian with "Aeolic" dialects, save on the view that the Arcadians were once geographically nearer the ancient Aeolians. Tradition deserts us in our search for an original home of the Arcadians in Northern Hellas. They were to the other Greeks and to themselves *αὐτόχθονες*.

It was beyond the scope of this paper to open up any discussion of the probability of the view proposed. Its difficulty lies not only in the danger that over-zealous investigators may at once assume a period of "Aeolic" unity, but also in the necessity of showing how the Cyprian forms, which have diverged from Arcadian, came into existence.

X. *Ionic and Arcadian as distinct from Cyprian.*—The Ionic ingredients of Arcadian are perhaps due less to Ionic settlers in Arcadia at the time of the Dorian invasion, than to the Ionians of Achaea who had been expelled by the Southern Achaeans, according to Herodotus. If the Cynurians were, as Herodotus assumed (VIII, 73), Ionians before they were Dorized, we have in them a possible, though uncontrollable, source of Arcadian Ionisms.

XI. *Doric and Arcadian as distinct from Cyprian.*—The

Dorisms present less difficulty. They are the natural result of the Doric environment of Arcadia. The states of Arcadia, because of no mutual cohesion, became either allies of Sparta (for example, Tegea, Mantinea, Orchomenos) or sought for other extraneous assistance. The later history of Arcadian is the story of the aggressiveness of the speech of the mistress of the Peloponnesus. With this extension of Dorism the statement of Strabo comports well (VIII, 1, 2, = 333):—

Οἱ δὲ ἄλλοι (Pelop.) μικτῇ τινι (διαλέκτῳ) ἐχρήσαντο, οἱ μὲν μᾶλλον, οἱ δ' ἤττον αἰολίζοντες· σχεδὸν δ' ἔτι καὶ νῦν (19 A.D.) κατὰ πόλεις ἄλλοι ἄλλως διαλέγονται, δοκοῦσι δὲ δωρίζειν ἅπαντες διὰ τὴν συμβᾶσαν ἐπικράτειαν.

The history of the hill-villages of Arcadia or of the rivalries of Tegea and Mantinea, while it explains the possibility of a tenacious hold of ancient dialect-life, at the same time shows that when Spartan influence became supreme, many of the ancient dialect forms would disappear. At the time of Thucydides, Sparta held two-fifths of the Peloponnesus. Even the northern boundary of Sparta consisted of petty Arcadian townships. We have had occasion to admit that even in Arcado-Cyprian times, Doric influence had forced a footing into a dialect that was otherwise in closer touch with "Aeolic." Legendary history but confirms the evidence of language. Charilaus took Aegys; Oenus and Carystus were Spartan as early as the times of Alcman; the Sciritis district had been conquered by 600 B.C.; and though Tegea retained her autonomy, she was under the military dominion of her more warlike neighbor. It was not until the foundation of Megalopolis that Spartan supremacy lost any of its power. But even from the battle of Leuctra on, the very memory of that supremacy could not fail to make itself felt in the domain of language which was subject to the control of no Epaminondas.

XII. *Cyprian as distinguished from Arcadian.*—The traces of sympathy between Cyprian and Aeolic, or Thessalian, or Boeotian, are not strongly marked. With Aeolic Cyprian has *κυμερ-* for *κυβερ-*, but its other points of agreement with Aeolic and the other dialects of this class are generally shared in by either Ionic or Doric. The connection of Arcadian with

Aeolic is perhaps stronger than that of Cyprian with Aeolic. Cyprian, Aeolic, Thessalian, and Boeotian have resisted longer than Doric the ingression of the Ionic ν ἐφέλκυστικόν.

With Doric, Cyprian, apart from Arcadian, seems in closer touch than with Ionic; which need not be wondered at, since Rhodes, Crete, Pamphylia, and other settlements of Doric growth were not far distant. Curium is said to have been settled by an Argive colony (Strabo, XIV, 683; Hdt. V, 113); and one of the neighboring towns was called Argos.

XIII. *Character of the differences between Arcadian and Cyprian.* — If we compare those cases in which there is an absolute disagreement between Arcadian and Cyprian, it is evident that either the one dialect or the other has preserved the more ancient form. In some instances where it is impossible to fix the chronology of a phonetic change or where two variant forms appear to antedate the separation into dialects, we can obtain no light as to the relative priority of Arcadian or of Cyprian.

Thus Arcadian has $\tauει$, Cyprian $\piει$ (ἀποτειέτω, πείσει), Arcadian πόλις, Cyprian πτόλις, Arcadian εἶ, Cyprian ἦ.

The "acorn-eating" Arcadians are less prone to admit innovations than their offspring. Thus they have preserved antevocalic ϵ , the ancient locative plural, though in but a single example, $-av$ from $\bar{a} + \sigma\omega$, instead of adopting, as the Cyprians occasionally have done, the Doric $-\bar{a}$ or the Ionic $-\omega$; in the O declension they have kept the termination pure, refusing to allow the adhesion of ν ; they have not suffered ἄλλων to be softened into αἴλων; they have resisted the expulsion of secondary intervocalic σ (Cyprian φρονέωι); they have preserved σ where it is in place (Cyprian τᾶ φανάσ(σ)ας); they have not changed τ from I.E. q to σ ; they have no ζ for $\delta\iota$ -. That $\acute{\alpha}\nu = \acute{\alpha}\nu\acute{\alpha}$ is a loan-form in Arcadian, though older than $\acute{\delta}\nu$, is probable, since it is difficult to account for a later ingression of an Aeolic form into Cyprus. The Aeolisms of Cyprus are generally joint possessions of Arcadian and Cyprian. It is more probable that Arcadian should have adopted Dorisms than that Cyprian should have lost Aeolisms.

But as in the offspring hereditary traits are reproduced

which have not appeared in the parent, so Cyprian is oftentimes the representative of a more ancient period than Arcadian. It has the oldest genitive of the *ην*-stems in *βασιλῆφος*; it has the ancient *-κλέφεος*, whereas the Arcadian genitive is invariably *-κλέος*; it has *ἔκερσε*, whereas Arcadian, even on the view that the vexatious *φθέραι* is for *φθῆραι*, is younger; it has *ās* in the feminine genitive, while Arcadian has *-av*. And furthermore, it has clung tenaciously to such an older form as *-ει* in the dative of *-ες* stems, where Arcadian has *πλήθι*.

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VI. — *Long Vowels and Diphthongs in Old Germanic
and Old English.*

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IN Vol. XII of the Transactions of this Association an account was given of the origin of the sound *a* and its development in Old and New English. In Vols. XVI and XVII, all other short vowels were examined; and in Vol. VII of the Anglia, the Old and New English long vowels and their relations to each other were treated. It now remains to show the origin of long vowels and diphthongs in Old Germanic and Old English. The length of the vowel in an og. word must be determined by the forms of the existing dialects; and the number is so small that I have thought it best to include in the list all words that can claim to be og., whether or not they are found in œ. The length of the œ. vowels is also often doubtful; as they are only occasionally, and not consistently, marked in the Mss. It is only by an examination of cognate dialects, such as this, that œ. quantity can be established on a firm basis.

The og. vowels with which we have to do are *ī* (*ei*), *eu*, *au*, *ā* (*ē*), *ō*, *ū*. There is no reason to assume an *iu*, as is done by Fick, and no means of distinguishing *ei* from *ī*, or *ā* from *ē*, though both sounds may have existed. In their origin these vowels may be classified thus:—

(1) All these sounds except *ū* occur in ablaut, and owe, at least in many cases, their presence in other words to this fact.

(2) Following nasals coalesce with vowels to form *ī*, *ā*, *ō*, *ū*, which are also produced (3) by other contractions and (4) by the liquids *r* and *l*.

(5) Sometimes they occur medially in words where they were once final, and so lengthened in auslaut. This lengthening may have been either Indo-Germanic or og.

(6) In several cases the source of lengthening is doubtful or unexplained.

The number of long vowels and diphthongs increases as we advance toward the OE. period. In OE. we find *ī, ie, iē, ē, ēa, eā, ēo, eō, āē, ā, ō, ū, ȳ*. All the old lengthenings are retained; and all the causes that produce lengthening are still active, except the influence of *r* and *l*: umlaut has added *īe, ē, ȳ*; palatalization, *iē, eā, eō*. Never in any period of English were there so many long vowels as when the language first appears. The number of short and partially articulated vowels has steadily increased, the number of long vowels has steadily declined, with the growth of the language till the present time.

I, EI.

These vowels cannot be distinguished in any Germanic dialect. It is, however, at least probable that both existed in OG.; one being the intermediate vowel in the *i*-ablaut (*ai, ei, i*), the other the result of contraction or lengthening. If this is the case, *ī* is the last of the OG. vowels to be formed. In suffixes *ī* is found in *-īna, -īni, -īn*, Gothic *-eina, -eini, -ein*, OHG. and OS. *-in, -i*, ON. *-in, -i*, OE. *-en, -u (o)*. *Īn* and *īni* form abstract nouns, *īna* forms adjectives like Latin *-īnus*. The *ī* of *-īn* is from an older *ja* (see 3); the *ī* of *-īna* and *-īni* is lengthened before *n* (see 2).

1. *Ī (ei)* in ablaut relations is found in the present stem of all verbs of Class II, a list of which is given in Transactions, Vol. XIV, p. 62, and also in the following words from *i*-roots. The affixed numbers refer to the pages of the third volume of Fick's Wörterbuch, where allied words can be found.

OG.	G.	ON.	OE.	OHG.	COGNATES.
deika 147		dīki	dīc	tīch MHG.	Cp. L. figo
eisa 32		īss	īs	īs	Cp. Skr. ish (slip)
	eisarn	īsarn	īsern	īsarn	
greima 111		grīma	grīma		Cp. grīnan II
heitan 75	heito				Cp. OE. hat, ON. hiti
heiva 76	heiva-	hī-byli		hī-rat	Cp. L. civis, Skr. çiva, çeva

OG.	G.	ON.	OE.	OHG.	COGNATES.
		hjön-	hiwa	hiwo	
		hÿski	hiwisce	hiwiski	
hleida 88		hlidh	hlidh	lita	Cp. OE. hlidh, hlaw
hweila 75	hveila	hvila	hwil	hwila	Cp. L. quies, tranquillus
hweita 94	hveits	hvitr	hwit	hwiz	Cp. OE. hwaæte
		hviti		wizi	Skr. çvit
kneiba 48		knifr	cnif		Cp. NHG. kneifen II
leiba 271		lif	lif	lib	Cp. OE. lifan II
leima 268		lim	lim	lim	Cp. OE. lam
leina 271	lein	lin	lin	lin	Cp. L. linum
leistan 272		lista		lista	Cp. OE. list, last
leitila 269	leitils	litill	(lytel)	(luzil)	Cp. G. lita, OHG. liz
leithu 268	leithus	lidh	lidh	lid	Cp. OG. leima, leira
neitha 163	neith	nidh	nidh	nid	Cp. L. nitor
		nidha		nidan	
reiba 254		rifr		ribe MD.	Cp. ON. rifa II
seidan 312		sīdha	sīde	sīta	Cp. G. seithus, sainjan
seiman 321		sīmi	sīma	sīmo	Cp. OE. sinu, sāda
seithu 312	seithus	sīdh	sīdh	sīd	Cp. OE. side, sāene
		sīdhar		sīdor	
skeida 335		skidh	scīd	scit	Cp. G. skaidan V
skeita 335		skitr		schize MHG.	Cp. ON. skita II
steiga 348		stī	stīgu	stīga	Cp. OE. stigan II
steima 347		stīm		stīm MHG.	Cp. OE. stān
streida 349		strīdh		strit	Cp. OE. stritan II
sweiga 364			swigjan	swigen MHG.	Cp. Schade, Wb. 915
teidi 114		tidh	tid	zit	Cp. OE. tācor, Gr. <i>δαλομαί</i>
teiman 114		tīmi	tīma		Cp. teidi
theina 134	thein	thīn	thīn	dīn	Genitive of thū
veiba 305		vīt	wif	wīb	Cp. ON. veifa, L. vibrare
veiha 303	veihs	(vīgja)	wih	wīh	Cp. OE. wih, Skr. vic
veira 302		vir	wir	wiara	Cp. Schade, Wb. 1134
veisa 306	un-veis	viss	wis	wīs	Cp. G. unwis
veithja 302		vidhir		wīda	Cp. Schade, Wb. 1137

2. Long \bar{i} from e or i plus nasal. This subject is treated very fully in Johann Schmidt's *Indo-Germanischer Vocabularium*, I, 49-62. Several strong verbs owe their ablaut to a change from en to \bar{i} in the present, which causes them to follow the analogy of verbs of Class II.

Such are OE. *blīcan*, *clīfan*, *drītan*, *glīdan*, *grīpan*, *nīpan*, *scrīdhan*, *slīpan*, *strīcan*, ON. *svidha*, *thrīfa*, G. *skreitan*, *threihan*, OHG. *glīzan*, *rīhan*, *slīhhan*, MHG. *krīgen*, *splīzen*, *sprīten*. Others change the present from in to \bar{i} . Such are OE. *bitan*, *mīgan*, *sēon*

(OHG. *sihan*), *wigan* (Schm. Voc. I, 48). Now since this *ī* is confused with the present vowel of Class II, it is plain that that must have had an *ī*, or a sound very nearly like it. This is the chief reason for holding *ī* and *ei* to be identical sounds in OG.

The following words have *ī* from *a*-roots:—

OG.	G.	ON.	OE.	OHG.	COGNATES.
bīva 211		bȳ	bēo	bīā	Cp. OHG. bini, Skr. bha
blītha 222	bleiths	blidhr	blidhe	blidi	Cp. blincan I c and blican
		blessa	blidhs	blidsea OS.	II
gīsla 107	(geisnan)	gisl	gīsel	gīsal	Cp. Schm. Voc. I, 56, 136
īva 31		ȳr	iw	iwa	Voc. I, 48. Prus. inwis
līhta 264	leihts	lettr	lēoht	liht	Voc. I, 52.
līka 268	galeiks	glīkr	gelic	galih	Voc. I, 92, Schade, Wb.
	leikan	lika	lic	lihhen	555. Cp. Lith. link-
	leik	lik	lic	lih	
		likkamo	lichama	lihhamo	
rīka 248	reiks	rikkr	rice	richi	Schade, Wb. 715
svīma 365		svīmi	swīma	swim ND.	Cp. swimman I c
vīha 303		vīg	wīg	wīg	Voc. I, 49. Cp. L. vinco

3. Contraction of *i-i* or *i-j* produces *i* in the following words:—

OG.	G.	ON.	OE.	OHG.	COGNATES.
fri 193	freis (freidjan)	fri frīdhr	frēo frīdh	fri	Cp. ON. frja, G. frijōn, Skr. prijas, pritas
svīna 324	svein	svin	swin	swīn	L. suinus = sui-ina
vidā 305		vidhr	wid	wit	Cp. OHG. widar. Schade, Wb. 1138, 1185. Prefix vi, root i
		vidha	wido	wito	
		vidha		witjan	

Contraction of *aja* or *aka* in IG. which became *eja* or *eha* in OG.:—

OG.	G.	ON.	OE.	OHG.	COGNATES.
tira 121		tirr	tir	(ziari)	L. decus. Voc. II, 448.
thris 141	threis	thrīr	thri	drīē	Cp. G. thrijōs, OE. thrēo, O. Bulg. trije, Skr. trajas

4. The liquids *r* and *l*, preceded or followed by European *e*, may change this *e* to *i* in OG., and in other European dialects as well. The subject is fully treated in Schmidt's *Vocalismus*, II, 457 f. and 463 f. To this influence the following strong verbs owe their change of class from Ia or Ib to

II : OE. *hrīnan*, *līfan*, *rīdan*, *rīsan*, *wrīdhan*, ON. *thrīfa-sk*, OHG. *rīman*, MHG. *glīen*, *glīmen*. The following also have *ī* from *a*-roots through influence of liquids :—

OG.	G.	ON.	OE.	OHG.	COGNATES.
blīva 222		blī		blīo	From bleva. R. blau
slīma 360		slīm	slīm	slīm M.	L. limus, Gr. λιμήν
grīsa		grīss			Voc. 458. Skr. ghrīśvis
hrīma 84		hrīm	hrīm	rīme M.	Voc. 340, 457
hrīsa 84		hrīs	hrīs	hrīs	Voc. 458, O. Bulg. chrastu
		hrīsla	hrīsel		
rīma 347		rīm	rīm	rīm	Voc. 467, Irish aram
skīra 335	skēirs	skīrr	scīr	schīr M.	R. ski-ra. Schade, Wb. 798
		skīra	scīran		
thristja (Voc. 458)			thriste	thristi os.	Cp. Skr. dhṛṣṭa

To these Schmidt loc. cit. adds G. *idreiga*, ON. *skritinn*, *sprīkja*, *brisingr* OHG. *grīs*, *rītra*, *strīmo*, all which seem to me doubtful.

OG. *ī* is represented in G. by *ei*; in other dialects, by *ī*, except as follows :—

ON. *īv* becomes *ȳ* in *bȳ*, *blȳ*, *ȳr*, *hȳ-byli*, *hȳski*. *ī* becomes *i* in *gisl* and *j* in the contractions *frjals*, *hjōn*. *Lēttr* recalls the time before *en* became *in* and this *i*.

OE. *ī*, when final, becomes *ēo* in *frēo*, *frēols*, *thrēo* (*thrī*), *bēo*, *wēo* (*wīh*), and also in *lēoht*.

OHG. *ī* becomes *ia* before *r* in *wiara*, *ziari*, but not always; cp. *schīr*, *īrat*.

EU.

In OG. *eu* is the intermediate sound between *au* and *u*. It occurs, therefore, in the present stem of all verbs of Class III, of which a list has been given in Vol. XIV of the Transactions. It occurs, also, in the following words, always from *u*-roots :—

OG.	G.	ON.	OE.	OHG.	COGNATES.
bēuda 214	biuds	bjōdhr	bēod		Cp. OE. bēodan III
bleuga 220		bljūgr		bliuc M.	Cp. OHG. blugison
breuska 217		brjōsk		brūsche M.	
breusta 217	(brusts)	brjōst	brēost	(brust)	
deupa 150	diups	djūpr	dēop	tiuf	
	diupitha	dȳpt	*diepdh		
	diupeī	dȳpi	diepe	tiufi	

OG.	G.	ON.	OE.	OHG.	COGNATES.
deurja 146		dȳr	dēore	tiuri	
deusa 148	dius	dȳr	dēor	tior	[ἐνθης
eusa 6	ius				Cp. Skr. avas, Gr.
feuhtra 187				fiuhtra	Cp. Gr. πεύκη
feura 187		fȳr	fīer (fȳr)	fiur	Gr. πῦρ
				fiurin	Gr. πύρινος
fleuda 195		fijōtr	fīēot-ig		Cp. OE. fīēotan
gleuja 113		glȳ	glēow (gliw)		Cp. Gr. χλεύη
greuta 110		grjōt	grēot	grioz	Cp. OE. gritte
heura 76		hȳrr	hēore	hiuri	Cp. Skr. çiva (?),
hleuman 89	hliuma			lium-unt	
hleura 88		hlȳr	hlēor	hlior os.	Cp. L. clivus (?)
hleutha 89	hliuth	hljōdh	hlēodhor	hliodor	
hreuba 85		hrjūfr	hrēof	riob	Cp. MHG. grob
jeula 245	juleis	jōl			
		ȳla	gīelan		
keula 46		kjōll	cēol	chiol	
		(kȳll)	(ciel)	(kiulla)	
leuba 278	liubs	*ljūfr	lēof	liob	
leudi 277		lȳdhr	lēod	liut	
leuhman 275		ljōmi	lēoma	lioma	Cp. G. lauhmunja
leuhsja 275		lȳsa	liexan		Cp. ON. ljōs
leuta 276	liuts	ljōtr			Cp. ON. lūta III
leutha 268	(liuthon)	ljōdh	lēodh	liod	
meusa 241		mȳrr	mēos	mios	Cp. NE. moss
neuhsja 163	niuhsjan	nȳsa	nēosan	niusen	
	niuhsains	njōsn			
neuja 164	niujeis	nȳr	nēowe (niwe)	niuwi os.	Cp. OHG. niwi
neuran 163		nȳra		nioro	Cp. Gr. νέφος
reuda 257	-riuds	rjōdhr	rēod		
reura 255	riurs	rȳrr			
	riurjan	rȳra			
seuka 325	siuhs	sjūkr	sēoc	sioh	
skeuja 337		skȳ	scēo	skio os.	
sneumja 351	sniumjan	(snemma)			
	sniumundo	(snemmendis)		sniumi	
speuta 355		spjōt		spioz	
steupa 347		stjūpr	stēop	stiof	
steurja 342	stiurjan	stȳra	stēorjan	stiuran	Cp. G. stiurs
		stjōri	stēora	stiuro	
teuna 122		tjōn	tēon		
		tȳna	tīenan		
theuba 133	thiubs	thjōfr	thēof	diob	
		thyfdh	thiefdhe		
	thiubi	-thȳfi		diubja	
theuda 136	thiuda	thjōdh	thēod	diot	

OG.	G.	ON.	OE.	OHG.	COGNATES.
		thýdha		diuten	
		thýdhing		diutunge	
theuha 135		thjō	thēoh	dioh	
theuja 136	thivi	thȳ	thēow	diuwa	
theuna 135		thjōna	thēonan	dionen	Cp. ON. thjōnn
		thjōnosta		dionost	
theutha 136	thiutha	thjōdh			
theuta 137		thȳtr		diez m.	Cp. OHG. diozan III

All these are clearly from *u*-roots except *heura* — which may be from *iv*, which became *iu*, and then *eu* — and *neuran*, where the *eu* is probably from *eb*. Several cases of this change are collected by Fick, III, 163.

OG. *eu* becomes *iu* in G., *jō* or its umlaut *ȳ* in ON.; except in a few *a*-stems, *bljugr*, *djuþr*, *hrjufr*, *ljuftr*, *sjukr*, *stjuþr*. In OE. it is *eo* or its umlaut *ē* (*ȳ*); in OHG., *io* in *a*-stems, *iu* in *i*- and *u*-stems, with occasional confusion between them.

A (E).

OG. *ā* or *ē* was usually the result of a contraction in the preterit plural of strong verbs with *a*-roots followed by a single consonant — Class I, a, b — and words derived from this form; it is also produced by the influence of nasals and liquids, *w* and *h*, on *a*. Often the lengthening is Indo-Germanic, though this IG. *ā* also becomes *ō*. A number of cases are of doubtful origin.

The sound of this vowel in OG. is variously stated. To me *ā* seems more probably correct than *āē* or *ē*, because of the cases where it is formed by an absorbed nasal which, later in the language, would have produced *ō*, and which, as well as *w*, tends to lower rather than raise the tone of the preceding vowel.

I. OG. *ā* in ablaut relations occurs in the preterit plural of strong verbs of Class I, a, b (see Transactions, XIV, 58), and in the following words: —

OG.	G.	ON.	OE.	OHG.	COGNATES.
āta 14		āt	ācs	āz	Cp. OE. etan Ia
bāra 202			bācre	bāra	Cp. OE. barar, bera Ib
bārja 202		bācrr	-bācr	bāri	Cp. ON. beran Ib

OG.	G.	ON.	OE.	OHG.	COGNATES.
dādi 152	dēds	dādh	dāed	tāt	Cp. G. dēdum prt. pl.
fāha 170	(fēhaba)	fāha			Cp. OE. faeger
fāra 175	(fērja)	fār	fāēr	fāra	Cp. OE. faran IV
		fāera	fāeran	fāran	
frāgja 189		frāegr	-frāege	-fragi OS.	Cp. G. fraihnan I a
gāban 100		gāfa		gābe M.	Cp. OE. geban
		(gāefa)		(gāebe)	
kvāmja 54		kvāemr	-cwēme	-quāmi	Cp. G. qiman I b
kvāni 39	qēns	kvān	cwēn	quān OS.	Cp. G. qino
lāga 262		lāgr (lāegi)		lāege M	Cp. OE. licgan
māga 228	mēgs	māgr	māeg	māg	Cp. OE. maeg prt. prs.
mātan 224		māti		māza	Cp. OE. metan I a
nāma 165	-nēms	nām	nāme	nāma	Cp. OE. niman I b
sāti 317		sāt	sāet	sāza	Cp. OE. sittan I a
svālja 363		svācla	svāclan		
svārja 362	svērs		svāere	svār	Cp. OE. sveran I b
vādi 284		vādh	wāed	vāt	Cp. G. vidan
vāga 283	vēgs	vāgr	wāeg	wāg	NE. wave. Cp. OE. we-
vāga 283		vāg	wāege	vāga	gan I a
vāra 292	(vērjan)	vārur		wār (wāra)	Cp. L. verus
vrākja 264		-rāekr		-rāeche M.	Cp. OE. wrecan I a

2. OG. *ā* from *an*:—

OG.	G.	ON.	OE.	OHG.	COGNATES.
ādma 15			āedhm	ātum	Skr. ātman. Cp. G. anan
ādra 15		āedhr	āedre	ādara	Skr. āntra. Cp. G. anan
āla 13		āl	āel	āl	L. anguilla, Gr. ἔγγελος
bāga 198		bāgr		bāga	Skr. bamh and bāh
grātan 108	grētan	grāta	grāetan	grāzen M.	Cp. L. grando. Voc. I, 36
lāt 263	-lēt	lāt		lāz	Cp. Voc. I, 45, and Zt.
	lētan	lāta	lāetan	lāzan	D. A., XIX, 412
nāhv 157	nēhv	nā-	nēah (āē, ē)	nāh	Cp. L. nancisci
nātha 160 ¹		nādh		-nāda	Cp. G. nanthan, nithan
rādan 250	rēdan	rādha	rāedan	rātan V	Cp. Lith. randu, Skr.
		rādh	rāed	rāt	rādh. Voc. I, 36, 44
smāha 356		smār		smāhi	Cp. L. macer. Voc. I, 108
vāta 284		vātr (vāeta)	wāet (wāetan)		Cp. OE. waeter, L. unda

3. OG. *ā* is for an older *ah* in *rāna* 50, ON. *rān* (*rāēna*), OHG. *rān* (*rānen*); cp. OHG. *birahanen*, Skr. *raḥ*. Similarly for *av* with epenthesis of *l* in *sālja* 320, G. *sēls*, ON. *sāel*, OE. *sāel*, OHG. *sāl-ig*; cp. L. *salvus*, Skr. *sarva*. Oftener the *v* lengthens the *a* without being absorbed. This *av* may

¹ This cannot be from *nithan*, the preterit plural of which is *nēdum*.

be from *a-v* or *au*. The former may have been lengthened before the addition of the suffix, but the latter must owe their length to the *v*. The cases are:—

OG.	G.	ON.	OE.	OHG.	COGNATES.
blāva 221		blār	blāew	blāo	L. flāvus. Root blu
brāva 216		brā	brēaw	brāwa	Cp. OE. bruwa
frāva 190		frār	frēa	frāo (frō)	From prā-va
grāva 110		grār	grāeg	grā	L. rāvus, Gr. ?
hlāva 87		hlāer		lāo	Cp. L. calere, R. kla-va
hrāva 84		hrār	hrēaw	hrāo	Cp. L. cruor. Rt. kru
klāva 52		klō	clēo (clāwu)	chlawa	Cp. L. gluere. Rt. glu
skāvja 337	skēvjan	skāeva			Skr. cyavatē. Rt. sku
thrāvja 91		thrēyja	thrōwan	druoan	Cp. Gr. Rt. tar-u

4. Lengthening by liquids.

The liquids *r* and *l*, and once *n*, also lengthen *a* to *ā*. *l* has this power in *sālja* (3) and in *skāla* 334, ON. *skāl*, OHG. *skāla*; cp. ON. *skēl*, OE. *scel*, OHG. *skala*, Russ. *skala*, Voc. 418, and *tāla* 120, ON. *tāl*, OE. *tālu*, OHG. *zāla*, L. *dolus* (Rt. *dar*), Voc. 418. Lengthening by *n* is found in *āna* 15, ON. *ān*, OHG. *āna*, Skr. *anō*. *r* causes lengthening in *grādu* 109, G. *grēdus*, ON. *grādhr*, OE. *grāed* and *grāedig*, O. Bulg. *gladu*, Skr. *garth*, Voc. 454; also in,—

hāra 67, ON. *hār*, OHG. *hār*, OE. *hāer*, L. *crinis*. Schade, Wb. 372.

mānja 233, G. *mērs*, ON. *māerr*, OE. *māere*, OHG. *māri*, L. *mērus*, O. Bulg. *mēru*.

rāsa 252, ON. *rās*, *rāsa*, OE. *rāes*, *rāesan*, NHG. *rasen*, Voc. 459, Rt. *ras*.

5. When final *a* becomes *ā* which may afterwards, by addition of a suffix, become medial. Such cases are:—

OG.	G.	ON.	OE.	OHG.	COGNATES.
ā 1		āē		ā	L. ā, Gr. ā, Skr. ā
bāja 197				bājan	L. fovere, Skr. bhā
bāla 208		bāl	bācl		Gr. φαλός, Skr. bhala
blāja 219		(blāer)	blāwan	blāhan	L. flāre, Gr. φλέω
blāsa 220	blēsan	blāsa	(blāest)	blāsan	From blāja
brāda 216		brādh		brāt (brātan)	Root brād
frā 177	fra	frā			Skr. parā
hāra 67		hārr	hār		Skr. çāra
jā 243	ja	jā	geā	jā	
jāra 243	jēr	ār	geār	jār	Gr. ἄρα. Rt. ja-ra

OG.	G.	ON.	OE.	OHG.	COGNATES.
knā 41		knā	cnāwan	chnāhan	Gr. γινώσκω
lā 259	laian				L. latrare, Skr. rā
māla 223	mēl	māl	māel	māl	Rt. māla
māda 223			māed		Cp. L. metior. Rt. mā
māja 224			māwan	mājan	Gr. ἀμάω. Rt. mā
mānan 231	mēna	māni	mōna	māno	Gr. μήν. Rt. mā
nāthla 156		nāl	nāedl	nādela	Cp. OHG. nājan, L. nēre
sā 312	saian	sā	sāwan	sājan	Gr. σάω, L. serere
sāmi 319			sām-	sāmi-	L. sēmi-, Skr. sāmi-
stādja 340				stāti	L. Statius. Rt. stā
strāla 346		(strjāl)	strāel	strāla	O. Bulg. strēla. Rt. stra
svā 360	sva	svā	swā	sō	Skr. sva
vā 279	vaian		wāwan	wājan	Skr. vā
-wāra 126		-var		-ōr	Skr. vāra ¹

6. There remain doubtful :—

OG.	G.	ON.	OE.	OHG.	COGNATES
bajātha 196	bajōths	badhir		bēde	Skr. ubhaya
lākja 261	lēkeis		lāēce	lāchi	
		lāekna	lācnian	lāhhinon	[maku
māhan 226				māgo	Gr. μήκων, O. Bulg.
mākja	mēki	māekir	mēce	māki	
rāfa 251		rāfr		rāfo	Gr. ῥοφος (?). Rt. rap
rāma Schade, Wb. 699				rāmac	Cp. Skr. rāma (?)
slāpan	slēpan		slāēpan	slāfan	See Schade, Wb. 816
spāni 352		spānn		spān	Gr. σφήν. Schade, Wb. 846
vāni 287	vēns	vān	wēn	wān	See Schade, Wb. 1088,
		vāēni		wāni	1198; Kluge, Wb.
	vēnjan	vāēna	wēnan	wānjan	361
vāpna 288	vēpna	vāpn	wāēpen	wāfan	Cp. Skr. vap

OG. *ā* corresponds to G. *ē*, ON. *ā* or its umlaut *āē*, OE. *āē* (*ā* before *w* and nasals, and when final; the umlaut of this *ā* is *āē*), OHG. *ā*, and in MHG. the umlaut *āē*. Variations from this rule are :—

G. may have had *a* for *ā* when final (*fra*, *ja*, *swa*), and changes *ā* to *ai* in *laian*, *saian*, *vaian*. *Bajōths* is isolated.

ON. *-var* has no accent: *barar*, *klō*, *threyja*, may be from other stems.

OE. has *ē* for *āē* as umlaut in *-cwēme*, *cwēn*, *mēce*, *wēn*.

ā in *tālu*, *wāge* (also *wāge*); *ēa* in *brēaw*, *frēa* (*fraēw*),

¹ In ON. *tysvar*, *thrisvar*, OHG. *swirōr*.

hrēaw, nēah; *eā* after *g* in *geā, geār*; *eō* in *clēo (clāwu)*; *ō* in *mōna, thrōwjan*.

OHG. has *ō* for *wa* in *sō, -ōr*; *uo* in *druoan*; *ē* in *bēde*; *a* in *chlawa*.

AI.

OG. *ai* is the third form of the *i*-ablaut, and is therefore found in the preterit singular of verbs of Class II and of Class V, d, Transactions, XIV, 62, 69. It occurs also in the following words from *i*-roots, except as noted below:—

OG.	G.	ON.	OE.	OHG.	COGNATES.
aida 4			ād	eit	Gr. <i>aiθos</i>
aigina 2		eiginn	āgen	eigan	Cp. OE. āgan. prt.prs.
aika 2		eik	āc	eih	
aina 30	ains	einn	ān	ein	
ainlif 31	ainlif	ellifu (eilf)		einlif	Lith. v-enolika
air 30	air	ār	āer	ēr	Cp. L. ire. Root i
aira 4		eira	ārian	ēran	
airu 30	airus	ārr	ār	ēru OS.	Rt. i
aisa 5	aiz	eir	āer	ēr	L. aes, Skr. ayas
aiska 5		āeskja	āscian	eiscon	O. Bulg. iska
aista 5	aistan	āesta			L. aestimare
aita 4		eitill		eiz M.	Gr. <i>oiθos</i>
aitra 4		eitr	ātor	eitar	From aita
aitha 4	aiths	eidhr	ādhr	eid	O. Irish oeth
aiva 30	aivs	āē	ā (āē)	ēo (ēwa)	L. āevum
	aiveins	āevin		ēwin	
arbaidi 25	arbaiths	(erfidhr)	(éarfodh)	arabeit	Cp. Voc. 478 ¹
baidja 201	baidjan	beidha	bāēdan	beitan	Schade, Wb. 47
baina 197		bein	bān	bein	
baita 200		beit	bāt		
baitja 210		beita	bātian	beizan	Cp. OE. bitan II
blaika 222		bleikr	blāc	bleih	Cp. OE. blīcan II
braidja 215	braids	breidhr	brād	breit	
	braidjan	breidha	brāēdan	breitan	
daiga 147	daigs	deig (deigr)	dāg (?)	teic	Cp. G. daigan II
daila 142	dails		dāēl	teil	Lith. dalis ¹
	dailjan	deila	dāēlan	teilan	
		deild		teilida	
faiga 169		feigr	fāēge	feigi	See note 1
		feigdh	fāēgdh		

¹ Epenthesis of *i* or *j* in the following syllable has produced *ai* from *a* in *arbaidi, daila, faiga, faila, haila, hraiva, maila, saira, saiva, taina*.

OG.	G.	ON.	OE.	OHG.	COGNATES.
faikna 168		feikn	fācen	feihhan	Cp. OE. gefic
faila ¹			fāell	feili	Cp. ON. falr, OHG. fali
faimana 169		feima	fāemne	femea OS.	Cp. Gr. ποιμήν
faita 169		feitr		veiz M.	Cp. Skr. pi, payatē
		feita		feizit (part)	
flaiha 193	(thlaihan)	flār	flāh		(flēhjan)
flaiska 180		flesk	flāesc	fleisk	
fraisra 192	fraisan	(freista)	frāsian	freison	
gaisa 96		geirr (geiri)	gār	gēr (gēro)	
gaiti 96	gaits	geit	gāt	geiz	L. haedus
graipa 111		greip	grāp	greifa	Cp. OE. gripan II
haida 56		(heidh)	hādor	heitar	Cp. Skr. cit
haidu 56	haidus	heidhr	hād	heit	Cp. Skr. cit
haifti 56	haifsts	heipt	hāest		
haiha 55	haihs				L. caecus
haila 57	hails	heill	hāl	heil	See note 1. Cp. Skr.
		heilagr	hālig	heilig	kalya, Gr. κάλος, and
		heilsa	hālsian	heilison	Schade, Wb. 379
		heildh	hāeldh	heilida	
		heilsamr		heilsam	
haima 75	haims	heimr	hām	heim	Cp. Skr. kshēma
haina 56		hein	hāēn		Rt. ki
haisa 57	hais (?)	häss	hās	heis	
haita 55	-hait	heit	-hāt	heiz	From hātan V
haita 75	(heito)	heitr	hāt	heiz	Cp. ON. hiti
		heita	hāetan	heizan	
haitha 56	haitheis	heidhr	hāēdh	heida	Cp. Skr. kshētram
	(haithno)	heidhinn	hāēdhen	heidan	
		heidhni		heidani	
hlaifa 86	hlaifs	hleifr	hlāf	leib	Cp. Lett. klaips
hlaiva 88	hlaivs		hlāw (hlāēw)	hlēo	Cp. L. clivus
hnaigja 81		hneigja	hnāegan	hneigan	Cp. OE. hnigan II
hnaistan 80		g-neisti		g-neista	Prus. knaistis
hnaita 81		hneita	hnātan		Cp. OE. hnitan II
hrainja 82	hraineis	hreinn	hrān-deor	hreini	
hraiva 84	hraiv	hrāē	hrāw (hrāēw)	hrēo	Prus. krauja
hvaitja 94	hvaiteis	hveiti	hwāēte	weizi	Cp. OE. hwit
klaiitha 51		klāēdhi	clādh	kleit	Cp. Schade, Wb. 497
kvaina 53	qainon	kveina	cwānian		
laiba 271	leiba	leif	lāf	leiba	Cp. OE. lifan II
laida 270		leidh	lād	-leita	
		leidha	lāēdan	leitan	
laihna 269		lān	lāēn	lēhan	Cp. G. leihvan II
laika 260	laiks	leikr	lāc	leih	Cp. OE. lācan V
laisja 272	laisjan	lāēra	lāēran	lerran	Cp. G. leisan II

¹ See note, page 66.

OG.	G.	ON.	OE.	OHG.	COGNATES.
laisti 272	laists	leistr	lāst	leist	
laitha 270		leidhr	lādh	leid	Cp. OE. lidhan II
		leidha	lādhian	leidan	
maida 237	gamaiðs	(meidha)		ga-meit	
maida 238		meidhr			L. mēta, Skr. mēthi
maila 226	mail		māl	meil	L. malus. See note 1
maina 237		meinn	mān	mein	Lith. mainas, Skr. mē
maini	ga-mains		ge-māēne	ga-meini	L. communis
mais 227	mais	meir	mā	mēr	See note 2. L. magis
	maist	mest	mācst	meist	
maisa 224		meiss		meisa	Skr. mēsha
maitila 239		meitill		meizil	Cp. G. maitan V
maiva 224		mār	māw (māēwe)	mēh	
paida 167	paida			pfeit M.	Gr. βαίτη
raida 254		reidh	rād	reita	Cp. OE. ridan II
		(reidhi)		(-reiti)	
	ga-raids	g-reidhr	rād	ga-reit M.	
raiha 253		rā	rāh (rāēg-)	rēh	Cp. OHG. rihan II
raina 247		rein		rein	Cp. Skr. rēkhā (?)
raipa 247	raips	reip	rāp	reif	Gr. ραιβός (?)
raisan 255		reisa		reisa	Cp. OE. risan II
raisja 255	raisjan	reisa	rāeran		Cp. OE. risan II
saida 321			sāda	seito	Lith. sētas
saila 321	(sailjan)	seil	sāl	seil	O. Bulg. silo
saima 313		seimr	sāeme	seim	Gr. αἶμα
saina 313	(sainjan)	seinn	sāene	seine M.	Cp. L. sēro [Voc. 479
saira 313		sār	sār	sēr	See note 1. Lapl. sarje.
		sāera	sārian	sēran	[Wb. 757
saiva 313	saivs ¹	sāer	sāc	seu	Vedic, savam. Schade,
saivala 313	saivala	sāl	sāwl	sēula	Cp. G. saihvan Ia ²
saitha 322		seidhr			Lith. saitas
skaitha 335		skeidh	sceādh (āē)	skeida	Cp. G. skaidan V d
slaiva 358		sljāer (sljōr)	sleāw	slēu	[snīva II
snaiva 350	snaivs	snāer	snāw	snēu	L. nivis (nix). Cp. ON.
staina 347	stains	steinn	stān	stein	Cp. Gr. στείνος
svaina 365		sveinn	swān	swein	Cp. OHG. swīnan II
svaipa 365		sveipr		sweif	Cp. ON. svīpa II
svaita 365		sveiti	swāt	sweiz	Skr. svēda
		sveita	swāetan	sweizzan	L. sūdare
taihan 121		tā	tā	zēha	Cp. G. teihan II
taikna 114	taikns	teikn (tākn)	tācen	zeihhan	Cp. OHG. zic. Schade,
	taiknjan	tākna	tācnjan	zeihinen	Wb. 1239 [1239
taikura 114		tācor	tācor	zeihhor	Lith. deweris. Schade,

¹ See note, page 66.

² The elision of a consonant has caused the union of *a* and *i* to *ai* in *mais* and *saivala*.

OG.	G.	ON.	OE.	OHG.	COGNATES.
taina 121	tains	teinn	tān	zein	See note, page 66. Schade, 1241
taita 115		teitr	tāt	zeiz	Cp. Gr. θαίβαλος (?)
vai 279	vai	vei	wā	wē	L. vac, Lett. wai
vaibja 305		veifa		weibon	Cp. OE. wif
vaiga 280		veig	wācge	weiga	Cp. Schade, Wb. 1111
vaika 303		veik	wāc	weih	Cp. OE. wican II
		veikja	wāccan	weihhan	
vaina 280		veina	wanian	weinon	From vai [nāre
vaitha 302		veidhr	wādhu	weida	Cp. L. vēnāre, for vēt-
vraitha 309		reidhr	wrādh	reid	Cp. OE. wridhan II

OG. *ai* remains in G. and becomes *ei* in ON. except (1) Before *r*, and when final, or where *w* or *h* has been absorbed, we find *ā* or its umlaut *āē*. The cases are *ār*, *ārr*, *lāēra*, *mār*, *sār*, *sāēra*, *sārr*, *sljāēr* (*sljör*), *snāēr*; *ā* (*āē*), *āēvin*, *frāē*, *hrāē*, *tā*, *vā*; *sāl*, *lān*. (2) Before *ss* and *s* + consonant, *ā* occurs for the usual *ei* in *hāss*; *āē*, in *āēskja*, *āēsta*; *e*, in *flesk*, *mest*. (3) *klāēdhi* and *tākn* (also *teikn*) are unexplained.

OE. has *ā* or its umlaut *āē*; but *eā* may occur with *sl* (*slēaw*), and *āē* before *w* (*hlāēw*, *hrāēw*).

OHG. uses *ē* when final, and before *w*, *h*, *r*; elsewhere, *ei*.
os. has *ē* throughout.

AU.

OG. *au* is the third form of the *u*-ablaut, and is therefore found in the preterit of all verbs of Class III and of Class V, e, Transactions, XIV, pp. 65, 69. It is also used in these words from *u*-roots, except as noted below.

OG.	G.	ON.	OE.	OHG.	COGNATES.
auda 7		audhr	ēad	-ōt	
	audags	audhigr	ēadig	ōtac	
augan 6 ¹	auga	auga	ēage	ouga	L. oculus, Skr. akshi
		eygdr (eygr)	ēaged	(ougi)	From *agvan
auk 6 ¹	auk	auk	ēac	ouh	Cp. L. augēre, vigere

¹ OG. *au* is derived from *a*-roots in the following words: (a) By epenthesis: *augan* from *agvan*, *hrauma* from *karuma*, *laufa* from *lapva*, *mauja* from *magujā*, *mauri* from *maruja*, *taubra* from *dabhvara*. (b) By juxtaposition: *frauja* from *pravja*, *paruja* (see Schade, Wb. 200) and *thauh* from *tha-uh*. (c) From *ab* in *bauna*, **bavna*, **babna*. (d) From *va*, which became *av* in *auk* from *vag*.

OG.	G.	ON.	OE.	OHG.	COGNATES.
		auka	iecan	ouhhon	From * vak
aura 7	(aurahi(?))	aurr	ēar		
ausan 6	ausa	eyra	ēare	ōra	L. auris
austana 8		austan	ēastan	ōstana	
		austr	ēaster	ōstar	L. auster
autha 5	auths	audhr	ēadh	ōdi	L. ōtium
		eydha	iedhan	ōdjan	
bauga 213		baugr	bēah	bouh	Cp. OHG. biogan III
		beygja	biegan	bougen	
baukna 197		bākn	bēacen	bouhhan	Cp. Gr. <i>πιφύσκω</i>
bauna 197 ¹		baun	bēan	bōna	L. faber.
blauta 220		blautr	blēat	blōz	Cp. ON. blotna
blaudha 220	(blauthjan)	blaudhr	blēadh	blōdi	Cp. Gr. <i>φλαυρός</i>
brauda 218		braudh	brēad	brōt	Cp. OE. brēowan III
dauba 150	daubs	daufr	dēaf	toub	Cp. OE. dumb
	daubjan	deyfa	diefan	touben	[dhu
dauja 143	(divan)	deyja		towjan	O. Bulg. daviti. Root,
	dauths	daudhr	dēad	tōd	
	dauthus	daudhr	dēadh	tōd	
	dauthjan	deydh	diedan	tōden	
dauni 148	dauns	daunn		(toum)	L. fumus, Skr. dhūma
drauga 154		draugr		-drōg os.	Cp. OE. drēogan
drauma 152		draumr	drēam	troum	Cp. Gr. <i>θρέομαι</i>
		dreyma	drieman	trouman	
drausa 155		dreyri	drēas	trōr M.	Cp. OE. drēosan III
flaugja 195	flaugjan	fleygja	fiegan	vlougen	Cp. OE. flēogan III
flauhi 192		fiō	fiēah	fiōh	Cp. OE. flēon III
flauma 194		flaumr	flēam	floum	Cp. Lith. plauti
flautja 195		fleyta		flōzzan	Cp. OE. flēotan III
fraujan 178	frauja	freyja	frēa	frō	See note 1. Cp. Skr. purvas
gauka 97		gaukr	gēac	gouh	Skr. ghūka
gauma 97		gaumr	gēame	gouma	
		geyma	gieman	goumjan	
gaupna 108		gaupn	(gēap)	goufana	Cp. OE. gēopan III
gaura 97	gaurs			gōrag	Skr. ghōrata
glauma 113		glaumr	glēam		Cp. OE. glēow
hauga 77		haugr		houc M.	
hauha 76	hauhs	hār	hēah	hōh	Lith. kaukas
	hauhitha	haedh	hēahdhu	hōhida	
hauja 57	havi	hey	hiēge	houwi	Cp. OE. hēawan V
hauna 57	hauns		hēan	hōna	Lett. kauns
haupa 77		hopr	hēap	houf	Cp. Skr. kup
haus		hauss			Skr. kōsha
hausja 58	hausjan	heyra	hiēran	hōran	Cp. Schade, Wb. 417

¹ See note, page 147.

OG.	G.	ON.	OE.	OHG.	COGNATES.
hlauni 86		hlaun			Lith. szlaunis
hlausa 90				hlōsen	Lith. klausýti
hrauma 85		romr	hrēam	hrōm	See note 1. Cp. Skr. karuna
laubja 278	laubjan	leyfa	liefan	louban	Cp. L. lubet
lauda 277	lauds			lōt M.	Cp. OE. lēodan III
laufa 261	laufs	lauf	lēaf	loub	Lith. lāpas. Seenote 1
lauga 260		laug		louga	Cp. L. luo
laugna 276		laun		lougen	Cp. OE. lēogan III
	laugnjan	leyna	liegnan	louganen	
lauha 275			lēah	lōh	L. lūcus
lauka 260		laukr	lēac	lauh	Cp. OE. lūcan III
launa 260	laun	laun	lēan	lōn	L. lū-crum
laupa 260		laupr	lēap		
lausa 273	laus	lauss	lēas	lōs	Cp. OE. lēosan III
mauja 228	mavi	maer			From G. magus. See note 1 [note 1
mauri 225		maurr	mīere	mīre LG.	O. Bulg. mravij. See
naudi 156	nauths	naudh	nēad	nōt	O. Prus. nauti
nauta 165		naut	nēat	nōz	Cp. OE. nēotan III
		nauta	gē-nēat	gi-noz	Cp. OE. nēotan III
rauba 258	-raubon	raufa	rēafian	roubon	Cp. OE. rēofan III
		raufari	rēafer	roubari	
rauda 257	rauds	raudhr	rēad	rōt	Lith. raudā
raukja 256		reykja	(rēac)	rouhhan	Cp. OE. rēocan III
rausa 247	raus	reyrr		rōr	Schade, Wb. 722
rauta 257				rōz	Lith. rauda, Skr. rōda
sauila 324	sauil	sōl	sōl		L. sōl, Skr. sūrjas
sauma 327		saumr	sēam	soum	Cp. G. siujan
sausa 327		saurr	sēar	sōr MG.	Lith. sausas
skauta 337	skauts	skaut	scēat	scōz	L. cauda
snautha 349		snaudhr	(sniedhjan)	snoede M.	Cp. OHG. snūdan III
staura 342		staurr			Gr. <i>στραυπός</i>
staupe 343		staupe	stēap	stoupe	Cp. OE. stēop
strau 346	straujan	strā	stréow	strawjan	L. struere
strauma 349		straumr	strēam	stroum	Lith. stráume
taubra 115		taufr	tēafor	zoubar	See note 1, and Schade, Wb. 1295
tauha 123		taug	tēag		Cp. G. tiuhan III
		teygja	tiegan	zōhan	
tauja 115	taujan	(tōl)	tawjan	zawjan	Gr. <i>δέρω</i>
tauma 115		taumr	tēam	zoum	From tauja
thauh 127	thauh	thō	thēah	doh	Rt. tha-uh. See note 1
thaua 135		theyr	thēaw	dou	Cp. Skr. tu
thautja 137		theyta	-thietan	dōzōn	Cp. OE. thūtan III

¹ See note, page 147.

OG.	G.	ON.	OE.	OHG.	COGNATES.
thrauta 141		thraut	thrēat	drōz	Cp. OE. thrēotan III
		threyta	thrēatian	drōzan	
traua 125	trauan	trúa	trūwian	trūēn	Cp. OE. trēowe
trausta 125	trausti	traust		trōst	From traua
		treysta		trōsten	

OG. *au* remains *au* in G., except that before a vowel it is written *av*. In ON., *au* and its umlaut *ey* are regular, but *ō*-final occurs in *flō, thō*: *ō* occurs, also, in *hōpr, rōmr, sōl, tōl*; *ū* is found in *trúa*; *ā* in *bākn, hār*, and its umlaut in *hāēdh, māēr*. In OE., *ēa* and its umlaut *īe* are always used, except in *tawjan, sōl, truwian*,—all contractions. In OHG., *ō* is used before *d, t, s, z, n, r*, and *h* when it stands for OG. *h*; elsewhere *ou* is used: exceptions are *hrōm, dōh, strawjan, zawjan, towjan, trūēn*, and *hewi* (also *houwi*).

ō.

OG. *ō* stands in ablaut relations to IG. *a*, though it is not easy to see by what process it was developed. Scherer's *Deutsche Sprache* (249–267) contains a full discussion of the matter, to which I have nothing to add, though I cannot regard it as final.

OG. *ō* occurs in the preterit of verbs of Class IV—as given in Transactions, XIV, 66—and in their derivatives; but it is used, also, for IG. *an*, and for *av*, which, however, as we have seen, usually gives *au*. It also represents an IG. final *ā* which may afterward become medial, though, as we have seen, this is usually preserved as *ā* in OG. A few words still await an explanation.

1. The following words stand in ablaut relations:—

OG.	G.	ON.	OE.	OHG.	COGNATES.
bōka 198	bōk	bōka	bōc	buoh	Gr. φηγός, φαγεῖν
bōna 201		bōn-	bēn		L. fānum. Cp. OE. ban- nan V.
bōta 199	bōt	bōta	bōte	buoza	Cp. G. batisa
dōga 144	-dōgs	dōēgr	dōgor		Cp. OE. daeg
dōlja 146		dōēl		tuolla	Cp. OE. dael
fōdja 168	fōdjan	fōēda	fēdan	fuottan	Cp. OE. faeder
	fōdr	fōdr	fōdor	fuotar	

OG.	G.	ON.	OE.	OHG.	COGNATES.
		fōstr	fōstor		
fōrja 174		fōēra	fēran	fōrian OS.	Cp. OE. faran IV
fōtu 172	fōtus	fōtr	fōt	fuoz	Cp. OE. faer
frōða 190	frōths	frōdhr	frōd	fruot	Cp. G. frathjan IV
gōða 98	gōds	gōdhr	gōd	guot	Cp. OE. gaedeling
hōba 63	(gahōbeins)	hōf	hōf	huoba	Cp. OE. hebban IV
hōfa 80		hōfr	hōf	huof	Cp. OE. capha, OG. hoba
hōga 60		hōgr	hōg		Cp. OE. hagian
hōla 73	(hōlōn)	hōl	hōl	(huoljan)	Cp. OHG. halōn
hōna 61		hōēna		huon	Cp. OE. hana
hōpa 62		hōp	hōp		Cp. OE. haep
hrōfa 83		hrōf	hrōf		Cp. ON. hraf
hvōta 92	hvōta	hōt		hōti OS.	Cp. OE. hwaes
lōfan 96	lōfa	lōfi (glōfi)	lōf (glōf)		Slavic lapa
ōbja 20		ōefa		uoban	Cp. OE. ab-al
ōga 12	ōgan	ōa-st			Cp. G. agan IV
ōthala 14		ōdhal	ēdhel	uodal	Cp. OE. adhol
rōka Voc. II, 164		rōekja		ruohhan	Slavic raciti
snōrja 351	snōrjō	snōeri		snuor	Cp. ON. snara
tōma 124		tōmr	tōme	zuomi	Cp. OE. tam
		tōēma		tōmjan OS.	
vōða 308	vōds	ōdhr	wōd	wuot	Cp. OE. wadan
		Ōdhinn	Wōden	Wuotan	
vōsa 301		vōs (vas)	wōs		Cp. OHG. wasan IV
vrōta 294	(vratōn)	rōta	wrōtan	ruozjan	See Schade, Wb. 1208
		rōt	wrōt		
vōkra 281	vōkrs	ōkr	wōcer	wuochar	Cp. OE. wacan IV

2. OG. *ō* is from *an* in the following words:—

OG.	G.	ON.	OE.	OHG.	COGNATES.
flōka 193	fai-flōk			fluohhan	L. plango
ganōha 157	ganōhs	gnōgr	genōh	ganuoh	Cp. L. nanciscor
mōða 242	mōds	mōdr	mōd	muot	L. mens, Gr. <i>μαρ-μω</i> ¹
mōta 242		mōt	-mōt	muoz	Cp. Gr. <i>μνδρα</i> , Slavic mandurā
	ga-mōtjan	mōēta	mōtan	muoten LG.	
rōva 246		rō	rōw	ruowa	Cp. G. rimis, Skr. ran

3. OG. *ō* is from *av* (*ava*) in the following words, of which *dōka* has *av* for *va* by metathesis.

OG.	G.	ON.	OE.	OHG.	COGNATES.
dōka 152		dōkr		tuoch	Cp. Skr. dhvaja
flōa 180		flōa	flōwan		Cp. OE. flēotan III
		flōrr	flōr	fluor	Lith. plau-ti

¹ If *mōða* is connected with *μαρμω*, the *ō* is due to final lengthening, and the word should appear under 3.

OG.	G.	ON.	OE.	OHG.	COGNATES.
fōna 188	fōdus fon (fūnins)	fōdh	fōd	fluot	Skr. pavanam ¹ [χαῦνος Cp. OHG. gouma, Gr. Lith. kūrwa. Rt. kar Gr. κπαυρός
gōma 106		gōmr	gōma	guomo	[525 Rt. gan-vi. Schade, Wb.
hōra 80		hōrr	hōr-ing	huor	Skr. gaus, Lett. guws
hrōka 85	(hrukjan)	hrōkr (hraukr)	hrōc	hruoh	Skr. savanas, L. sānus
kōnja 41		kōenn	cēne	kuoni	
kōvi 38		kūr	cū	chuo	
sōna 329		sōn		suona	

4. In the following words *ō* stands, or once stood, at the end of a root, and was lengthened while there. A suffix afterward added may make this *ō* medial, even in IG.

OG.	G.	ON.	OE.	OHG.	COGNATES.
blōda 222	blōth	blōdh blōdhugr	blōd blōdig	bluot bluotig	Cp. L. flos. Root bhrā, from bhar
blōman 222	blōma	blōmi	blōma	bluomo	
blōtan 222	blōtan	blōta	blōtan	bluoan V	
bōgu 214		bōgr	bōg	buog	Skr. bāhu
brōthar 204	brōthar	brōdhir	brōdhor	bruodar	Skr. bhrātar
dōma 151	dōms dōmjan	dōmr dōēma	dōm dēman	tuom tuomjan	Cp. Skr. dhā
fedvōr 184	fidvōr	fjōrir	fēower	fior	Skr. katvāras
frō 178				fruo	Skr. pra, Gr. πρῶλ
glō 104		glōa glōdh	glōwan glēd	gluoan gluot	Rt. glā, from gal
grō 112		grōa grōenn	grōwan grēne	gruoan gruoni	Rt. grā, from gar
hōstan 95		hōsti	hwōsta	huosto	Cp. Skr. kās
hrōpan 86	hrōpjan	hrōēpa	hrōpan	hruofan	Rt. krā, from kar
hrōrja 86		hrōera	hrēran	hruorjan	Rt. krā, from kar
hrōtha 85	(hrōtheigs)	hrōdhr	hrēdh	Hruod-	Rt. krā, from kar
knōda 40	knōds		(cnōsl)	knōt	Rt. gnā, from gan
mōdar 242	(-mōdrja)	mōdhir	mōdor	muotar	Skr. mātar
mōtha		mōdhr mōedhi	mēdhe	muodi muodi	Rt. mā. Cp. OHG. muojan
rōja 259		rōa rōdhr	rōwan	ruejen M. ruodar	Rt. rā, from ar Cp. L. rēmus
rōja 251		-rōenn		-rōni	
sō 310	sō	sū			Skr. sā, Gr. ῥ
spōan 355			spōwan spēd	spuoan spuot	Skr. sphā. Schade, Wb. 860

¹ G. *fōn*, gen. *fūnins*. Usually *ō* alternates with *au*; as in G. *taui*, *tōjis*; *stōjan*, *stauīda*; OHG. *stuoan*. Cp. Scherer, Deutsche Sprache, 298, note; Schade, Wb. 213; Braune, Got. Gram. § 26.

OG.	G.	ON.	OE.	OHG.	COGNATES.
stōdi 341		stōdh		stuot	Rt. stā, L. stāre Skr. sthāman
	stōma				Lith. storas
		stōrr			Gr. στήλη
	stōls	stōll	stōl	stuol	(stuowen M.) Lith. stovā
			stōw		L. suavis, Skr. svādu
svōtja 361		sōētr	swēte	suozi	Lith. da, O. Bulg. do
tō 124 ¹			tō	zuo	Rt. vā-p. Cp. OE. wāwan
vōpa 308	vōpjan	ōēpa	wēpan	wuofan	
		ōp	wōp	wuof	

5. The following are of questionable origin :—

OG.	G.	ON.	OE.	OHG.	COGNATES.
bōban 214		bōfi		Buobo	See Kluge, Wb. 41
brōka 219		brōk	brōc	bruoh	Cp. L. brāca (?)
klōka 53		klōkr		kluoc M.	See Schade, Wb. 500
skōha 338	skōhs	skōr	scō (sceō)	scuoh	Cp. G. skēvjan (?)
vōsta 308			wēste	wuosti	Cp. L. vastus (?)
vrōka 310	vrōhs	rōg	(wrōht)		
	vrōhjan	rōegja	wrēgan	ruogan	

OG. *ō* remains *ō* in G., ON., and OE. The umlaut in ON. is *ōē*; in OE., *ē*. In OHG. we have *uo* (*ō* in *-rōni*, *cnōt*, also *cnuat*; *o* in the contraction *fior*). The change of G. *ō* to *ū* has been already noted. ON. *kȳr*, OE. *cū*, plural *cȳ*, and OE. *feower* are irregular: in one case owing to the absorbed *w*; in the other, to lack of accent.

U.

OG. *ū* is formed (1) from a vowel + nasal (*am*, *an*, *um*, *un*); (2) from a contraction of *a* with *w* or *v*; (3) from *u*, by liquid influence; (4) from *u* lengthened, when final.

I. *a* or *u* + nasal gives *ū* in, —

OG.	G.	ON.	OE.	OHG.	COGNATES.
am. dūban 150	dūbo		dūfa	tūbā	Skr. kadambā
jū (ju)	jū		geō		L. jam. Voc. I, 150
an. fūsti 187			fȳst	fūst	Skr. pankti. Voc. I, 167
hrūtan 85		hrjōta	hrūtan	rūzzan	Skr. krandati [167
mūka 239	mūka	(mjūkr)	(mēoc)	(mūhhan)	O. Bulg. maciti. Voc. I,
mūla	(mūljan)	mūli		mūla	Cp. L. manūs [898
sūsula 328		sȳsl	sūsl		Cp. G. suns. Schade, Wb.
thūsundja 137	thūsundi	thūsund	thūsund	dūsunt	Cp. G. thinsan
um. hūfan 78		hūfa		hūbā	Skr. kumba

¹ It is doubtful if the lengthening in *tō* is not post-Germanic; for in OHG. we find also *sa*, *se*, *si*. Cp. Schade, Wb. 1221.

OG.	G.	ON.	OE.	OHG.	COGNATES.
un. būka 212		būkr	būc	būh	Cp. L. fungor
skrūda 339		skrūdh	scrūd		Prus. skrundus
. thrūgan Voc. I, 168		thrūga		(drūh)	Cp. OHG. dringan

2. OG. *ū* is found for *eu* in the presents of some verbs of Class III (*brūcan, lūcan, lūtan, sūgan, sūpan*). This is fully discussed in Schmidt's *Vocalismus*, I, 143, *seq.* Scherer, *Deutsche Sprache*, 248, suggests that these may in every case be from nasalized *a*-stems, and so allied with the words in 1. Besides these cases, *av* and *va* become *ū* in these words:—

OG.	G.	ON.	OE.	OHG.	COGNATES.
av. būa 212		bū	bū	bū	Skr. bhavana
	(bauan)	by	būan	būan	Skr. bhavāmi
		būdh		buode m.	
		būr	būr	būr	
brūna 216		brūn		brūne m.	Cp. OHG. brāwa
jūnha 244	juggs	ungr	geōng	jung	L. juvencus, Skr. juvaka
rūna 258	rūms	rūmi	rūm	rūmi	Cp. L. rūs. Root ru
rūna 258	rūna	rūnar pl.	rūn	rūna	Cp. L. rūmor. Rt. ru
		rūna	rūnian	rūnen	
skūma 336		skūm		scūm	Rt. sku
skūra 336	skūra	skūr	scūr	scūr	L. ob-scūrus, caurus
trūan 125	trauan	trūa	trūwan	trūen	Cp. OE. trēowe
va. sūli 363	sauls	sūla		sūl	Cp. OE. swelan
thū 134	thū	thū	thū	dū	Skr. tvam
ūra 35		ūr			Gr. <i>δυρον</i> . Cp. OE. waer
ūt 33		ūt	ūt	ūz	Cp. Gr. <i>ὑσ-τερον</i>

Several words in this list might owe their *ū* to final lengthening, and so fall under 4.

3. *l* or *r* sometimes seem to lengthen *u* to *ū*; but it is possible to bring these cases under 4 or 2, for the most part.

OG.	G.	ON.	OE.	OHG.	COGNATES.
brūdi 217	brūths	brūdhr	brūd	brūt	See Voc. II, 288
brūkan 218	brūkjan		brūcan	brūhhan	L. fruor
brūna 218		brūnn	brūn	brūn	Gr. <i>φρόνη</i>
hlūda 89			hlūd	hlūt	Gr. <i>κλυτός</i> . Voc. II, 453
sūra 327			sūr	sūr	Lith. surus. Voc. II, 281

4. Final lengthening may have taken place in several words in 2 and 3: it is more certainly the case in the following words:—

OG.	G.	ON.	OE.	OHG.	COGNATES.
dū 148		dýja			Skr. dhū, Gr. <i>θύω</i>
fūla 186	fūls	fūll	fūl	fūl	Lith. pulis. Root pu
hūdi 78 ¹		hūdh	hydh	hūt	L. cutis. Rt. sku
hūsa 79 ¹	hūs	hūs	hūs	hūs	L. cūria. Rt. sku
lūa 273		lýja			Gr. <i>λύω</i> , Skr. lū
		lūs	lūs	lūs	
mūsi 241		mūs	mūs	mūs	L. mūs, Skr. mūsh
nū 164		nū	nū	nū	L. nū or nu
sūi 324		syr	sū	sū	Gr. <i>σεύω</i> , Skr. suvati
tūna 122		tūn	tūn	zūn	Cp. L. dūrus

5. Initial *u* is lengthened in *ūdra* 33, ON. *jūr* (*jūgr*), OE. *ūder*, OHG. *ūter*, Gr. *οὐθαρ*, *Lūber*, Skr. *ūdhar*; *ūra* 35, ON. *ūr* (*ūri*), OHG. *ūro*, Gr. *οὐρος*, L. *ūrus*.

OG. *ū* remains *ū* in all cases except when changed by umlaut to *y* in ON. and OE., and except also in G. *juggs*, *sauls*, *trauan*, ON. *ungr*, *hrjóta*, OE. *geōng*, *geō* (*gio*, *giu*, *ju*), OHG. *jung*.

SECTION II. — OLD ENGLISH LONG VOWELS.

OE. *ī* is derived from OG. *ī*, as appears in the last section. It is used also for OG. *i* and *e* + nasal in *swīdh*, G. *svinth* 365; *līdhe*, OHG. *līnd*, from *līnan*, I, c, 263; *fīf*, G. *fīmf*, and in the compounds of *fīf* (*fīfta*, *fīftel*, etc.).

OE. *īe* — or, as it is often written, *y* — is the umlaut of *ēa* and *ēo*, and corresponds therefore, in the main, to OG. *eu* and *au*, as appears in the last section. It is used, also, as umlaut of OG. *ahv* or *av* in *īege*, *hīege* (Transactions, XII, 79), of OG. *ev* in *trīewe*, of OG. *ij* in *fīend*.

OE. *ē*, which after *c*, *g*, *sc*, may be written *iē*, is commonly the umlaut of *ō*, as is seen in Section I, and in inflections (*fēt*, *tēdh*, *brēdher*, *mēder*, etc.). It occurs, also, as umlaut of OG. *ā* in *cwēn*, *cwēme*, *wēn*, *mēce*, *Ælf-rēd*; as umlaut of *an* in *ēst*, *hēla*, *nēdhan* (Transactions XII, 79); for OG. *eha* in *tēn* (*tīen*, *tīon*, *tīyn*); for OE. *eg* in *gēn*, *rēn* (*gegn*, *regn*).

OE. *ēa* corresponds regularly to OG. *au* (see Section I). It is used, also, for *av* in *dēaw*, *fēawe*, *glēaw*, *hēawan*, *hrēaw*, *strēaw*

¹ In *hūdi* and *hūsa* the *ū* is confined to the Germanic, and is by some attributed to k-epenthesis.

(*strēow*) (see Transactions, XII, 77); for *ah* in *ēa*, *bēam*, *flēan*, *gēan* (*gēn*), *slēan*, *tēar* (*tāēr*), *thwēan* (see Transactions, XII, 78); for *ā* in *brēaw*, *frēa*, *hrēaw*, *nēah*, and irregularly, also, in *lēast* (*lāst*).

OE. *ēo* corresponds regularly to OG. *eu* (see Section I). It is used, also, for various OG. vowels before *w*: for *ew* in *hnēow*, *trēo*, *trēowdh*, *trēowe*; for *iw* in *fēower* and compounds, and in *snēowan*; for *aw* in *strēow* (*strēaw*); for *īw* in *bēo*; for *āw* in *clēo* (*clāwu*), *hrēow*, *hrēowan*.

OE. *ēo* is also used for *eh* in *fēo*, *hwēol* (*fēoh*, *hwēogul*); for *en* in *lēoh*t, ON. *lēttr*, G. *leihts*, Lith. *lengvas*; for *ij* in *fēon*, ON. *fjā*, G. *fijan* and its present participle *fēond* (*fīend*); for *ī* in *frēo*, G. *freis*, ON. *frī*, and its derivatives *frēon*, *frēond*.

OE. *āē* is the regular representative of OG. *ā*,—except before *w* and nasals,—and the umlaut of OG. *ai*, OE. *ā*. After *c*, *g*, *sc*, *eā* is found for *āē*; as in *geāfon*, *sceādh* (*gāēfon*, *scāēdh*). *ā* is also frequently used before *g* for *āē*; and this grows more frequent with the growth of the language. Thus, we find *māgas* for *māēgas*, *wāgon* for *wāēgon*, etc. *āē* is used for *ē* in *hāēle*, for *ēa* in *tāēr*: on the other hand, we have *ē* for *āē* in *grēdig*, *mēce*, *Ælf-rēd*, *hēst*, *fēmne*, *wēge*; though *grāēdig*, *hāēst*, *fāēmne*, *wāēge* also, though rarely, occur.

OE. *ā* represents OG. *ai* when not subject to umlaut, and OG. *ā* before nasals and *w* + vowel. It occurs, also, as *eā* for OG. *ā* after *g*, and with increasing frequency for the regular *āē* before *g*. OE. *ā* is also lengthened from *a* when final (see Transactions, XII, 73), in *bā*, *hwā*, *swā*, *twā*, and perhaps also *ā*, *geā*. We find *ā*, where we should expect *āē*, in *hār*, *tālu*, *sāl* (*sāēl*), *lācnian* (*lāēcnian*), and occasionally in other words.

OE. *ō* (*eō*) stands for OG. *ō* regularly: but it is also used for OG. *ā* before nasals in *mōna*, *mōnadh*, *cōmon*, and also in *thrōwian* and *nōmon* (*nāmon*); for OG. *o* in *dōhtor*; for *au* in *sōl*; for *ū* or *u* in *geō* and *geōng*. OE. *o* is from OG. *an* in these words (see Transactions, XII, 77): *fōn*, *gōs*, *hōh*, *hōn*, *ōdher*, *ōs*, *sōdh*, *tōdh*, *brōhte*, *thōhte*; and in *ōdh*, G. and OHG. *ant-*, *ent-*; *wōh*, G. *vāhs*, OS. *wāh*, ON. *vangr*; cp. G. *vaggs*, OE. *wang-*.

OE. *ū* is the representative of OG. *ū*. It is used, also, for OG. *eu* in the present of some verbs of Class III. These are

būgan, lūtan, smūgan, strūdan, thūtan. In other verbs, the *ū* is already OG. Such are *brūcan, dūfan, crūdan, hrūtan, lūcan, sūpan* (see Transactions, XIV, 65). OE. *ū* for *on* occurs in *fūs, gūdh, mūdh*, OHG. *funs, gund, mund*; for *un*, in *hūs, scūdan, sūdh*, G. *hunsl*, ON. *skynda*, OHG. *sund*. OG. *ōv* gives *ū* in *cū*; *ov* becomes *ū* in *snūd* (cp. OE. *snēowan* III, G. *snivan* I a, and OE. *snowan*); *uv* becomes *ū* in *scūa*, OHG. *scuwo*, ON. *skuggi* and *scūwan*, OHG. *scūan*.

OE. *ȳ* is the umlaut of OE. *ū*, from whatever source. It occurs in inflection in such forms as *lȳs, mȳs*, and in the second and third present indicative singular of verbs of Class III, with *ū* in the infinitive. It is also the umlaut of OG. *on* or *un* in *fȳsan, ȳce, ȳdh*; with which compare OHG. *funs*, L. *anguis, unda*.

OE. *ȳ* is often written for *īe* or *īē* (see under *īe* and *ē*, above).

If we contrast the results of this study with those on the short vowels which have preceded it in Vols. XII, XVI, and XVII of the Transactions, we shall be struck first by the lateness and variety of origin which the long vowels display, and second by the tenacity with which they maintain themselves and the regularity of their development in every Germanic dialect; but, most of all, we note how the ablaut permeates the whole structure of the language, influencing the nominal forms hardly less than the verbal, and rarely allowing the derivatives of any root to pass from its natural ablaut.

NOTE. — Dr. Wells being out of the country at the time when this article went to press, the proofs have not been revised by him. — EDITOR.

THE ARCADO-CYPRIAN DIALECT. — *ADDENDA.*



In the interval between the completion of my paper on the Arcado-Cyprian dialect and its publication, I have collected the following *addenda*.

Page 61, note. The verb *φέχω* derives additional confirmation from the Cyprian *ἔφεξε* (*Studia Nicolaitana*, p. 67). This (*φ*)*έχω* appears in *γαίθοχος*, and is to be distinguished from (*σ*)*έχω*.

Page 75, note 3. Read *Eubæan*. On the pronunciation of *οι* in Styra, see Bechtel, *Inschriften des ion. Dialekts*, pp. 17, 37.

Page 80. The instance of Cretan *ἰν cum accus.* might recall the supposed case of *ἰν cum accus.* in Laconian (*ἐλ Λακεδαίμονα*, Cauer 26_g). This is however = *ἐς Λακ.*

Page 92. Brugmann (*Grundriss*, § 131) maintains that *ἀμείνων* is from *ἀμεν-ων* by compensatory lengthening. Brugmann, as well as Meister, takes no account of the character of the diphthong in Attic inscriptions (*ἀμΕΙνων*). Brugmann (§ 639), following Osthoff, even goes so far as to refer the genuine EI of *ὀλείζων μείζων* to the influence of *ἀμείνων*, which, on his view, must have a spurious EI.

Page 95. I now prefer to explain *δαμοργοί* as arising from *δαμιο(ε)ργοί*. There are three methods of treating compounds whose final member is *-εργος* or *-εργης*. See Bechtel, *Inscr. des ion. Dial.* p. 190.

A. Non-contraction of the vowels in contact. *ὄβριμοεργῶν*, Callinus 3; *ἀγαθοεργοί*, Hdt. A 67, etc.; *λυκιοεργέας*, Hdt. H 76, cf. A 65 hexam.

B. By contraction of the vowels.

1. *παναλουργέα*, Xenoph. 3_g; *ἵπουργημάτων*, Hdt. A 137. *Τηιουργός*, *μιλησιουργής*, *χιουργής* in the Delian inventory of the temple of Apollo (Dittenb. *Sylloge*, 367); *λυκοῦργος*, Styra, 19₁₅.

2. *καρικευργέος*, Anacr. 91.

C. By expulsion of one of the vowels.

1. *ἀλοργήν*, Samos, 220_{15, 16, 19}, and *ἀλοργάς*, *ἀλοργά*, *ἀλοργοῦς*, *ἀλοργοῦν*, *παναλοργές δημοργοῦ* in the same inscription; *ἱροργία*, Hdt. E 83 (in Mss. *A B C*). Cf. *Ὀλόντιοι* in Cretan, *Ὀπόντιοι* in Locrian, *Ξελινόντιος* Coll. *Samml.* No. 3044.

2. *δημεργός*, Nisyros (Dittenb. *Syll.* 195); *λινεργής*, Lycoph. 716.

Page 97. The form [έλλανο]δικόντοι should also appear under a separate section (cf. p. 112), illustrating the disappearance of the ε of εο in contract verbs. This phenomenon is foreign to Cyprian, and occurs in Arcadian only in this word. See G. Meyer, Gramm. § 151.

Page 104. Instances of ορ, ρο = αρ, ρο, even in Ionic, show how weak the hold of Aeolic is upon these forms. Βρόταχας, Panticapaion 117, Ephesus (Wood, *Discov. at Eph.* App. 2, no. 2), in Xenophanes, according to the *Et. Mag.*, and in the name of a Gortynian, Simonides Ceos 127, is equivalent to βράταχος = βάτραχος, Germ. *Kröte*; πορδακίσιν, Sim. Amorg. 21 = Attic παρδακός. Archil. (140) has παρδοκόν, and Hdt. βάτραχος or βάθρακος.

Page 108. Cf. Cyprian υίφει, *Athenaeum*, 1882, No. 2847, p. 644.

Page 111. In reference to the Cyprian genitives Εδφαγώρω and Ἀμύντω, ascribed by Meyer to Ionic influence, it should be said that in no Ionic inscription, except Halic. 240 B 3, is there a genitive in -αγώρω. We find Ἀμύντω, Halic. 240₂₀, and Ἀμύντω, Iasos 104_{21, 24}. For the Ionic genitives in -ω of Bechtel, *Inscr. des. ion. Dial.* p. 109.

Page 111. ἔρη, quoted from an inscription from Miletus, has, according to Bechtel (on No. 100), nothing to do with οῦρά, but is = Lat. sūra. Cf. Schol. H. Q. on Od. μ 89.

Page 112. Third line from end, insert before *inter* the word *littera*.

Page 114. On αλλος, cf. Brugmann, *Grundriss*, § 639.

Page 114. ἔρμωλα α' ὑποδήματα, Κύπριοι and ἔρμωλα ἑρτώματα, Ἀρκάδες do not prove the interchange of ω and υ.

Page 118. The vocative δέσποτε, *Bull. Corr. Hellen.* III. 165, No. 7, 2 is noticeable.

Abbreviations: *Hall. Rev. A. O. S.* = Hall's Review of Deecke's Collection, in the eleventh volume of the Journal of the Amer. Orient. Soc. *G. G. A.* = Göttinger Gelehrte Anzeigen.

H. W. S.

AUGUST 1, 1888.

APPENDIX.

- I. PROCEEDINGS OF NINETEENTH ANNUAL SESSION,
BURLINGTON, 1887.
- II. TREASURER'S REPORT (p. viii).
- III. LIST OF OFFICERS AND MEMBERS (p. xxxix).
- IV. CONSTITUTION OF THE ASSOCIATION (p. li).
- V. PUBLICATIONS OF THE ASSOCIATION (p. liii).

**MEMBERS IN ATTENDANCE AT THE NINETEENTH
ANNUAL SESSION.**

Cyrus Adler, Johns Hopkins University, Baltimore, Md.
Frederic D. Allen, Harvard University, Cambridge, Mass.
Sidney G. Ashmore, Union College, Schenectady, N. Y.
Matthew H. Buckham, University of Vermont, Burlington, Vt.
Charles J. Buckingham, Poughkeepsie, N. Y.
Edward P. Clapp, Illinois College, Jacksonville, Ill.
Herbert M. Clarke, Nashota, Wis.
William T. Colville, Kenyon College, Gambier, Ohio.
William Wells Eaton, Middlebury College, Middlebury, Vt.
L. H. Elwell, Amherst College, Amherst, Mass.
J. E. Goodrich, University of Vermont, Burlington, Vt.
William Gardner Hale, Cornell University, Ithaca, N. Y.
Isaac H. Hall, Metropolitan Museum, Central Park, New York, N. Y.
Hans C. G. von Jagemann, Indiana University, Bloomington, Ind.
Morris Jastrow, Jr., University of Pennsylvania, Philadelphia, Pa.
Francis A. March, Lafayette College, Easton, Pa.
William A. Merrill, Belmont College, College Hill, Ohio.
Edward P. Morris, Williams College, Williamstown, Mass.
C. K. Nelson, Brookeville Academy, Brookeville, Md.
W. B. Owen, Lafayette College, Easton, Pa.
Ernest M. Pease, Bowdoin College, Brunswick, Me.
Rufus B. Richardson, Dartmouth College, Hanover, N. H.
Julius Sachs, Classical School, 38 West Fifty-ninth St., New York, N. Y.
W. S. Scarborough, Wilberforce University, Wilberforce, Ohio.
C. P. G. Scott, 76 Fifth Ave., New York, N. Y.
Thomas D. Seymour, Yale University, New Haven, Conn.
E. G. Sihler, Classical School, 38 West Fifty-ninth St., New York, N. Y.
Martin Luther Rouse, 22 Surrey Place, Toronto, Canada.
William D. Shipman, Buchtel College, Akron, Ohio.
Herbert Weir Smyth, Johns Hopkins University, Baltimore, Md.
Morris H. Stratton, Salem, N. J.
Alfred C. True, Wesleyan University, Middleton, Conn.
John Henry Wright, Harvard University, Cambridge, Mass.

[Total, 33.]

AMERICAN PHILOLOGICAL ASSOCIATION.

BURLINGTON, VT., Tuesday, July 12, 1887.

THE Nineteenth Annual Session was called to order at 3.30 P.M., in the Marsh Room of the Billings Library of the University of Vermont, by one of the Vice-Presidents of the Association, Professor Isaac H. Hall, of the Metropolitan Museum of Art, New York, N. Y.

The Secretary, Professor John H. Wright, presented the following report of the Executive Committee : —

a. The Committee had elected as members of the Association :¹

W. J. Alexander, Professor of English Literature, Dalhousie College, Halifax, N. S.

Louis F. Anderson, Professor of Latin and Greek, Whitman College, Walla Walla, Washington Ter.

E. J. Badgley, Professor of Oriental Languages, Victoria College, Cobourg, Ont.

A. J. Bell, Adjunct Professor of Classics in Victoria College, Cobourg, Ont.

— E. C. Bissell, Professor in Hartford Theological Seminary, Hartford, Conn. —

Rev. C. W. E. Body, Provost of Trinity College, Toronto, Ont.

Rev. Algernon Boys, Professor of Classics, Trinity College, Toronto, Ont.

H. S. Bridges, Professor of Classics, University of New Brunswick, Fredericton, N. B.

James W. Bright, Instructor in English, Johns Hopkins University, Baltimore, Md.

Jabez Brooks, Professor of Greek, University of Minnesota, Minneapolis, Minn.

Walter H. Buell, Scranton, Pa.

Henry Clarke, late Fellow in Greek, Johns Hopkins University, Baltimore, Md.

W. C. Collar, Head-Master, Roxbury Latin School, Boston, Mass.

Hermann Collitz, Associate Professor of German, Bryn Mawr College, Bryn Mawr, Pa.

Rev. George Cornish, Professor of Classics, McGill College, Montreal, P. Q.

T. F. Crane, Professor of Romance Languages, Cornell University, Ithaca, N. Y.

Rev. W. Craven, Principal of Knox College, Toronto, Ont.

William Dale, Lecturer in Latin, University College, Toronto, Ont.

Herbert C. Elmer, late Fellow in Latin, Johns Hopkins University, Baltimore, Md.

¹ In this list are included the names of all persons elected to membership at the Nineteenth Annual Session of the Association. The addresses given are, as far as can be, those of the winter of 1887-88.

- William Everett, Head-Master of Adams Academy, Quincy, Mass.
 H. R. Fairclough, Lecturer in Greek, University College, Toronto, Ont.
 E. C. Ferguson, Professor of Greek, McKendree College, Lebanon, Ill.
 John Fletcher, Professor of Classics, Queen's College, Kingston, Ont.
 Alcée Fortier, Professor of French, Tulane University of Louisiana, New Orleans, La.
 Rev. John Forrest, President Dalhousie College, Halifax, N. S.
 Carlton A. Foote, New Haven, Conn.
 Julius Goebel, Instructor in German, Johns Hopkins University, Baltimore, Md.
 Rev. George M. Grant, Principal of Queen's College, Kingston, Ont.
 Richard J. H. Gottheil, Professor of Rabbinical Literature, Columbia College, New York, N. Y.
 Charles S. Halsey, Union Classical Institute, Schenectady, N. Y.
 Hermann V. Hilprecht, Professor in University of Pennsylvania, Philadelphia, Pa.
 A. G. Hopkins, Professor of Latin, Hamilton College, Clinton, N. Y.
 Theodore W. Hunt, Professor of English, College of New Jersey, Princeton, N. J.
 Maurice Hutton, Professor of Classics, University College, Toronto, Ont.
 George B. Hussey, late Fellow in Greek, Johns Hopkins University, Baltimore, Md.
 John Johnson, Professor of Classics, Dalhousie College, Halifax, N. S.
 Thomas M. Johnson, Editor of *The Platonist*, Osceola, Mo.
 J. H. Kirkland, Professor of Latin, Vanderbilt University, Nashville, Tenn.
 M. D. Learned, Instructor in German, Johns Hopkins University, Baltimore, Md.
 John K. Lord, Associate Professor of Latin, Dartmouth College, Hanover, N. H.
 George D. Lord, Tutor in Dartmouth College, Hanover, N. H.
 Thomas McCabe, Johns Hopkins University, Baltimore, Md.
 J. L. Moore, late Fellow in Latin, Johns Hopkins University, Baltimore, Md.
 Morris H. Morgan, Instructor in Greek, Harvard University, Cambridge, Mass.
 J. T. Murray, Fellow in Greek, Johns Hopkins University, Baltimore, Md.
 F. V. N. Painter, Professor of Modern Languages, Roanoke College, Salem, Va.
 James M. Paton, Professor of Latin, Middlebury College, Middlebury, Vt.
 Ernest M. Pease, Professor of Latin, Bowdoin College, Brunswick, Me.
 Henry T. Peck, Tutor in Latin, Columbia College, New York, N. Y.
 George M. Richardson, Instructor in Latin, Harvard University, Cambridge, Mass.
 Martin Luther Rouse, Esq., Toronto, Ont.
 Rev. James P. Sheraton, Principal of Wycliffe College, Toronto, Ont.
 William D. Shipman, Professor of Greek, Buchtel College, Akron, O.
 Paul Shorey, Associate in Greek, Bryn Mawr College, Bryn Mawr, Pa.
 Henry A. Short, Instructor in Latin, Columbia College, New York, N. Y.
 Carl Siedhof, Jr., 32 West Cedar St., Boston, Mass.
 M. S. Slaughter, Instructor in Latin, Bryn Mawr College, Bryn Mawr, Pa.
 Charles Smith, Professor in Sackville College, Sackville, N. B.
 J. J. Stürzinger, Associate Professor of Romance Languages, Bryn Mawr College, Bryn Mawr, Pa.
 Horace Taft, Tutor in Yale University, New Haven, Conn.
 Henry A. Todd, Associate in Romance Languages, Johns Hopkins University, Baltimore, Md.
 James R. Truax, Professor of English, Union College, Schenectady, N. Y.

Alfred C. True, Wesleyan University, Middletown, Conn.
James S. Trueman, Johns Hopkins University, Baltimore, Md.
Frank L. Van Cleef, Harvard University, Cambridge, Mass. [Elected in 1886;
name accidentally omitted.]
Frank M. Warren, Instructor in French, Johns Hopkins University, Baltimore,
Md.
J. H. Westcott, Tutor in Latin, College of New Jersey, Princeton, N. J.
Mills Whittlesey, Master in English, Lawrenceville School, Lawrenceville, N. J.
John Wilson, Professor of Classics, Victoria College, Cobourg, Ont.
Daniel Wilson, President of University College, Toronto, Ont.
Frank E. Woodruff, Professor of Greek, Bowdoin College, Brunswick, Me.
Charles R. Williams, Professor of Greek, Lake Forest University, Lake Forest, Ill.
Henry Whitehorne, Professor of Greek, Union College, Schenectady, N. Y.
[Total, 73.]

δ. The Proceedings for the Eighteenth Annual Session, July, 1886, had been published in June, 1887; the Transactions for the same year (Vol. XVII.) were to be issued in July or in August.

At about 3.45 P.M., the reading of communications was begun. At this time there were about twenty-five persons present; at the subsequent sessions, the number averaged about thirty.

1. Dr. J. A. H. Murray's New English Dictionary, by the Rev. Dr. C. K. Nelson, of Brookeville Academy, Brookeville, Md.

The paper presented a brief notice of the actual contents of the Dictionary under the letter B, from *batter* to *bossom*. Of the 8765 words, 5323 are main words, 1873 compound, and 1569 are subordinate. Of the 5323 main words, 3802 are in current use, and less than 25 per cent are non-Teutonic. A sketch of the treatment of the words *bishop* and *book* was given, and remarks were made on the life of English speech as recorded in this great Thesaurus.

Remarks were made upon the paper by the Chairman.

2. Grote on Thuc. vi. 17 (*ἀνέλπιστοι*), by Professor W. S. Scarborough, of Wilberforce University, Wilberforce, O.

The speaker aimed to show that Grote's rendering of *ἀνέλπιστοι* (Thuc. vi. 17; Grote, Hist. Gr., Vol. VII. p. 154, Am. ed., 'desperate'), as 'enemies beyond hopes of being able to deal with' is inaccurate as a matter of history, as well as on philological grounds. Thuc. vii. 4 and 47 could not be adduced to support this rendering, since in the former passage *ἀνέλπιστος* is active, and in the latter passive. It was maintained that Alcibiades meant to say that the Peloponnesians were never hopeless of success against the Athenians; and supposing them to be otherwise, they can invade Attica only by land, but he can always prevent their attacking the Athenians by sea. *ἀνέλπιστος* is neuter when applied to things, and active when applied to persons. Examples were cited illustrating a similar

transference of meaning: *fidus* (Verg. Aen. ii. 399), *mentita* (Verg. Aen. ii. 422), *benignus*, *blandus*, *beatus*, *durus*, *incautus*, *inimicus*, *iniquus*, *severus*; φοβερός. ἀέλιπτος is used by Thuc. 15 times, ἐλπίς 63, ἐλπίζω 49; typical examples were presented and discussed, with instances from other writers. A survey of the historical situation led the speaker to conclude that up to the time of the Athenian defeat there is no reason to believe that Athens and Sparta were uncompromising enemies, though each had a desire, prompted by jealousy, to surpass the other in glory, power, and in extent of territory.

Remarks were made by Professors Seymour and Wright, and by Dr. Sihler.

3. The Tradition of Cæsar's Gallic War from Cicero to Orosius, by Dr. E. G. Sihler, of New York, N. Y.

The references in Cicero's letters reflect, of course, the comments of contemporary observers, rather than exhaustive judgment; still the measure of information and interest maintained by the most favored class at the seat of government is no doubt faithfully set forth. It seems evident that the critical character of the struggle of 52 B.C. was not realized in Rome at the time. Livy's reproduction of Cæsar (per. CIII.-CVIII.) in the main tallies with Cæsar's account. In Periocha CIII. it is proposed to read *Narbonensem* for *Narbonem*. Objection was made to Hertz's bracketing *rege* in per. CVI. Frontinus evidently wrote his *Strategemata* in the time of Domitian. His references to the Gallic war can readily be verified, excepting II. 6, 3. Many passages in Plutarch's account were evidently written from reminiscence and general impression of his reading, rather than with Cæsar's text at his elbow. There is a definiteness of detail in his account of the defeat of Ariovistus which it is difficult to explain. Plutarch used contemporary historians also, such as Tanusius (Geminus). Suetonius' general estimate of Cæsar's personal character in connection with his Gallic campaigns is emphatically unfavorable. It is probably to be traced to Asinius Pollio. A number of personal details are probably drawn from Cæsar's young friend and admirer, Oppius. The account of Iulius Florus is vitiated by his rhetorical bias, and by several instances of glaring invention. The speaker follows Dittenberger in his interpretation of Cæs. B. G. I. 52, 5. In Florus' account of the death of Indutiomanus the author of the paper believes he has discovered considerable corruption of the text. Of Appian's fragmentary notes little could be said. Dio Cassius' characteristic form of Atticism was noted even here. His interpretation of Cæs. B. G. I. 52, 5 agrees with that of Florus. In several cases of precise detail (e.g., Cæsar's cipher) Dio used special sources. The transcript of Orosius ranks high. His statement of the distance which the defeated men of Ariovistus covered in reaching the Rhine agrees with the statement given by Plutarch. He reads Cæs. B. G. I. 52, 5 with the same understanding as Dio Cassius and Florus.

Remarks were made on the paper by Mr. M. H. Stratton, and by Professors Hall and Ashmore.

At about 5.30 P.M., the Association adjourned to meet at 8 P.M.

BURLINGTON, VT., Tuesday, July 12, 1887.

EVENING SESSION.

The Association, with many residents of Burlington, assembled in the College Chapel of the University of Vermont, at 8 P.M., and was called to order by Professor Isaac H. Hall, who made a brief address, in which he explained the absence of the President of the Association, Professor A. C. Merriam, who had sailed for Greece to assume his new duties as Director, for 1887-88, of the American School of Classical Studies at Athens.

The Rev. Dr. M. H. Buckham, President of the University of Vermont, made an appropriate address of welcome, and congratulated the Association upon its prosperity.

The Annual Address of the President,¹ Professor A. C. Merriam, of Columbia College, New York, N. Y., was then read by the Secretary.

In view of the extraordinary development of the sciences and subjects that now fall within the domain of philology, rendering it impossible for one scholar to compass the whole field in his review of the work of the year, the speaker confessed his sympathy with the Homeric Epeios who feately puts the plea of the specialist in the words,

Οὐδ' ἄρα πως ἦν
ἐν πάντεσσ' ἔργοισι δαήμονα φῶτα γενέσθαι,

and announced his intention of confining his survey to one department, and only to the main points of that. The importance of inscriptions in the study of classical antiquity, from the points of view alike of language, comparative philology, criticism, institutions, history, and of art, was briefly urged. The inscriptions published in 1886-87, from Naucratis, Crete, Epidaurus, Athens, and Peiraeus, received especial attention; and the significance of some of the inscriptions, principally in the light which they cast upon the history of the Greek alphabet, was set forth in detail. The inferences drawn by the editors of the Naucrinite and Cretan inscriptions were in some instances subjected to criticism, the speaker suggesting independent views.

The Association adjourned to 9 A.M., Wednesday, July 13.

BURLINGTON, VT., Wednesday, July 13, 1887.

MORNING SESSION.

The Association was called to order at 9.20 A.M., by Vice-President Hall.

The Rev. Professor Lorenzo Sears, of the University of Vermont,

¹ The substance of this address is printed in the *American Journal of Archaeology*, Vol. III., pp. 303-321.

invited the members of the Association and their friends to attend a reception to be given in their honor, by himself and Mrs. Sears, at 9 o'clock P.M.

The invitation was accepted with thanks, and it was also voted that the evening session close, on Wednesday, at 9 P.M.

The Report of the Treasurer for the year ending July 7, 1887, was then presented. The summary of accounts for 1886-87 is as follows:—

RECEIPTS.

Balance on hand, July 12, 1886	\$84.14
Fees, assessments, and arrears paid in	\$586.00
Sales of Transactions and of Reprints	336.84
Borrowed October 30, 1886	300.00
Total receipts for the year	<u>1222.84</u>
	\$1306.98

EXPENDITURES.

For Proceedings and Transactions, Vol. XVI. (1885), balance of bill ¹	\$675.77
For postages, stationery, clerk hire, job printing (notices, bill-blanks)	51.33
Total expenditures for the year	<u>\$727.10</u>
Balance on hand, July 7, 1887	579.88
	<u>\$1306.98</u>

The Chair appointed as Committee to audit the report, C. J. Buckingham, Esq., and Dr. E. G. Sihler.

It was voted that a Committee be appointed to examine into the present state of the finances and resources of the Association, and to make any proposals in the matter that may seem to them good. The Committee as appointed consisted of Professors T. D. Seymour, J. H. Wright (Secretary and Treasurer), and F. D. Allen.

The following Committees were also appointed by the Chair:—

Committee to propose Time and Place of next Meeting, Professors L. H. Elwell, W. T. Colville, W. G. Hale.

Committee to nominate Officers for 1887-88, Professor F. D. Allen, Dr. J. Sachs, and Dr. C. P. G. Scott.

The reading of communications was then continued.

¹ See Proceedings for 1886, p. xxv. The total bill was \$975.77, on which \$300.00 had been advanced in the preceding financial year.

4. *Æschines' Reticence*, by Professor R. B. Richardson, of Dartmouth College, Hanover, N. H.

A notable feature of *Æschines' Oration against Ktesiphon* is the attempt to parry some of *Demosthenes' thrusts*. Yet no such attempt appears in regard to the stinging attack on *Æschines' mother*, *Dem. §§ 129, 130*.

From this item the following alternative presents itself.

(a) This silence might be used, as it has not been, to strengthen the view of those who, like *W. Fox*, believe that *Æschines* published exactly what he spoke. He could not, of course, at the time of his speaking foresee this abuse.

(b) Following the usual view, that the above-mentioned "anticipations" are supplementary additions made at the time of publication, we ought to give this silence some weight in estimating the character of *Æschines*. That he had the dignity to withdraw in silence from such an attack, and leave *Demosthenes* the credit of having reached the lowest point of personal abuse in Greek oratory, should be scored to his credit in the final estimate of his character. That *Demosthenes' story* is a fiction goes without saying.

Dr. Sihler made some remarks on the topic suggested.

5. *The Authorship of the Epistle to the Hebrews (second paper¹)*.

The present paper is an attempt to prove that the probabilities as to the authorship of the *Epistle to the Hebrews* on purely linguistic grounds are in favor of *St. Luke*. (1) We find in the *Epistle* the same classic Greek, the same elegance of diction, the same skilfulness of arrangement, as in the *Gospel of St. Luke* and in the *Acts of the Apostles*. (2) In all these treatises we find similar graceful proems. (3) The following coincidences in usage are to be noted: προσέχειν τινί, without νοῦν. σήματα καὶ τέρατα are common; μαρτυρεῖσθαι, ἀρχηγός, ὄθεν, ὁμοιοθῆναι, κατὰ πάντα, τὰ πρὸς. τὰ ἀκουσθέντα (the usual periphrasis for εὐαγγέλιον), εὐαγγελίζεσθαι, ζῶν λόγος of *Hebrews* like λόγια ζῶντα in *Acts*, μετὰ κραυγῆς ἰσχυρᾶς καὶ δακρύων. The sense of religion and conscientiousness implied in εὐλάβεια prevails in *St. Luke*. τὸν τῆς ἀρχῆς τοῦ Χριστοῦ is a periphrasis for εὐαγγέλιον so common in *St. Luke*. βουλή, for 'divine purpose'; μαρτυρεῖσθαι, 'to receive witness'; φέρεσθαι, 'must be alleged'; σχεδόν in connexion with πᾶς is distinctly characteristic of *St. Luke*; ἄφesis found eight times in *St. Luke*, and not elsewhere; αἰμά τε καὶ θυσία. ἐμφανίζειν and ἐμφανισθεῖν in the sense ἐαυτὸν ἐμφανίζειν, 'to make known, to present one's self, to appear.' ἐκ δευτέρου, in the unusual sense of a 'second time.' κατανοῶμεν, παραξυσμός. τιμωρία is not found except once in *Hebrews*; but τιμωρεῖν and τιμωρηθῶσιν are used by *St. Luke* in the same sense of vindication of honor. ὑπαρξίς, 'substance'; μαρτυρεῖσθαι, 'to be well spoken of'; εἰς τὸ μὴ ἐκ φαινομένων τὸ βλεπόμενον γεγενῆσθαι (*Heb. 11:3*) in its teleological sense is confirmed by *St. Luke's* usage in the *Acts* and in his *Gospel*, as is also that of the infin. with τοῦ. The combination of ἵπου with the indic. is paralleled by πῶς in the *Acts*. παρῴκησεν εἰς τὴν γῆν in the sense of 'come to reside' is matched by *St. Luke 24:13*, παροικεῖς εἰς Ἱερου-

¹ The first paper was presented to the Association at the previous session: *Proceedings for 1886*, pp. xxxi, xxxii.

σαλήμ, and ἀποθνήσκων by ἀπέθρησκει, 'she lay a-dying.' More than twice the number of coincident usages cited in the paper have been collected, and the conclusion is reached that the Greek of the Gospel of St. Luke, of the Acts of the Apostles, and of the Epistle to the Hebrews, in syntax, vocabulary, use of particles, and in style, is essentially the same.

Remarks were made on the paper by Professor Hall, Dr. Nelson, and Mr. M. L. Rouse.

The Chair was now taken by Professor T. D. Seymour, one of the Vice-Presidents.

6. Nomenclature of the Tenses in Latin, by Professor William G. Hale, of Cornell University, Ithaca, N. Y.

Professors S. G. Ashmore, Hale, F. D. Allen, March, and Mr. Rouse made remarks on the paper.

7. Standard English, by Professor F. A. March, of Lafayette College, Easton, Pa.

The new fonetists say that they know no such thing as standard English. They cannot find any standard Englishman to apply their fonometers to.

Standard speech appeals to the reason for recognition. It is a historical product, a human institution of secular growth. Its manuals are obtained by induction from records, literature, and catholic observation.

Standard English, the heir of all the ages, resting on a solid foundation of literature and observations, recorded in dictionaries and grammars, is a permanent and authoritative institution, a stronghold of the unity and power of the Anglo-Saxon race. It has a right of possession not to be deusted by single localities or passing fashions. General agreement of English-speaking regions is required for changes.

On the other hand, it is to be remembered that the standard speech is a creation of culture and reason, that its documents are imperfect, and that it is the duty of every scholar to do his endeavor towards making the dictionaries and grammars and all the apparatus of record and instruction more perfect in their union with the literature and the highest reason, so that the language may become a more efficient means of promoting the progress of the race.

Remarks were made on the subject of the paper by Professors Allen, Hale, Seymour, and Ashmore, by Doctors Sihler, Sachs, and Adler, and by Mr. Rouse.

Professor T. D. Seymour, Chairman of the Managing Committee in charge of the American School of Classical Studies at Athens, made a few remarks descriptive of the work, present condition, and future prospects of the school.

The Association adjourned to 3 P.M.

BURLINGTON, VT., Wednesday, July 13, 1887.

AFTERNOON SESSION.

The Association was called to order at 3.20 P.M.

The Committees on Officers, and on Time and Place, presented their reports, which were laid upon the table, to be acted upon, in accordance with the constitution, at the last session of the meeting.

The reading of the communications was resumed.

8. Conditional Sentences in Aischylos, by Professor E. B. Clapp, of Illinois College, Jacksonville, Ill.

The paper included an examination of all the conditional sentences in the extant plays and fragments of Aischylos. Many points in Greek syntax still remain unsettled, and an accurate collation of the usage of an important author may throw much light upon the meaning of various forms of expression. The language of Aischylos, while it generally coincides closely enough with the ordinary standards of later Attic, yet presents not a few transitional forms and traces of Homeric usage which are less frequent in the later tragic poets. The different varieties of conditional expression will be taken up separately.

The "Logical" or "Simple Particular" form of condition ($\epsilon\iota$ with the indicative in protasis; any form of the verb in the apodosis) is extremely common in Aischylos, including more than fifty-nine per cent of all the pure conditional sentences. This is a far larger percentage than is found in the Homeric poems; but Pindar, according to Professor Gildersleeve, uses this form still more frequently. Of the ninety-five logical conditions in Aischylos twenty-four have the verb in the future tense, and the question arises how these conditions differ in meaning from the familiar "More Vivid Future" or "Anticipatory" form expressed by $\epsilon\acute{\alpha}\nu$ with the subjunctive. The cases were all examined and the conclusion drawn that, so far as Aischylean usage is concerned, the "minatory" force which has been detected in $\epsilon\iota$ with the future indicative in the tragedians is not fully proved.

Conditions of the "Anticipatory" or "More Vivid Future" form ($\epsilon\acute{\alpha}\nu$ with the subjunctive in protasis; future idea in apodosis) occur less often, being but ten per cent of the total number. These present no important peculiarities. Side by side with these, however, are found five cases (twelve cases, if we include seven conditional relative sentences of analogous construction), in which the verb is still in the subjunctive, but introduced by simple $\epsilon\iota$ (or a relative word without $\acute{\alpha}\nu$). An examination of these cases shows that Aischylos was strongly influenced by the Homeric habit of using this form in conditions of a generic character.

"Ideal" or "Less Vivid Future" conditions ($\epsilon\iota$ with the optative in protasis; $\acute{\alpha}\nu$ with the optative in apodosis) number thirty, or about nineteen per cent of the whole number. It is noticeable that in a number of these conditions there is a decided wish either in favor of, or opposed to, the fulfilment of the condition. But in many other cases no such idea can be discerned, and in general no rule can be proposed more definite than that of Krüger, who says that in this form of expression "der redende will über die bedingung und ihre folge seine subjective ungewissheit ausdrücken."

The "Unreal" or "Contrary to Fact" condition is a rare form in Aischylos, being met with only eleven times in his extant works. In the apodosis $\alpha\upsilon$ is omitted only once.

It is in his generic conditions that Aischylos shows the greatest difference from the prevailing usage of the later Attic. In place of $\epsilon\lambda\alpha\upsilon$ ($\alpha\upsilon$, $\gamma\upsilon$), he now frequently uses the simple $\epsilon\iota$ with the subjunctive to introduce the protasis of a generic supposition in present time, though the former also occurs. This is also the rule in Homer and Pindar. The tendency is seen most clearly in Aischylos when the conditional relative sentences are examined in connection with the pure generic conditions, as the latter are very infrequent.

Conditional relative sentences are numerous in Aischylos. In ninety per cent of the cases the relative word (generally with $\alpha\upsilon$) introduces the subjunctive, with either a future or a generic idea, the omission of $\alpha\upsilon$ being practically confined to the generic sentences. Conditional relative sentences conforming in their structure to any of the other forms of conditional sentence are rare.

Aischylos uses a participle in a clearly conditional sense forty-four times. In the majority of cases the following apodosis is in the optative with $\alpha\upsilon$. This is believed to be the prevailing use of the conditional participle.

The so-called "Potential Optative" occurs one hundred and twenty-five times in Aischylos; $\alpha\upsilon$ is omitted eight times. In three of these latter cases a negative expression, such as $\sigma\delta\kappa$ $\epsilon\sigma\tau\iota\nu$ $\sigma\tau\alpha$, precedes.

9. Delitzsch's Assyrian Dictionary, Part I., by Professor Morris Jastrow, Jr., of the University of Pennsylvania, Philadelphia.

After a delay of over ten years, the first part of this important work has at last made its appearance. In some respects this long delay is not to be regretted, for it is only during the past ten years that Assyrian morphology and phonology have begun to receive that attention and treatment which must precede the compiling of an Assyrian dictionary. During this period the numerous and valuable contributions of Paul Haupt to this branch of Assyrian research have appeared, not to speak of others who followed in the track laid out by Professor Haupt in his *Sumerische Familiengesetze* (Leipzig, 1879). The more careful re-editing of important texts enriched with philological commentaries has gone on steadily, hand in hand with the publication and elucidation of new inscriptions; and Professor Delitzsch himself, of whose services to Assyriology it is not necessary to speak, brings to his task to-day a far richer knowledge of his subject than was possible ten years ago. For all that, the difficulties which the compiler of an Assyrian dictionary has to encounter are such, that it in nowise detracts from the vast merits of Delitzsch's great work, if we find certain features in it which do not appear to be altogether satisfactory. The present part which, according to the preface, represents about one-tenth of the whole work, covers 168 autographed pages; it deals with 95 stems, or about 200 separate words which carry us down to 𐎶𐎵 .¹

The most serious criticism, perhaps, to be urged against the Dictionary is that it will give us entirely too much, judging from the specimen before us. Nearly one-tenth of the 168 pages is taken up with unpublished texts, which, valuable

¹ Since the *Alef* includes all the gutturals—distinguished by \aleph_1 , \aleph_2 , etc.—this, of course, represents much more than it would in a Hebrew or Arabic dictionary.

as they are, one hardly expects to find in a dictionary. Then come long notes, which aggregate thirty-eight pages, and ought certainly to have been reduced to at least one-fourth the space they at present occupy. In the third place, the large number of references to passages for the occurrence of such simple words as *abbá*, *dhá*, and the like are quite superfluous, while in many instances it was not at all necessary to quote entire passages, as Delitzsch does for the explanation of a single word. In this way the bulk of the work becomes considerably increased, and to a corresponding degree, naturally, the expense. In the case of so important a work as a dictionary, especially if intended for beginners and general students, both bulk and expense ought to be kept within the smallest possible limits, compatible with clearness and comprehensiveness. Against the practical arrangement of the dictionary, there is also something to be said. A number of improvements, especially the more liberal use of various sizes of type, or rather script, might be suggested, by means of which it would be far easier, more particularly for the one who uses the dictionary as a work of reference, to obtain a general view of a stem, its various significations and its development, than is at present possible. Coming to the body of the work, the stems to which Professor Delitzsch assigns some of the words will not meet with the approval of all Assyriologists. So, *e.g.*, his assigning *adanniš*, 'time,' to a stem ערה will hardly be accepted. Haupt's וער is far preferable. The fact that in Assyrian, distinctions between many of the gutturals have been almost entirely wiped out, makes it of course in many cases difficult to determine whether the first radical is an *Alef* or *Hē*, a *He*, *Ayin* or '*Ayin*. Appeal to corresponding stems in cognate languages has hitherto been the means generally resorted to for settling doubts, and in most cases no doubt it is perfectly satisfactory, but it would appear as though Professor Delitzsch, one of the first to show that Assyrian stood in a far closer relation to Hebrew than to Arabic, and not the reverse [as was at one time assumed], was now in danger of running to an extreme in the other direction by forcing at times an analogy with the Hebrew, at the expense of consistency and method. In the classification of Assyrian words we ought to be guided by the way in which the words are *written* by the Assyrians themselves, and not by the form under which corresponding words appear in Hebrew; and this rule which for obvious reasons applies chiefly to stems in which guttural letters occur, is all the more important because of the peculiarities which the gutturals present in Assyrian in contradistinction to Hebrew. So, *e.g.*, in the case of the word *šdu*, 'flood,' the initial *š* is a more important factor in determining the stem than the fact that the word may be compared to Hebrew טא (Gen. 2, 6). The recent thorough examination of the "Assyrian E vowel" by Professor Haupt¹ shows (p. 26) that the cases in which initial *š* represents an *š*, in Assyrian are comparatively rare. Of the four examples given by Haupt, three (*eršitu*, *šba'a*, *šritu*) are such where the second radical is a *Reš* which as is known partakes of the characteristics of a guttural in some of the Semitic languages, and seems to be the reason for the change. To these three may be added the following, *šrištu*, *šrinu* (*šru* (name of a tree?) *šrinu*). In *šdu*, 'one,' the *š* is of course due to the quiescing of the second radical, the stem being טא. Such instances as *škul*, *šhuz*, *štir* (for ja'kul, ja'huz, ja'tir) come of course under a different category. In default, therefore, of any reason for the

¹ American Journal of Philology, Vol. VIII. No. 3.

change from *a* to *e* on the assumption of an initial \aleph , it seems but proper despite the analogy offered by the Hebrew to assign *édú* to a stem $\aleph\aleph$ (like $\aleph\aleph$) or $\aleph\aleph$, where this change is the rule.¹

From incidental remarks in this first part, it appears that the views of Professor Delitzsch on the so-called Sumero-Akkadian question have recently undergone a decided change. Exactly what his position at present is towards disputed points, whether with Professor Halévy he denies the existence of "Sumero-Akkadian," or holds that the "Sumero-Akkadian" in cuneiform texts is strongly admixed with Semetic elements, is not clear, but at all events this change of front on the part of one who ranks so high shows that the problem is by no means so simple as it appeared only a few years ago, and still far from its final solution.

Too much cannot be said in commendation of the admirable labor which Professor Delitzsch has expended upon his great work, and while for reasons, briefly indicated, it is doubtful whether the Dictionary will supply the needs of beginners in the study of Assyrian, it will prove invaluable for more advanced students and Assyriologists proper. The wealth of material embraced in the work is enormous. In short, the Dictionary promises to be worthy of the reputation which Professor Delitzsch has achieved for profound learning and exact scholarship, coupled with rare sagacity and inexhaustible patience.

Remarks were made by Dr. Adler.

10. Some Latin Etymologies,² by Professor J. B. Greenough, of Harvard University, Cambridge, Mass.; read, in the author's absence, by Professor F. D. Allen.

This paper discussed the derivation and affinities of the following words: *probus*, *improbus*, *desidero*, *elementum*, *provincia*, *reciprocus*, *recens*, *procul*, *recipero*, *rudimentum*, *erudio*, and *praemium*.

A short communication from Professor Fisk P. Brewer, of Grinnell, Iowa, was presented.

In an address delivered in Athens last winter on the study of Constitutional Law, the orator made use of an unusual compound. He referred to the practical school in English politics which had ceased (as he said), "*διαμαχομένη και λαγοκοποῦσα* respecting abstract constitutional principles." Is the latter of these words intended for 'hair-splitting,' the speaker having confused *hares* and *hairs*?

11. Semitic Languages in the Encyclopædia Britannica, by Dr. Cyrus Adler, of Johns Hopkins University, Baltimore, Md.

The distinguished Semitic scholar, Professor Georg Hoffman of Kiel, in his suggestive review (*Liter. Centralblatt*, April 30, '87, cols. 605-608) of the German edition of Professor Theodor Nöldeke's article on *Semitic Languages* in the *Ency-*

¹ A stem $\aleph\aleph$, like $\aleph\aleph$ from $\aleph\aleph$, is also possible, though for other reasons less probable.

² To appear in full in the *Harvard Classical Studies*, Vol. I.

Encyclopædia Britannica,¹ concludes with the request that the eminent author make arrangements for a German edition of his other articles in the *Encyclopædia Britannica*, not always accessible to scholars, and especially of the additions to Gutschmid's article on Persia.² Whosoever, Hoffman says, has not read these papers, does not know what he has missed. Professor Nöldeke's standing as a Semitic scholar renders it unnecessary to repeat this statement for the article under discussion. As grammarian and historian, as well as Biblical critic, he is at present in the foremost rank of Semitic scholars, and the *Encyclopædia Britannica* was fortunate in securing this article from his pen for the ninth edition. His admirable survey of the whole field of Semitic philology no doubt meets a long-felt desire. Renan's "clever and brilliant" *Histoire générale des langues sémitiques* (Paris, 1855), once much read and admired, is out of date now; and the King of Sweden's prize for a work which will bring Semitic philology up to the present level of our knowledge, is yet to be won. The new material to be incorporated in such a sketch was very considerable. Travel and exploration had opened for the scholar vast stores of new facts, while the old fields had been more thoroughly investigated and worked out in fuller detail by the patient labor of the last twenty-five years. That Professor Nöldeke has made the most of his opportunities, and has admirably performed the difficult task of giving the contents of several large volumes in a brief sketch, it is needless to say. Indeed, this article might serve as a model of a thoroughly scientific abstract of innumerable facts and details.

But in spite of our sincere admiration for this excellent sketch, I venture to assert that Professor Nöldeke has not been equally warm in his feelings towards the sister dialects; certainly Assyrian is treated by him as a step-sister, we might even say as the Cinderella, of the Semitic family.³ Nöldeke expressly declares, to be sure, that he is not an Assyriologist, and that he does not feel able to discern what is certain and what is doubtful in this new science. But I think it would have been much more consistent with this frank statement, if Professor Nöldeke had omitted from his masterly treatise all further mention of Assyro-Babylonian, and had requested the editors of the *Encyclopædia Britannica* to invite an Assyriologist to insert a brief statement concerning the present condition of cuneiform research, quite independent of Nöldeke's article. Such a course might perhaps have somewhat detracted from the unity of the sketch; but it would certainly not have made the article less representative of the present state of Semitic science. A precedent might have been found in the treatment of *Philology* in the *Encyclopædia Britannica*. In this way Nöldeke would have spared himself, as well as his admiring readers, several assertions, which must be called, with all regard to his distinguished position in the ranks of Semitic scholars, mis-statements. Hardly any ground save tradition justifies a comparison of the Assyrian relative pronoun

¹ *Die semitischen Sprachen*, eine Skizze von Theodor Nöldeke, Leipzig, T. O. Weigel, 1887.

² This request has since been complied with, the German original of these papers having been published in book form, under the title *Aufsätze zur persischen Geschichte* (Leipzig, T. O. Weigel, 1887, pp. 158). Compare Justi's review, *Götting. gel. Anzeigen*, Jan. 1, 1888, pp. 31-37.

³ Cf. D. H. Müller's review in the *Vienna Oriental Journal*, Vol. I. No. 4, p. 334.

ja and later Hebrew ש, with Hebrew שׁ (Assyr. *airu*, const. *ašar*, "place," Aramean 𐤔𐤍).¹

To explain his little regard of Assyrian study, Nöldeke remarks that he does not feel bound to accept the transliteration of contemporary Assyriologists as the final dictum of science. With such a statement, no doubt, every scientific man will agree. But I dare say science would make little advance if all students stood dispassionately aside, awaiting her final dictum. A study of the transliteration of Assyrian proper names and loan-words in other Semitic languages, and of the cuneiform rendering of foreign names and words,² goes to show that in the reading of the texts, at least, the Assyriologist is not far wrong. Semitic cuneiform science certainly rests on as sure a foundation as does the decipherment of the monuments in the Persian wedge-writing, whose results no oriental scholars have shown any hesitation in using. We know the real sounds of the language of the Mesopotamian empire fully as well as the pronunciation of ancient Hebrew or Syriac or Geez. In fact, the only way in which we may hope to arrive at the pronunciation of ancient Hebrew is through the medium of the cuneiform inscriptions. That Assyro-Babylonian was a real speech, and not an official or sacred dialect for the exclusive use of scribes and priests, as Nöldeke intimates, there is abundant evidence. It seems to me that nothing but their currency could have induced the Jews of the Exile to adopt the names of the Babylonian months. Words like 𐤍𐤊𐤍 'governors, prefects' (Assyr. *šaknu*, const. *šakan*), 𐤔𐤍𐤔 'scribe' (Assyr. *šap-sar*, i.e. 'tablet + writer'), Syr. 𐤔𐤍𐤔 'tribute' (Assyr. *mādattu*³), and titles like 𐤍𐤔𐤍 and 𐤍𐤔𐤍-𐤍 are, of course, terms drawn from official life. And I readily admit that even the names of the months may be said to be official; but this does not hold good in the case of Aramean forms like 𐤔𐤍⁴ 'to deliver' (Assyr. *ušešib*, shaphel of 𐤔𐤍, in the common Assyrian expression *ana šazub napšātisunu*, 'to save their lives') 𐤔𐤍⁵ 'to bring out,' Ezr. VI. 15 (Assyr. *ušeçl*), or 𐤔𐤍⁶ 'to complete' (Assyr. *ušaḫlil*). To claim with any force whatever that these verbs are organic Aramean forms, is simply impossible. These few examples will suffice to show that Assyriology has become so intrinsic a part of Semitic philology, that a lack of knowledge of the principal results of Assyrian philology seriously affects statements made for the entire Semitic domain. To quote another illustration, it is commonly asserted that Syriac possesses two different sibilant prefixes for the causative stem, ש and 𐤔.⁶ In view of the established fact of the borrowing of Babylonian shaphel forms by

¹ Compare Hommel, Z DMG. Vol. XXXII. p. 708 fol. Phoenician 𐤔 corresponds to the Assyrian form *ašsu*, *ašša*; cf. Delitzsch's *Prolegomena*, p. 44, n. 1.

² I hope to present a fuller study of this question at no distant date. Cf. Professor Haupt's remarks in the Munich *Journal of Assyriology*, Vol. II. 261, 2.

³ First established by Dr. Hincks. Cf. Am. Or. Soc. *Proc.* at Balto., October, 1887, p. xlv. n. 3.

⁴ The 𐤔 after the ש cannot be explained from the point of view of Aramean Grammar. Comp. Delitzsch, *Hebrew and Assyrian*, p. 69; *Prolegomena*, p. 140, n. 4. Levy arrived at the same derivation in his *Targumic Lexicon* without a knowledge of Assyrian. Cf. Delitzsch's *Assyrian Dictionary*, p. 247, n. 4.

⁵ If 𐤔 were a genuine Aramean word, we would, of course, expect an 𐤔 instead of the 𐤔. Cf. Nöldeke's remarks in the *Götting. gel. Anz.* 1884, p. 1019.

⁶ Comp. Nöldeke's *Syriac Grammar*, § 180.

Aramean, as shown above, does it not seem more likely that one, if not both, of these classes of Syriac causatives is due either to direct borrowing or to subsequent analogical formations?¹ The whole question, as to whether any Semitic language possesses at the same time organic causative *š* and *š'* formations, is deserving of the most careful investigation.

In method, too, Assyriology has brought much to Semitic comparative philology; and though it is true that a more rigid notion of the comparison of Arabic *h* and *h'* and Ethiopic *Ḥaut* and *Ḥarm* with Hebrew *ח*, and a more thorough knowledge of the rules concerning the interchange of the Semitic sibilants, causes etymologizing to be attended with greater difficulties, that fact can hardly be considered a misfortune. It is not claimed that a knowledge of Assyrian was necessary for the discovery of the phonetic rules recently formulated by Assyriologists. A more careful scrutiny of the material at hand, and especially of the much neglected dialects of the Targumim and the Talmud, might have yielded similar results. But it seems as though the clearness of vision, attained from the study of Assyrian by the devotees of cuneiform science, was needed to furnish the last link.

One of the greatest of early Assyriologists, Dr. Edward Hincks, distinguished Assyrian by the title of *Sanskrit of the Semitic tongues*.² This claim Nöldeke dismisses with scant notice, saying that "the opinion sometimes maintained by certain over-zealous Assyriologists that Assyrian is the Sanskrit of the Semitic family of speech, has not met with the approval, even of the Assyriologists themselves, and is unworthy of a serious refutation." But Sanskrit is by no means recognized in all respects as the most primitive of the Indo-European languages, or, as Nöldeke himself puts it, it "is now recognized with ever-increasing clearness that Sanskrit is far from having retained in such a degree as was even lately supposed, the characteristics of primitive Indo-European"; so, the designation Sanskrit of the Semitic tongues is, if anything, more appropriate than when first employed by Hincks. We certainly have every reason to believe that Assyrian will at least do for Semitic comparative philology as much as Sanskrit has accomplished for Indo-European linguistics.³

Remarks were made on the paper by Professors Jastrow and Hall.

12. The Relative Value of the Manuscripts of Terence collated by Umpfenbach, by Professor E. M. Pease, of Bowdoin College, Brunswick, Me.

This investigation was begun on account of a belief in the individuality of Mss. Each Ms. has a history — a genealogy. The extant Mss. vary from the originals

¹ The *š* and *š'* causative forms must evidently have been borrowed from different dialects. It is certain that the Babylonians pronounced *š* as *sh* down to the latest period, the Assyrians, on the other hand, pronouncing *š* as *s*, and *š'* as *sh'*. See Haupt in the *Johns Hopkins University Circulars* for August, 1887, p. 118; and his remarks, *Am. Or. Soc. Proc.* at Balto., October, 1887, p. lxii. n. 26.

² *Specimen Chapters of an Assyrian Grammar* (JRAS., 1866), p. 1. Cf. Haupt, *Sumerische Familiengesetze*, p. vii.; *Proleg. to a Comp. Assyr. Grammar* (PAOS., October, 1887, p. lix. n. 13).

³ Comp. Whitney, *Language and the Study of Language*, p. 4.

so far as changes were made in them by the several hands through which they passed. Different scribes would fall into different kinds of error, and revisers would work in their favorite lines. For instance, one scribe might be guilty of many omissions, while another would alter the verse for the sake of meter. Each one would leave his own peculiar stamp. Therefore it ought to be possible to find in what particulars each Ms. has been most vitiated and in what it is most reliable. In order to do this all the variants from the accepted text of Umpfenbach have been assorted into certain natural categories; and the results show that the Mss. do not have a uniform value in all the categories, as editors are accustomed to accredit them, but that in some particulars one Ms. excelled, and in others another.

TABLE OF CHARACTERISTICS OF MSS. OF TERENCE.

	Omission of Verb.	" " Participle.	" " Pronoun.	" " Noun.	Total Omissions.	Insertion of Participle.	" " Other Words.	Total Insertions.	Substitutions.	Inverted Order.	Corrupt Passages.	Case.	Number.	Gender.	Tense.	Mood.	Number.	Person.	Roles.	Variations in Spelling.	Total.	
Eunuchus.	A	15	12	22	12	61	17	23	40	106	29	39	26	4	8	11	10	2	2	11	45	394
	D	12	17	20	10	59	35	53	88	169	77	39	32	3	6	16	18	4	5	21	68	605
	G	15	27	19	14	75	46	44	90	175	81	76	37	3	7	17	26	2	7	28	72	696
	P	14	16	15	5	59	28	39	67	104	48	5	17	3	3	15	15	4	6	27	61	425
	C	11	15	16	5	47	28	38	66	126	48	25	28	7	4	16	16	3	8	24	62	480
	B	13	15	13	6	47	29	47	76	124	54	18	21	4	6	13	16	3	7	25	70	484
Adelphoe.	E	16	24	26	11	77	49	55	104	161	71	37	28	5	5	15	24	4	10	30	76	647
	F	10	20	23	12	65	29	49	78	146	49	27	22	3	0	15	22	3	8	20	79	537
	A	12	20	19	16	67	14	20	34	100	14	28	28	0	2	6	5	1	4	4	12	305
	D	4	14	19	17	54	24	36	60	160	64	7	26	5	2	18	18	4	6	8	63	495
	G	10	17	23	16	66	21	43	64	169	79	26	39	4	2	19	21	5	8	18	79	599
	P	4	18	14	12	48	15	23	38	112	56	2	25	4	5	14	16	1	3	14	51	389
Phormio.	C	3	18	12	17	50	14	25	39	129	51	5	29	5	4	14	17	2	6	13	57	421
	B	3	16	9	11	39	15	27	42	135	52	2	26	4	4	16	16	2	4	12	51	405
	E	10	24	20	17	71	19	41	60	154	63	7	28	4	4	15	24	2	5	16	76	529
	F	5	16	13	17	51	20	32	52	130	55	9	29	5	6	13	22	2	5	13	70	462
	A	8	26	20	10	64	8	23	31	110	12	31	23	1	1	12	8	3	6	19	45	366
	D	12	40	25	13	90	44	40	84	197	62	28	26	3	3	15	22	4	9	34	72	649
Andria.	G	11	33	24	10	78	37	41	78	203	67	27	34	3	1	18	24	4	10	40	87	674
	P	8	23	18	4	53	42	43	85	159	70	8	17	3	8	13	25	1	4	31	78	555
Andria.	D	5	22	12	7	46	30	35	65	115	76	7	11	1	5	7	6	5	2	4	136	486
	G	7	21	16	13	57	28	33	61	111	79	43	15	2	3	5	11	3	2	5	137	434
	P	7	18	13	2	40	15	20	35	67	42	1	9	1	2	4	4	4	2	4	80	295

Another result, and an unexpected one, is that an entire family has been underrated. D and G have been regarded as next in value to A, the Bembinus, and when that is wanting they have been considered by all editors, excepting Spengel, the highest authority. It can be seen from the table in what respects the illustrated Mss. PCB excel DG and rank next in value to the Bembinus. The summaries show as clearly as figures can express it the general value of each Ms.

These summaries are also indicative of the popularity of the different plays.

The corrections by later hands have likewise been classified. The number of accepted changes in A are about equal to those rejected. The corrector of D improved the Ms. G and P have fewest changes, and are not much affected either way.

From an independent study of the family relations it is found that there are three families, A, DG, PCBEF, but that E and F are so loosely connected with the last family that they could almost be regarded as a fourth group.

In summarizing the chief points of excellence in the two minor families, we find that in age D and P are about equal; that more changes had been made in the archetype of the D family than in the archetype of the P family, and also that more afterwards came into its individual Mss.; that the order of plays in D and G is alphabetical, while in the other family it is for the most part chronological; that D and G distinguish the characters in the plays by Greek letters — a method undoubtedly old, and found in the Bembinus and the vetus of Plautus. On the other hand the P family represents a very old custom in retaining the illustrations, and in preserving the metre.

We should bear in mind that by adopting Umpfenbach's text as a standard, all our numerical results are more unfavorable to P and its family than would have been the case, if Umpfenbach had not everywhere preferred the readings of the other Mss.

The Association adjourned at 5.45 P.M.

BURLINGTON, VT., Wednesday, July 13, 1887.

EVENING SESSION.

The Association assembled at 7.45 P.M.

Mr. C. J. Buckingham reported on behalf of the Auditing Committee that the Treasurer's accounts had been examined and found correct. The report was accepted.

13. The Monetary Crisis at Rome in A.D. 33 (Tacitus, *Ann.* vi. 33), by Professor William F. Allen, of the University of Wisconsin, Madison, Wis.; read by Dr. H. M. Clarke.

A severe monetary crisis in Rome is described by Tacitus in the sixteenth and seventeenth chapters of the sixth book of the Annals; and some important items of information in regard to it are derived also from Suetonius (Tib. 48) and Dio Cassius (58, 21). The crisis is said to have been caused by an attempt on the part of the accusers, which seems to have been instigated by the emperor Tiberius, to put in execution an obsolete law of Julius Cæsar which in some way regulated the business of money lending. This law is brought by the historian in connection with the old laws of the republic which undertook to prohibit altogether the lending of money at interest; but the precise bearing of these laws upon the case in question is not clearly stated, and at any rate Cæsar's law, as described, does not appear to have attempted the suppression, but the regulation, of the traffic. The revival of this law by Tiberius was no doubt excited by an observation of serious and increasing economical evils; but he was warned by the acute lawyer Neova that he would cause more mischief than he would remedy, and he allowed the Senate to grant a respite of eighteen months for the settlement of contracts, before the law should be put in force. Even this, however, did not prevent the anticipated evils. Debts were at once called in, and money immediately became very scarce. The Senate had, to be sure, by the direction of the Emperor, attempted to relieve the money market, by requiring the creditors to take part of their loan in land; but this made it all the worse. The creditors were willing to accept this proposition, and demanded immediate payment in full,—a demand which was strictly a violation of the ordinance just described, but which the debtors did not dare to refuse, because their credit would suffer by their not meeting their obligations promptly; the temporary relief would not make up for the loss of their business standing. The stringency therefore became more and more severe: those who had land found it impossible to dispose of it in small lots, because the creditors knew that by waiting they could purchase large estates at a bargain. The Emperor at last came to the rescue, and deposited one hundred million sesterces in banks, to be taken in loans for three years without interest. Thus credit was restored, and the market gradually became quiet. The attempt of the Emperor, however, to relieve the economical condition of Italy had failed, and no further attempt seems to have been made.

14. Long vowels in Old-Germanic, by Dr. Benjamin W. Wells, of The Friends' School, Providence, R. I.; read by Professor W. B. Owen.

The paper examines the origin and the growth of the Old-Germanic long vowels and diphthongs. All words which are found in the East-Germanic (Gothic and Old-Norse) and in the West-Germanic, or that are pre-Germanic and might be supposed to have long root-vowels, are included in the lists. The origin of the long vowels and diphthongs is first treated. The diphthongs *ei*, *ai*, *eu*, *au* are found in most cases to be due to the ablaut gradations of *i*- and *u*-roots; but *ei*, which it is said is not to be distinguished in its later development from *i*, with which it is identified here, is also derived from *eu* and *iu*, from *i-i* and *i-j*, and perhaps from the lengthening power of the liquids *r* and *l*. *Au* in rare instances is found to come from *a-u*, which had come into juxtaposition by epenthesis, and so also *ai* is found sometimes to be from *a-i*.

The long vowels \bar{a} , \bar{o} , \bar{u} are found in most cases to owe their length to contraction of a short vowel with a nasal, to the lengthening influence of liquids, or to their having once been final and lengthened there before the addition of a suffix made them medial. Other contractions than with nasals are thought to produce long \bar{a} in the preterit plural and second person singular of strong verbs of class I. a, b, and long \bar{o} in verbs of class IV. Both \bar{a} , \bar{o} , and \bar{u} seem in a few cases to take the place of an older *av* or *va*, which should regularly produce *au*. A comparatively small number of words are given where the origin of the long vowel could not be determined.

The regular development of the Old-Germanic vowels in the chief Germanic languages — Gothic, Old-Norse, Old-English, and Old-High-German — is shown in the following table: —

Old-Ger- manic.	Gothic.	Old-Norse.	Old-English.	Old-High-German.
Ei or \bar{i}	ei	\bar{i} (\bar{y} , \bar{e} , i, j)	i (eo)	ī (ia)
ai	ai	ei (\bar{a} , $\bar{a}\bar{e}$, e)	\bar{a} , $\bar{a}\bar{e}$ ($\bar{e}\bar{a}$)	ei, \bar{e}
Eu	iu	j \bar{o} , \bar{y} (j \bar{u})	$\bar{e}\bar{o}$, $\bar{i}\bar{e}$	io, iu
Au	au (av)	au, ey (\bar{o} , \bar{u} , \bar{a} , $\bar{a}\bar{e}$)	$\bar{e}\bar{a}$, $\bar{i}\bar{e}$, (aw, \bar{o} , uw)	\bar{o} , ou (aw, ow, \bar{u} , o)
\bar{A}	\bar{e} (ai, a)	\bar{a} , $\bar{a}\bar{e}$ (a)	$\bar{a}\bar{e}$, \bar{a} (\bar{e} , a, $\bar{e}\bar{a}$, $\bar{e}\bar{a}$, \bar{o})	\bar{a} (\bar{o} , uo, \bar{e} , a)
\bar{O}	\bar{o} (\bar{u})	\bar{o} , oe (\bar{y})	\bar{o} , \bar{e} (\bar{u} , \bar{y})	uo (\bar{o})
\bar{U}	\bar{u} (u, au)	\bar{u} , \bar{y} (u, j \bar{o})	\bar{u} , \bar{y} ($\bar{e}\bar{o}$)	\bar{u} (u)

The vowels in parentheses are usually found in but one or two words and are in no case subject to any general rule.

The word-lists with the discussion of all details and exceptions will appear in the Transactions (Vol. XVIII.).

15. The *Cum*-Constructions in Latin: their History and their Functions,¹ by Professor William Gardner Hale, of Cornell University, Ithaca, N. Y.

¹ Printed in full, with the addition of a discussion of prevailing theories, in the *Cornell University Studies in Classical Philology*, No. 1, Parts I. and II. (1887-88).

¹If the problem of the history of the *cum*-constructions is soluble, the clue by which we are to be guided to the course which the investigation should take must obviously be found through comparing the modal behavior of *quom*² with that of the various sets of words with each of which it has something in common.

Quom belongs with the temporal group, *postquam, simul atque, ubi, ut*. These particles, whether used with or without accessory ideas of cause, take the indicative, while *quom* in similar uses takes the subjunctive. There is, then, no clue here. It belongs with the causal group, *quod, quia, quoniam, quando*. But these particles take the indicative. The ground of the subjunctive with *quom* causal consequently cannot be the causal idea. It belongs with the concessive particle *quamquam*. But this is followed by the indicative. The ground of the mode with *quom* concessive consequently cannot be the concessive idea, which, like the causal idea, must therefore have been originally accidental. It belongs with the relative pronoun *qui*. With this word it appears at once to have many constructions in common, e.g. the explicative, the parenthetical, the conditional (both in the indicative and subjunctive), the final, the consecutive.

A possible clue, then, is presented by the (at least partial) correspondence of the *quom*-constructions with the *qui*-constructions. Our next step must therefore be to study the latter.

Proceeding to do this, we find, in the indicative, determinative clauses, parenthetical clauses, "asides," clauses of loose bearing upon the context (sometimes causal or adversative), forward-moving clauses, and generalizing clauses (equivalent to general conditions); in the subjunctive, generalizing clauses (equivalent to general conditions), final clauses, and consecutive clauses. These last require special examination. They appear, when classified according to their functions, to embrace five distinct kinds. In one of these kinds (and in one only) an inherent reason for the mode appears; for its verb is capable of standing in an independent subjunctive sentence of ideal assertion, as e.g. in *hic latro, quem clientem habere nemo velit*, Cic. Phil. 6, 5, 13.

This class would seem, therefore, to be the starting-point of a process of development. The probable psychological processes of the development, and the various stadia in its progress, are as follows:—

1. The original consecutive clause (the verb of which would be equally in the subjunctive if independent) characterizes the antecedent by stating some act that would flow, would have flowed, etc., from the nature of the antecedent.

Then, by a confusion between what actually is said in the construction and what appears to be involved in it (a confusion identical with that which takes place in the parallel *ut*-clauses).

2. The developing consecutive clause characterizes the antecedent by stating some act that actually will flow, does flow, or has flowed, from the nature of the antecedent.

¹ BIBLIOGRAPHY: Grotendorf, Lateinische Grammatik, ed. Krüger (1842), § 613 c; Gröthe, De usu Terentiano particularum temporalium (1867); Haase, Vorlesungen über lateinische Sprachwissenschaft, Band II. (edited and published by Hermann Peter in 1880, thirteen years after Haase's death), pp. 217-220; and, in particular, Greenough, Analysis of the Latin Subjunctive (1870).

² The form of the word here employed not only indicates its historical connection with *qui*, but was in actual use through the period of the development of the constructions under examination.

Both these types of *qui*-clauses are in effect qualitative. But the repeated apprehension of the qualitative idea in a construction so frequently recurring would lead to the feeling that the construction itself is the expression of that idea. At this point, then, we may define the subjunctive *qui*-clause as the construction used in statements made to exhibit the qualities of an antecedent.

An almost inevitable extension would now take place through the inclusion of other ideas equally qualitative, though not involved in the original consecutive ideas, namely, direct predications of the existence or absence of qualities. Hence,

3. The developing clause (originally consecutive, now qualitative) characterizes the antecedent by directly stating the existence in it, or absence from it, of a quality.

So far, the consecutive-qualitative clauses express only the character of the antecedent. But they now naturally extend themselves to qualitative clauses expressive of the situation, the plight, the condition, of the antecedent, even though that situation be the result, not of the character of the antecedent, but of the activity of some other person or thing. Hence,

4. The developing qualitative clause exhibits the condition of the antecedent by stating some experience of his (hers, its) proceeding, not from the nature of the antecedent, but from an external source.

But all these clauses in effect classify. In consequence, the consecutive-qualitative construction extends itself to cases in which there is classification alone, with no true expression of either the character or the condition of the antecedent. Hence,

5. The classifying clause places the antecedent in a class, on the ground of some act or circumstance which may be wholly external to him (her, it) as in *corum quos viderim Domitius Afer et Iulius Secundus longe praestantissimi*, Quintil. 19, 1, 118.

In Plautus, the subjunctive is always used in relative clauses after phrases like *nullus est qui*, while after phrases like *si quis est qui* the subjunctive is not yet fixed, and after phrases like *sunt qui* only one instance of it is found. This state of affairs would seem to indicate that the development of the consecutive subjunctive began in clauses after negative antecedents. And it is, in fact, in such clauses that those confusions and extensions would most easily occur, to which we found that this development is presumably due.

A probable genesis of the use of the subjunctive with causal or adversative feeling is suggested by sentences like *sumne autem nihili, qui nequeam ingenio moderari meo*, Plaut. Bacch 91. They point to an early type of the consecutive clause, in which, without a modifying *tam* or *ita*, the main clause expressed a quality, and the *qui*-clause the working of that quality. But a second conception would connect itself readily with such a use; for the *qui*-clause not only expresses the result of the character exhibited in the main statement, but is at the same time a justification of that statement. The frequent recurrence of such combinations would lead to an association of the causal idea with the mode itself. The adversative force would arise through the fact that, after negative statements and questions of negative import, that which is a justification of the main statement as a whole is in opposition to the quality, etc., which is negated in that statement.

The dramatic literature shows that the causal-adversative subjunctive was in

considerable use before the employment of the qualitative subjunctive clause after a positive and definite antecedent had become common. With the spread of this latter use, a second contribution to the association of the causal-adversative idea with the subjunctive would be made. The qualitative clauses are, in effect, complex adjectives. Like other adjectives, they may stand in the predicate after some expression containing the idea of existence, or they may be attached directly to the subject or to the object of the verb. In the last two cases, the quality, etc., expressed in the dependent clause must necessarily be either in harmony with, or in opposition to the main act; and the existence of this causal or adversative bearing will naturally be perceived. The consequence might have been a development of a causal-adversative use of the subjunctive, if such a use had not already existed. As it was, however, an association would naturally be set up between the already established causal-adversative use and the qualitative use. That the Roman feeling did in fact tend to identify the two uses, appears from the occurrence of the former in co-ordination with simple adjectives having a causal or adversative bearing, as in Cic. Verr. 3, 58, 134, Phil. 6, 7, 19, Liv. 1, 34, 7; and from the occurrence of the clause after *sic ut*, as in Caes. B. G. 31-33, after *ut is qui*, as in Cic. Dei. 5, 13.

If the view of the growth of the subjunctive characterizing-qualitative-classifying and causal-adversative *qui*-clauses here taken is correct, it is idle to expect an absolute fixity of mode in any of these constructions except that original one in which the subjunctive is inherent in the nature of the idea. Rather shall we find a development, more or less complete, with greater or less ultimate stability of mode. The evidence that such a development has in fact taken place becomes at once apparent upon an examination of the literature.

Further, it must occasionally happen that of a given fact two or more distinct uses may be made; e.g., an act which is in its contents characterizing may be instanced either to tell *what kind of a man* the antecedent is (qualitative idea), or to make the hearer understand *who* the antecedent is (determinative idea). If the former idea is to be expressed, the subjunctive will be employed; if the latter, the indicative.

An examination of the developing constructions, and of the contrasting indicative and subjunctive constructions, detects three classes of the former, and six of the latter. (These nine classes will, for economy of space, be enumerated only under the treatment of *quom*.)

Taking up now the examination of the *quom*-constructions, we find the various indicative clauses, and the various subjunctive clauses through the consecutive, correspond precisely to those which we found in the *qui*-constructions, and, in fact, to be replaceable by those constructions through the simple conversion of *quom* into *quo*, *qua*, or *quibus*. This is the point which the *quom*-clauses have reached by the time of Plautus. Further than this, by a process familiar in other languages, an indicative *quom*-construction has already come into free use to present an introductory statement of the circumstances which exist at the time of the main act, and form its environment (the *Sachlage*, *milieu*, *status rerum*, *condition of affairs*, *nature of the situation*); has also come to have a similar use in a post-positive clause, serving to complete the picture for the main act; has also come, just as clauses after *postquam* (*quisque*) did in their Romance growth, and as clauses after Greek *ἐπει, ἐπειδή, and ὅτε*, English *since*, German *weil*, etc., have

done, to have, first an accidental suggestion of a causal relation, then a distinct causal force; and finally, has also come, just as clauses after German *während* and English *when* and *while* have done, to convey a more or less complete adversative force.

After this, one or both of two things would happen, the second certainly, the first possibly: —

1. The association of the causal-adversative idea with the subjunctive mode in the *qui*-constructions might well lead to the (at first sporadic) employment of the same mode in the essentially identical and, in sound, closely similar *quom*-constructions. Such may possibly be the view that should be taken of the three examples of the causal-adversative subjunctive *quom*-clause attested by the Mss. of Plautus, and the two examples attested by the Mss. of Terence; though the clear general usage of the time, and the existing evidence of errors committed in citing Plautus at a later period, under the influence of a changed linguistic feeling, brings these examples under suspicion.

2. In any case a development of the *quom*-constructions on their own ground, on a line in the main parallel to that along which the *qui*-constructions had already moved, would ultimately be inevitable. We find the original consecutive *quom*-clause (the subjunctive verb of which could stand independently) in Plautus, and we also find in him at least a part of the same development (consecutive-qualitative-classifying) that we have already seen in the consecutive *qui*-clause. If there remained nothing more of Roman literature, we should nevertheless feel sure that eventually the use of the qualitative subjunctive in the *quom*-clause with an expressed antecedent of time (in which case the *quom*-clause would give the *nature of the situation at the time when the main act took place*) must have led to the growing up of an introductory and a post-positive subjunctive narrative clause; and that later there must have arisen a causal-adversative association with the mode, just such as, in the case of the *qui*-clauses, would have arisen, if it had not already been developed at an earlier stage in the history of the consecutive construction.

So far, we have considered, partly within our sight, partly in necessary imagination, the growth of the *quom*-constructions on a line parallel with that of the growth of the *qui*-constructions. But the peculiar nature of the temporal idea would carry the temporal clause in Latin, just as that peculiar nature has carried it (mode apart) in Greek, German, English, French, etc., beyond the line of the development of the *qui*-clause. When once the subjunctive (qualitative) mode had made its entry into the narrative clause, we should expect the following: —

The countless repetitions of the subjunctive narrative *quom*-clause, with varying degrees of prominence of the qualitative feeling, would lead in the one direction to a narrative type in which the qualitative aspect of the situation-giving clause was faint; at the extreme of which direction the clause would closely approach the indicative *quom*-clause, though still essentially differing from it by falling short of a sharp and exclusive date-determining force. In the other direction, the constant use of the subjunctive *quom*-clause with more or less prominent qualitative feeling, involving necessarily a more or less prominent causal or adversative feeling, would lead to a type in which the causal-adversative idea would be

the larger element, and, at the extreme, to a type in which, as in the French *puisque*-clause, nothing but this causal-adversative idea would remain.

If, then, we were to be put in possession of a considerable body of Roman literature belonging to a period a hundred or more years later than the time of Plautus and Terence, we should expect, either to find the fully developed *quom*-constructions just sketched in imagination, and those above, or to find constructions of this kind by the side of other constructions of the older, undeveloped type. In point of fact, upon examining the literature as it reappears some eighty years after the death of Terence, we find the developed constructions sketched above, with but rare examples of the old type.

These rare examples of the old type, it should be said, are commonly misunderstood, under a false general conception of the *quom*-constructions; and futile attempts are made to explain them as if they expressed ideas really belonging to the prevailing usage of the mode in the time to which they belong.

We may now, stating for the *qui*-clauses and the *quom*-clauses together the more obvious results of an examination of the developing and the contrasting constructions, tabulate the following classes: —

A. The developing *qui-quom*-constructions (with varying mode)

1. After indefinite antecedents.
2. After definite antecedents; with or without causal-adversative bearing.
3. With merely classifying force (in which construction the subjunctive always remains the rarer mode).

B. The contrasting indicative and subjunctive *qui-quom*-constructions.

4. Loosely attached indicative clauses, with unexpressed causal or adversative bearing; versus causal-adversative subjunctive clauses.
5. Determinative indicative clauses; versus qualitative subjunctive clauses, with or without causal-adversative bearing.

Closely connected with 5 are the two classes next following: —

6. Preliminary (less frequently subsequent) presentation of a certain person, thing, or time, by a determinative clause, followed (or preceded) by a statement with regard to that person, thing, or time (with causal-adversative bearing); versus the simple expression of a causal-adversative relation, through the subjunctive.
7. Identification of two acts through an identification of the actors (*qui*) or the times (*quom*); versus the simple expression of the causal-adversative idea or the narrative idea.
8. Generalization; versus the expression of quality, with or without causal-adversative bearing.
9. Identification of one series of acts with another, constituting formal definition; versus the causal-adversative construction, justifying the main statement.

From the fact that temporal relative clauses, in all languages, are capable of far outrunning their original meaning, it would be antecedently possible that the subjunctive *quom*-clauses would sooner or later come to be used occasionally with

no true feeling, and in no sharp distinction from indicative clauses. Possible indications of this tendency are to be seen in a few narrative *quom*-clauses in Cicero, and unquestionable examples are to be found in the first century of the Empire, as, *e.g.*, in Seneca.

When the *quom*-constructions have reached the extreme of their legitimate development, it would be natural that the use of the subjunctive should in sporadic cases be extended from the narrative *quom*-clauses to clauses with *postquam*, *ubi*, *ut*, and *dum*, which, though not, like the original *quom*-clauses, replaceable by *qui*-clauses, and so not sharing in the peculiarities which led to the great development of the *quom*-clauses, yet in effect somewhat resemble the narrative *quom*-clauses. Examples of this construction for *postquam*, *ubi*, and *dum* are Cic. Manil. 4, 9; Auctor Bell. Afr. 78, 4; Liv. 1, 40, 7.

16. Arcado-Cyprian Dialect, by Dr. Herbert Weir Smyth, of Johns Hopkins University, Baltimore, Md.

Arcadian and Cyprian are in closer touch than any other two Hellenic dialects which have at the same time so many and such varied points of divergence. If we consider the date of the separation of the daughter-dialect (a date which on any view must be early, even if we reject the Agapenor legend), the preservation in Cyprian, for so many centuries, of such striking cases of agreement with Arcadian offers a most valuable example of the persistence of dialect life. This fact is not unknown, but has never yet received thorough-going treatment. The treatises of Gelbke, Schrader, Rothe, and Spitzer fail to open that horizon, without which the mooted question of the position of Arcadian can never be settled, and which can be attained solely on the basis of a minute examination of the phenomena in question. The object of this paper was to present a study preparatory to such an examination, and at the same time to lay the foundation for a discussion of the question in a work on the dialects of Greece now in progress. It was designed to collect every case of agreement and of difference between the two dialects, beginning with what is common to Arcadian and to Cyprian (A-C) and to no other Hellenic dialect; next, to present the joint possessions of A-C and Homeric Greek (*e.g.*, infinitive in *-ηναι*); then, by gradually enlarging the range of vision, to discuss in detail the relations of A-C to all the dialects known under the obsolescent name of Aeolic; and finally to draw within the circle of observation the affinities of A-C, Doric, and Ionic. The same process was then applied in the case of Arcadian and of Cyprian, when these dialects either present actual differences, or when one has preserved forms as yet not found in the other. By this process alone can the vision of the dialectologist become acute enough to permit a cautious estimate of the position of the parent Arcadian.

A summary of the results of the investigation is as follows: The resistance of A-C to external influence was effected, to no inconsiderable extent, upon the lines of a syntactical usage which must have met with determined hostility from the levelling forces of the *κοινή* (*e.g.*, *έσς* with the genitive, *ἀπύ* with the dative).

There is no single striking dialect feature possessed in common by A-C, Aeolic in the proper sense (the dialect of Lesbos and of the adjacent mainland), Thesalian, Boeotian, and Elean. The pronunciation of *υ* as *υ*, even if shared in by

all these dialects alike (which is by no means certain), would be nothing more than the retention of the Indo-European pronunciation of *u*.

Aeolic, Thessalian, and Boeotian agree with A-C in having *ep* for *ap* or *pa*, but not in the same word. This strong form is, however, not the undisputed possession of dialects with Aeolic sympathies. In fact, whenever we start with a dialect peculiarity that might seem to serve as a criterion of unity, the line of connection is uniformly broken. Thus, if we start with *ἀπὸ* or *κέ*, Boeotian and Elean are the offending dialects; if with *έσς* or with *έν cum accus.*, Aeolic is the guilty member. This disposes of a pan-Aeolic dialect. Aeolic, Thessalian, and Boeotian are more closely connected than any dialects of this class. Yet even they have only one salient feature in common. An Aeolic dialect in the former, wider sense of the term cannot be utilized as a factor in the study of Hellenic speech. If there was ever any period when A-C and these dialects were in touch, it was before the worshippers of Arcadian Zeus emigrated from Northern Hellas. Into such a period, of which Greek legend has preserved no memory, it is futile for us to attempt to penetrate.

If we eliminate from A-C those forms that are pan-Hellenic or due to the declining vigor of the old inflectional system, the residue may justly be compared with a similar residue from other dialects. The result of such a comparison shows that Thessalian is the link between Aeolic and A-C, and between A-C and Boeotian. It was from Thessaly that the Aeolians and Boeotians are said to have departed to seek a new home (see *American Journal of Philology*, VII. 426).

When A-C falls into line with Doric and Ionic, the phenomena in question appear to be survivals of the pan-Hellenic period.

Traces of connection between Arcado-Cyprian and Doric alone are far to seek. *η* by compensatory lengthening has been explained by the adherents of an "Aeolic" origin of Arcadian as a proof that the ancestors of the Arcado-Cyprians emigrated from Northern Greece before *ē* (i.e., open *η*) became *ē̄* (i.e., closed *η*). But as it cannot be shown that *εἰ* for *η* was the property of Lesbians, Thessalians, and Bœotians in a common home, the *η* of *φθήρων* and of *ἡμί* (if we follow the common transcription of *ε·μι*) must be either pan-Hellenic or Doric. That the latter is the only possible explanation is clear from the fact that the ground form *φθερ-ω* became *φθήρω* in no dialect except Doric. Ionic *φθήρω* never existed, despite Gustav Meyer. *η* by compensatory lengthening is then the only case of touch between Arcado-Cyprian and Doric alone. This Doric feature is therefore the earliest and only loan formation from Doric in the period of a yet undivided Arcado-Cyprian dialect; and is, therefore, not to be held to be a proof of the original Doric character of the dialect. An Arcado-Cyprian *ἔχεν* is not necessarily Doric as *-ν*, as an inf. ending may be pre-dialectal.

On the other hand, the sympathies of A-C, Aeolic and Ionic-Attic are strongly marked. Whether this preference is the survival of the period when *ā* had not yet become *η* in Ionic-Attic, or is due to a later but pre-historic interconnection between Ionic-Attic and Aeolic, is a question that will probably always wait a solution. Arcado-Cyprian and Aeolic, despite their differences, stand in more pronounced opposition to Doric than do Thessalian or Boeotian, and seem to form a link in the chain which begins with Doric and ends with Ionic-Attic.

The statement must, however, not be construed to imply that Arcado-Cyprians and Aeolians were the first separatists from a common home.

The affinities of Arcadian in conjunction with Cyprian point, then, in the direction of a connection with those dialects which are allied to Aeolic. Confirmatory of this view is the fact that when Arcadian is regarded in conjunction with Cyprian, the total number of Aeolisms increases; but when taken alone and compared with Aeolic, Thessalian, or Boeotian, this number decreases. The older the form, so much greater the likelihood of it being Aeolic in its sympathies.

Arcadian when at variance with Cyprian presents a mixture of dialects scarcely equalled in any canton of Greece. Ionic, Doric, and the dialects of Aeolic coloring strive for supremacy. The correspondences with Aeolic alone are insignificant, the majority being survivals of pan-Hellenic speech. The connection with Thessalian is not much stronger. When Arcadian and Boeotian converge, the cases of agreement are either pan-Hellenic or Doric. Hence it cannot well be affirmed that the Aeolic preferences, when taken alone, without the aid of Cyprian, are vigorous.

The Ionic proclivities of Arcadian are few, but most pronounced (*ει*, infinitive in *-ναι*). The Doric features, too, stand out in clear light. But it is not true that whenever Arcadian agrees with dialects of the Aeolic type, it agrees at the same time with Doric. Importance should be placed upon this negation of Schrader's assertion, as also upon the character of many of the Dorisms of Arcadian, which are clearly survivals of pan-Hellenic. It is impossible to give a satisfactory explanation of the concurrence in Arcadian of forms of Doric, Ionic, and Aeolic coloring, a concurrence which is the more remarkable from the fact that the contest for supremacy between the forms date from a prehistoric period.

Aeolisms are passive, rarely aggressive. Where they exist in the language of the people they have existed from all times. They are never a force in dialect mixture save in literature. Their history is a history of their continual recession before Attic and Doric. The Aeolisms of Arcadian belong to the heart of the dialect; its Ionisms and Dorisms are adventitious. Achaia was the refuge of dispossessed Ionians; the Cynurians were Ionic before their Dorization. The Dorisms are explained by Strabo's remarks; *δοκοῦσι δὲ δωρίζειν ἅπαντες* (the Peloponnesians) *διὰ τὴν συμβᾶσαν ἐπικράτειαν*.

Traces of sympathy between Cyprian, apart from Arcadian, and Aeolic are few. When Cyprian agrees with Aeolic, Thessalian, or Boeotian, the points of agreement occur generally either in Doric or in Ionic. But these dialects have resisted longer than Doric the incursion of the Ionic *ν ἐφελευστικόν*. The connection of Arcadian with Aeolic is however stronger than that of Cyprian with Aeolic. With Doric, Cyprian shares much; which was only to be expected from the vicinity of Rhodes, Crete, and Pamphylia.

If we compare the cases of absolute disagreement between Arcadian and Cyprian, it is evident that either the one dialect or the other has preserved the more ancient form. Where the chronology of a phonetic change is still doubtful, or where two variant forms appear to antedate the separation, we can obtain no light as to the relative priority of Arcadian or of Cyprian. The "acorn-eating" Arcadians are less prone to admit innovations than their offspring. Thus they have preserved antevocalic *ε*, the ancient locative plural (though in but a

single example); they have resisted the expulsion of secondary intervocalic σ ; they have not changed τ from $\text{IE } q$ to σ , nor $\epsilon\lambda\lambda\omega\nu$ to $\alpha\lambda\omega\nu$. The Aeolisms of Cyprus are as a rule joint possessions of Arcadian and of Cyprian. It is more probable that Arcadians should have adopted Dorisms than that Cyprian should have lost Aeolism.

As in the offspring hereditary traits are reproduced which do not appear in the parent, so Cyprian is oftentimes the representative of a more ancient period than Arcadian; e.g., genitive in $-\eta\text{Fos}$ from $-\eta\sigma$ stems, the genitive $-\kappa\lambda\acute{\epsilon}\text{Feos}$; $\acute{\epsilon}\kappa\epsilon\rho\sigma\epsilon$ compared with the vexatious Arcadian $\phi\theta\acute{\epsilon}\rho\alpha\iota$; $-\acute{\alpha}\varsigma$ in the feminine genitive for the Arcadian $-\alpha\upsilon$; $-\epsilon\iota$ in the dative singular of $-\epsilon\varsigma$ stems.

The Association adjourned to meet at 7.45 A.M., Thursday.

BURLINGTON, VT., Thursday, July 14, 1887.

MORNING SESSION.

The Association assembled, pursuant to adjournment, at the Van Ness House, at 7.45 A.M.

The report of the Committee appointed to nominate officers was taken from the table and adopted; the officers for 1887-88 elected in accordance with the report are:—

President, Professor Isaac H. Hall, Metropolitan Museum, New York, N. Y.
Vice-Presidents, Professor Thomas D. Seymour, Yale University, New Haven, Conn., and Professor Charles R. Lanman, Harvard University, Cambridge, Mass.
Secretary, Professor John H. Wright, Harvard University, Cambridge, Mass.
Treasurer, Professor John H. Wright.

Additional members of the *Executive Committee*,—

Professor Martin L. D'Ooge, University of Michigan, Ann Arbor, Mich.
 Professor Basil L. Gildersleeve, Johns Hopkins University, Baltimore, Md.
 Professor Francis A. March, Lafayette College, Easton, Pa.
 Professor Bernodotte Perrin, Adelbert College, Cleveland, Ohio.
 Professor William D. Whitney, Yale University, New Haven, Conn.

The report of the Committee appointed to propose time and place of next meeting recommended that the Twentieth Annual Session be held on the second Tuesday in July, at Amherst College, Amherst, Mass. The report was accepted and adopted.

Professor Francis A. March, as Chairman of the Committee on the Reform of English Spelling, reported that correspondence had been begun with members of the London Philological Society in regard to preparing a manual dictionary, using the amended spellings heretofore recommended.

On motion the report was accepted, and the committee appointed in 1875 was continued for another year. It now consists of Messrs. March (chairman), W. F. Allen, Child, Lounsbury, Price, Trumbull, and Whitney.

On motion a resolution was adopted as follows: —

The American Philological Association desires to express, to the President and Trustees of the University of Vermont, its hearty thanks for the use of the College Chapel and of the Marsh Room of the Billings Library as the place of meeting, for kind attention in giving the members access to the buildings and collections of the University; further, to acknowledge its grateful appreciation of the hospitality of the Rev. Professor Lorenzo Sears and of Mrs. Sears in tendering the Association a reception, as also of the courtesies and labors of the local committee in making provision for the entertainment and comfort of the members.

The reading of papers was resumed.

17. Some Peculiarities of Diction and Syntax in Cicero's *De Legibus*, by Professor William A. Merrill, of Belmont College, College Hill, Ohio; read by Mr. L. H. Elwell.

This work of Cicero was never carefully elaborated, and owing to the three-fold division of the subject-matter, — viz. the philosophy of law, the antiquities of religion, and the constitutional order of the government, — the diction varies somewhat from that of his other works; add to this the fact that Cicero was inexperienced in handling the strictly philosophical dialogue, and that the book was never revised; hence, taken altogether, the defects of the work give it a special value in estimating Cicero's progress in literature, and for the general study of diction and syntax. The work contains two widely diverging styles: that of the ordinary dialogue, and that of the proposed codes of law. The exceptional constructions prevail in the third book. The text used was Vahlen's, 1883. Extremely rare constructions are marked with a star. The subjoined lists are thought to contain all exceptional occurrences and usages, both of grammar and diction, in the work.

I. The dialogue and its peculiarities were first discussed. **NOUNS.** — *Genitives*: corporis obsequium, I. 60; senatus iudicia conseruate patriae, II. 42; *cupiditatis teneri, III. 31; tributa capitis comitia rata esse posse, neque ulla priuilegii, III. 45; testamenti soluere, II. 51. *Datives*: obtemperatio *legibus, I. 42; intercessor rei, III. 42; adsentior Antiocho — magistro non audeo dicere, I. 54; abest historia litteris, I. 5. *Accusatives*: haec est enim quam Scipio laudat temperationem, III. 12; communicandum inter omnes ius (here cum o. was avoided for euphonic reasons), I. 33. *Ablatives*: ab aquila apicem impositum, I. 4; ab arboribus opacatur, frag. 5; ab ea natura, I. 33; natura tributum, I. 16; aetate coniunctus, I. 6; extenuato sumptu reciniis (doubtful), II. 59; qua praestamus beluis, per quam coniectura ualemus (euphonic), I. 30; frugibus atque bacis terrae fetu profunduntur, I. 25; cf. II. 39; regis *uitiis repudiatum, III. 15; so asperitate, I. 31; non metu, sed ea coniunctione conseruandas, I. 43; me deduxit in Academiam

perpauculis *passibus, I. 54; ut loco dicat, III. 40; praedictis multa uera cecidisse (doubtful), II. 33. *In general*: ad participandum alium alio, I. 33; uita apta uirtute, I. 56, emended, but *cf. Tusc.* v. 40.

Rare nouns: *operimentum, I. 56; *commendatrix, I. 58; *temperamentum, III. 24; *habilitates, I. 27, *ἐπ. eip.* *Philosophical*: malitia, I. 49; opinione, I. 28 and elsewhere; so natura, I. 45; notitia, I. 24; intellegentias, I. 26; igniculi, I. 33; *scabies (γαργαλισμός), I. 47; prudentia, uoluptas, and similar terms are frequent. Quaestiunculæ, II. 51; argutiae, librarioli, I. 7, are not philosophical, but uncommon. *Rare meanings*: umbraculum, III. 14, frag. 7; partes, I. 45, *cf.* II. 32; cooptatio, III. 27; cognitio, I. 14; ingenia (τὰ ἐμφυτά), I. 46; manu (disputed), II. 28; Nili, Euripi, II. 2; iter, I. 37; uoce ('style'), II. 18; contio, II. 62; cessio (disputed), I. 10. Domus for domos, II. 40. *Juristic*: donatio, II. 50; usus capio, I. 55; lessum, II. 59; fraus, II. 60, III. 42; promulgatio, III. 43; syngrapha, hereditates, III. 18; deducta (deductio, Bait.), II. 50. *Collocations*: uir nemo, II. 41; os resectum (alii *reiectum, exceptum*); porca contracta, II. 55; ciuis e republica maxime, II. 66, *cf.* maxime e natura, II. 59; bonis uiris, III. 20; nullo loco, II. 12; in homines obsequia, sed etiam in deos caerimoniae (symmetry), I. 43; aliā quoque causā, II. 3; Aegeo mari (Rome), III. 36; ante oculos (= perspicuum), I. 48.

PRONOUNS. — *Relatives*: animal hoc quem uocamus hominem, I. 22; feriarum festorumque dierum — quas, II. 29; neruos iussit, quo (quos, Bait.) plures quam septem habebret, II. 39; quam (*sc.* humationem, from *humandi*), II. 63; quae natura agri, II. 67; qua rei publicae nomen uniuersae ciuitatis est, II. 5; *cuicuiusmodi, II. 13. *Reflexives*: inter eos communia, I. 23; cum res esset ad se delata, M. Scaurus inquit (Mad. senatum), III. 36; eipse, I. 34, *cf.* reapse, III. 18; suapte, I. 49; ellipse of reflexive, I. 53, II. 7, certain, III. 43, 45, doubtful. *Demonstratives*: hac familia (Theophrasti), III. 13-14; hanc for hoc, II. 5, *cf.* I. 49; hic, pleonastic, II. 65, *cf. Orat.* I 34, and also III. 5; ille, pleonastic, I. 42; II. 39, corrupt; ipse for principal person, II. 55, reflexive, I. 35, I. 16, I. 28, II. 16; ipsi, 'of their own motion', II. 50; idem, II. 5, hunc locum — idem ego te accipio dicere Arpinum (disputed). *Indefinite*: quo for aliquo, I. 41; qui ingenio sit mediocri — eius tenerē ius cum *scias*, II. 46. *In general*: sua sponte non aliena iudicantur, I. 45; nosmet, I. 28; uellem esse meus, II. 17; ellipsis (?), ante lucem iussit efferri, II. 60.

ADJECTIVES INCLUDING PARTICIPLES. — *Rare*: denicales, II. 55; catus, I. 45; subsiciua, I. 9. *Strange meanings*: reliqua for alia, III. 39; citeriora for humana, III. 3; priuatos for priuos (disputed), III. 44; inanis, II. 45; alienum, 'stranger,' II. 64; perpetua, 'general,' II. 37. *Rare uses*: color albus decorus cum in cetero tum maxime in textili; ceteri sumptus (gen.), II. 62; tuendae ciuitatis paratissimus (peritiss. Bait.), II. 66; sagax, multiplex (homo), I. 22; funebria, substantiue, II. 60. *Collocations*: ex alio alia, I. 52; *consequens ut for sequitur ut, I. 15. *Degrees*: amior, II. 4; diuinissimus, II. 45. — Sapiens temperatio, III. 17. *Agreement*: lucus — ille et haec quercus saepe a me *lectus; procreatum agrees with implied tribunatus, instead of potestas, III. 19; mundus ciuitas existimanda, I. 23. *Participles*: detestata, passive, II. 28; nata, abl. abs., III. 17, used of a habit, III. 30; adiunctum pietatis, II. 54; iussum, substantive, III. 44; so animantes, fem., I. 26; commendatum, II. 40; mortuos, nom., II. 67.

VERBS. — *Indic.*: labebar nisi, I. 52; cum proposueras, III. 48. *Subj.*: capiat,

'ought to take,' I. 8; si ut Aristo dixit solum bonum esse, I. 55; docuit ut nosceremus, I. 58; sequitur quibus sit, III. 40, *cf.* III. 41; posteaquam coepisset (disputed), II. 64. *Infinitive*: with notion of necessity, II. 57; after iubere, I. 19, III. 42; interest, conseruare (-ari, Bait.), II. 38. *Gerund, etc.*: *minuendi sumptus, predicate gen., II. 59; a suum cuique tribuendo, I. 19; fratrem laudando, I. 1; in iubendo, I. 33. *Tenses*: rhetorical logical present faceres, III. 30; present for future, II. 35; uidemus = uidere licet, II. 64; antequam uenias, II. 9. *Sequence*: tanta sententia est ut ea tribueretur, I. 58; *cf.* potest, III. 14; dantur — indicia ut esset, III. 40; confusion of thought between futurus sit and cernit in I. 59, where cernat is written. Liceat after an infin. dependent on secondary tenses, III. 42, *cf.* III. 30; subj. of generalization, essent adiuncta — uenerit, II. 48, so II. 64. *Number*: quaeruntur qui astringantur, II. 48. *Rare*: aucupari, III. 35; responsitare, I. 14; uentitare, I. 13; apisci, I. 52. *Unusual meanings*: residentur, II. 55; debeo, III. 26, and reprehendere, II. 34, in original sense; decerno, of one senator, III. 42; ignorare, I. 6, 'disregard'; praestare = cauere ut, I. 14; cogere, of logical result, II. 33; noscat, 'admit,' I. 11; efficitur for conficitur, III. 27; conuenire, I. 53; nata for orta, III. 17; prodere for tradere, III. 4; inflare, metaphorically, I. 6; obtineri id est obstisti, III. 34; concilium permouet, III. 42; tollere leges, II. 31; sancire, 'forbid under punishment,' III. 46; appellare, to things, I. 40. *Simple for compound*: creuerit, III. 28; prenderit, I. 61. *Juristic*: parentare, II. 54; usu capi, II. 61. *General*: constet ex uexandis animis et ea fama (disputed), II. 44; mox uidero, II. 54; seminari (of a tree), I. 1; nectere ex, I. 52. *Ellipsis*: esse, in III. 47, III. 27, III. 28, III. 19, II. 32, all supplied by Baiter; assentior ut, II. 11; adduci hanc, II. 6; iubet understood from uetat, II. 67, *cf.* II. 15; sequi omitted, II. 69. *Finally*: mucronem exacuere, III. 21; spero for ut spero, II. 69.

ADVERBS. — certum, I. 52; sollerter, I. 26; ne, II. 68 and 66. Ita = ualde, II. 3 (disputed); ut comparative, II. 45; cur for propter quod, II. 53; quemadmodum = ut, II. 55. *Uncommon meaning*: nimis, with no censure, I. 27, *cf.* non nimis, III. 14. *General*: lessum quasi lugubrem eiulationem, II. 59; perniciose populari, III. 26; quamuis enumeres multos, III. 24; praeterquam, separated, III. 45.

PREPOSITIONS. — tenus, III. 14; inter for intra (corrupt), I. 56. *Ellipsis* of in with Esquilliis, II. 28, with inlapsa animos, II. 39. *General*: de unctura — unctura tollitur, II. 60; in qua erubescere, I. 41.

CONJUNCTIONS. — *Copulative*: et, 'also,' II. 63, III. 4, I. 33, I. 31, III. 4, I. 40, all explained away or emended by the purists; introducing a comment, III. 44; consecutive, I. 23; et = sane, II. 7; et non for ac non, II. 44; explicative, II. 43, 53, I. 41; et for que, I. 55; *et — etiam, III. 4; *et — et, concluding a catalogue, II. 47; et — neque, I. 12; according to some, et — que, I. 31, 44; que connects periods in II. 25, *cf.* II. 30; *atque quidem, II. 24; *atque — atque, III. 20; neue — neue, II. 67; *nec = non, I. 56; nec — neque and neque — que, I. 39, 42. *Adversative*: sed = 'enough of that, but,' III. 19; *conditional*: sin quid, I. 32; *causal*: ex eo quia, I. 43; *final*: ut — sacris ne adligentur, II. 50; *illative*: igitur, at the beginning, I. 18; II. 14; *interrogative*: an inclines to the negative in III. 33 (Madv. iam); numquid — an, II. 5. *CORRELATIVES*: *modo — uicissim, II. 43; eatenus — quoad, I. 14; ille quidem — sed tamen, I. 6, *cf.* I. 54; etsi, with no tamen, III. 29; non dicam — sed, without descensio ad minus, I. 22; deinde etiam deinceps, III. 43.

PLEONASM: plerumque solet, I. 19; nihil esse turpius quam est quemquam legari, III. 18, *cf.* I. 14; sane quam breui, II. 23; other cases, II. 60, I. 53, I. 1, I. 14; legal, II. 48, II. 1, III. 1. Notable asyndeton, II. 42. ELLIPSIS: nihil ad Caelium, I. 6; meliores (homines) from humanum, I. 32; a Theophrasto, *sc.* doctus, III. 14; Gracchi (tribunatus), doubtful, III. 20; praetereantur, *sc.* quae dicta sunt, II. 60.

GENERAL: proverbs—toto pectore, I. 49; praedicari de Remo et Romulo, I. 8; ad contrariam laudem in uirtutem, I. 51; absolute asyndeton, III. 19, *cf.* I. 62; religiones, plural, II. 16; qui modo ingenio possit moueri, II. 46; anacoluthia, III. 13, II. 56; subordination to conditional clause, aut si capiat, aut si minor pars legata sit, si inde ceperit, II. 49.

II. CODES.—In for apud, II. 19, III. 40; causal ablative gerunds, III. 8. RARE NOUNS: anfractibus, II. 19; feturae, II. 20; uirgeta, *ŷr. ŷlp.* II. 21; fulgura, II. 21; acuitates, III. 7, 9. *Rare meaning:* opes, 'display,' uindex, 'avenger,' II. 19. *Archaic forms:* loedis, II. 22; duellum, III. 9; coerari oesus, III. 10; consulis (m. pl. n.), III. 9. *Demonstrative pronouns:* ollos, II. 19; sisque, II. 21; im, II. 60; sos, II. 22; idem, II. 22, III. 10. *Indef.:* ast quid, III. 10. *Adjectives and participles:* ecfata, II. 20, 21; ostenta, II. 20; obstita, II. 21; uncula, II. 19; modica, III. 10. *Gerundive:* neue petenda neue gerenda potestate; *present for future,* III. 10. VERBS: oesus esse = opus esse, III. 10; apparento, II. 20; sacrum commissum, II. 20; migrare = uiolare, III. 11; *asciuerit, II. 20; *sanciuo, II. 22; cadat, impersonal, II. 19; *archaic:* iussit, II. 21; faxit, II. 19; clepsit, rapsit, 22; prohibessit, III. 6, 10; escunt, II. 60; appellamino, III. 8; coerari, III. 10; cosciscuntur, III. 10; turbassitur, III. 11; *simple for compound:* creuerit, III. 8, 9, II. 21; piare, II. 21; *active forms of deponents:* tuento, III. 7; partiunto, 7; patiunto, 11; *omission of si:* III. 10 and III. 11, where ast is used. ADVERBS: propius, II. 61; semul, III. 11. PREPOSITIONS: endo, II. 19; se, II. 60; ergo, II. 59, III. 9. CONJUNCTIONS: et, explicative, II. 21; nec = et non, III. 6; me = non, III. 9, 11; neue, II. 19, 21; nec with imperat., III. 11; ast occurs, II. 19, III. 9, II. 24, II. 60, III. 10. Abstract for concrete, III. 9, 7.

18. The Etymology of *akimbo*, *brick*, *hodden*, by Mr. C. P. G. Scott.

19. Music in Speech, by Martin Luther Rouse, Esq., of Toronto, Canada.

The paper aimed to show that vowels are musical notes and consonants musical instruments, and to exhibit the relative melody and harmony of certain modern languages.

Accepting as simple vowel sounds the ones marked $\bar{1}$, $\check{1}$, $\bar{2}$, $\check{2}$, $\bar{3}$, $\check{3}$, $\bar{4}$, $\check{4}$, $\bar{5}$, $\check{5}$, $\bar{6}$, $\check{6}$, $\bar{8}$, $\check{8}$ in the first part of the table given below, and among them as pairs those arranged there as such, the essayist, by appeals to the ear, confirmed by analogies in spelling that run through various languages, adds five more true vowels perceived to be present in one or other of the four chief languages of western Europe, making sixteen vowels in all,—eight long and eight short,—which are severally contained in the sixteen German words first given below.

To the usually recognized diphthongs he also adds six, while rejecting one, and thus makes nine in the four languages taken together. Two long vowels cannot

TABLE OF THE VOWEL SOUNDS USED IN THE FOUR LANGUAGES OF WESTERN EUROPE.

<i>Simple.</i>		FRENCH.		GERMAN.		ITALIAN.	
ENGLISH.							
ī boom	ī bush	boue,	bourré	kuh,	kund	piu,	fanciul ¹ la
2 mote	2 morass'	maux(pl.),	mot	wo,	wozu'	no,	poéta
3 dawn	3 don	corps,	correcte	dort,	dotter	fuo'ri,	por're
4 path	4 ———	pâte,	patte	kahn,	kann	ma,	ánno
5 burn	5 bun	de,	———	liebe, ¹	liebes	———,	———
6 age	6 edge	dé,	dette	spät,	speck	tre,	bello,
7 ———	7 ———	su,	sut	kühl,	kümmel	———,	———
8 keen	8 kin	vigne,	innocent	nie,	nicht	si,	ágio
<i>Compound.</i>							
4 + ī	how, house	———		braun,	braut	———	
3 + 8	joys, choice	———		scheu,	scheut	———	
6 + 5	pare, parry	père,	———	bär,	———	sera	
4 + 8	side, site	taille,	———	teig,	teich	———	
5 + 7	———	neuf,	———	können,	———	———	
3 + ī	———	———,	motte	———,	gold	———	

blend to make a diphthong; but one of the elements of this dubl sound must be a short vowel: therefore he rejects the collocation portrayed by *eu* in the French *deux*, or by *ö* in the German *schön* (as this word is usually pronounced by the literate), it being composed of the long vowel herd in *burn* followed by the long vowel herd in the French *su*; but the collocation represented by *eu* in *neuf* or *ö* in *können* he treats as a true diphthong, since it is composed of the long vowel of *burn* followed by the short vowel of the French *sul*. The sound of *a* in *pare* is a

¹ According to the authoritative pronunciation, tho it is very comon to giv the letr here sound ö; those who so pronounce wil be satisfied with *lieber* as illustrative.

diphthong made up of the sound of *e* in *edge* followed by that of *u* in *burn*; and the sound of *a* in *parry* is a diphthong made up of the *e* sound in *edge* followed by the *u* sound in *bun*. In a diphthong, moreover, the two sounds must not belong to the same original pair, otherwise the collocation is a drawl; such is the sound of the French *ê* in *même* = $\bar{e} + \bar{e}$.

The diphthongs on the left side of each language column, except the one heard in *neuf* and *können*, as aforesaid, are made up of a short vowel followed by a long one; those on the right side of two short vowels. The essayist finds that if a diphthong ends a word or precedes a flat consonant its last component is a long vowel sound, whereas if it precedes a flat consonant its last component is a short vowel, the length or shortness of the last component before *r*, however, as before nasal consonants, depending generally upon whether these end a word or stand in the middle of one (cf. *pare* and *parry*, *braun* and *können*).

In the first part of our table all the simple sounds, and in the second part all the diphthongs occurring in a particular language are denoted by the italicized portions of words belonging to it that contain them; and we are thus able to see which language or languages possess more vowels or diphthongs than another; or, in other words, which have the greater capacity for melody and harmony, since vowels are analogous in their varieties to musical notes and diphthongs to chords. Thus Italian has the least capacity for either harmony or melody. French has a far less capacity for harmony than English, though it excels English in melodious capabilities; while German, equalling our own tongue in potential harmony, greatly outvies it in potential melody. If, again, we compare passages of poetry of equal lengths in English, French, and German,¹ we find the variety in notes and chords turned to equally good account in German and English, but to less advantage in French. So that, were it not for the too frequent occurrence of sibilants, which is like an excess of brass instruments in an orchestra, German would be actually the most musical language of the three, and of course of the four too, since the monotonous Italian must be far behind the rest. But as a strong set-off to their poverty in sound, French, by leaving its final consonants in words usually unsounded before other words beginning with consonants, and Italians, by carefully shunning all harsh collocations of consonants within its words and letting hardly one of them ever end with a consonant, prevents many cacophonies that disfigure both German and English. German and English, then, abound more in alternations of notes and chords, but Italian and French plan their orchestras better. But this reasoning about the musical character of languages is not mere analogy: vowel sounds not only bear a relation to consonant sounds like that which musical notes do to instruments, but every vowel stands at a definite musical interval from the vowel next to it in the order we have given, when the vowels are read at the same pitch of voice, and consonants will be found to be truly classified exactly like musical instruments throughout every division, while the consonants that stand in any particular category more resemble in the quality they impart to vowels the instruments that stand in the corresponding category than they resemble any others.

If the long vowels themselves or the typical words that contain them be read aloud without change of pitch,² in the order of the table, a chromatic scale of eight

¹ As was done at the reading of the paper.

² Taking particular care not to drop the voice at the last vowel or last word. Both experiments were made at the reading.

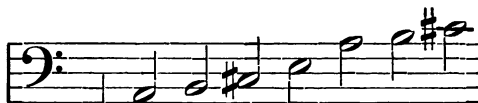
notes will be heard, which in the essayist's base voice starts from *e* below the base staff. Thus: —



oo oh aw ah u(r) eh ü ee
Italian or German: ū ō o(r) ā e(r) ē ü ī
French: ou o o(r) a e(final) é u ī

The short vowels, again, when read in the same way, will make a chromatic scale that begins and ends a tone and a half above the former one.

If, on the other hand, the long vowels be whispered in order with the same precaution, they will form a scale of this nature, composed of two exactly similar portions: —



oo oh aw ah u(r) eh ü ee

And if the short vowels be so treated, they will form the same scale a tone and a half higher up.

Among the long vowels when spoken it will be noticed that those which by the majority of nations are represented with the five vowels make an independent minor scale of five notes; also that *u*, *a*, and *i*, which by some theorists are held to have been the only original vowels, form the chord of this scale. In whispering the vowels, a secondary descending scale will be heard from *ur* to *ee*, but much fainter, which is, I think, diatonic.

Following is the twin classification of consonants and instruments.

CONSONANTS.

	<i>Sharp.</i>		<i>Flat.</i>		<i>Nasal.</i>
	Unaspirated.	Aspirated.	Unaspirated.	Aspirated.	
<i>Mutes.</i>					
Labial.	Rið.	Giv.	Riþ.	Rift.	Rim.
Dental.	Bead.	Breathe.	Beat.	Breath.	Bean.
Palatal.	Log.	Loch (Ger. or Sc.).	Sick.	Sich (Ger.).	Sing.
Pharyngeal.	Hall.				
<i>Spirants.</i>					
Liquid. {	Rue.	Rue (Fr.).	Lay.	Lait (Fr.).	
	Marring.	Mare (Fr.).	Sell.	Celle (Fr.).	
Sibilant. {	Leal.	Geant (Fr.).	Seal.	Sheet.	
	Lees.	Lesion.	Lease.	Leash.	

¹ Or *help, milk, Hibernice.*

INSTRUMENTS.

<i>Beaten.</i>	<i>Full-toned.</i>	<i>Slender-toned.</i>	<i>Reed.</i>
Wooden.	Wood on Wood. <i>Xylophone.</i>	Metal on Wood. <i>Saw.</i>	<i>Clarionet.</i>
Metal.	Wood on Metal. <i>Harmonicon.</i>	Metal on Metal. <i>Musical Box.</i> ¹	<i>Reed Organ.</i>
String.	Hand on String. <i>Harp.</i>	String on String. <i>Violin.</i>	<i>Eolian Harp(?)</i> .
Membrane.	<i>Drum.</i>		
<i>Blown.</i>			
Wooden.	Blown from Side. <i>Flute.</i>	Blown from Top. <i>Flageolet.</i>	
Metal.	Blown from Side. <i>Organ.</i>	Blown from Top. <i>Trumpet.</i>	

The aspiration of consonants by its prolonging force corresponds to the loud pedal or swell.

The following paper was read by title : —

20. *Ancipiti* in Cæsar, *B. G. I.* 26, by Professor William S. Scarborough, Wilberforce University, Wilberforce, Ohio.

After referring to a number of editors of Caesar and reviewing their interpretations of the passage, the writer took exception to the usual rendering of *ancipiti* ('double') and suggested 'doubtful' or some equivalent.

He argued that the sense requires that *anceps* should be translated in such manner as to express the uncertainty of the struggle between the contending forces — which was of more importance to Caesar than the position of the troops could have been: that 'double' is not a primary but a secondary meaning of *anceps*, as its etymology shows. If having "heads all around" (probably the original meaning of *anceps*) means anything at all, it must mean instability, uncertainty. It may be reasonably concluded from an etymological standpoint that *anceps* means 'doubtful' in the sense of 'critical' or 'uncertain,' rather than 'double,' and it is clear that this meaning is most in keeping with the context of the lines referred to.

The Association adjourned at about 8.30 A.M., and many members and their friends made in company an excursion across Lake Champlain to the Ausable Chasm.

¹ Unsoftened by a thick wooden case.

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Cecil F. P. Bancroft, Phillips Academy, Andover, Mass.
E. H. Barlow, Tilden Seminary, West Lebanon, N. H.
George A. Bartlett, Harvard University, Cambridge, Mass.
William M. Baskerville, Vanderbilt University, Nashville, Tenn.
Isbon T. Beckwith, Trinity College, Hartford, Conn.
A. J. Bell, Victoria College, Cobourg, Ont.
George Bendelari, Harvard University, Cambridge, Mass.
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New York, N. Y.
Louis Bevier, Rutgers College, New Brunswick, N. J.
George H. Bingham, Pinkerton Academy, Derry, N. H.
—E. C. Bissell, Hartford Theological Seminary, Hartford, Conn.—
James Black, University of Missouri, Columbia, Mo.
James S. Blackwell, University of Missouri, Columbia, Mo.
Maurice Bloomfield, Johns Hopkins University, Baltimore, Md.

¹ This list has been corrected up to Aug. 15, 1888. Names where the residence is left blank are either of members who are in Europe, or of those whose addresses are not known to the Secretary.

C. W. E. Body, Trinity College, Toronto, Ont.
James R. Boise, Baptist Theological Seminary, Morgan Park, Ill.
Algernon Boys, Trinity College, Toronto, Ont.
Charles Frederic Bradley, Garrett Biblical Institute, Evanston, Ill.
Charles E. Brandt, Farmington, Conn.
H. C. G. Brandt, Hamilton College, Clinton, N. Y.
Fisk P. Brewer, Grinnell, Iowa.
H. S. Bridges, University of New Brunswick, Fredericton, N. B.
Le Baron R. Briggs, Harvard University, Cambridge, Mass.
James W. Bright, Johns Hopkins University, Baltimore, Md.
John A. Broadus, Southern Baptist Theol. Seminary, Louisville, Ky.
Jabez Brooks, University of Minnesota, Minneapolis, Minn.
Matthew H. Buckham, University of Vermont, Burlington, Vt.
Charles J. Buckingham, Poughkeepsie, N. Y.
Walter H. Buell, Scranton, Pa.
Sylvester Burnham, Madison University, Hamilton, N. Y.
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Frank A. Christie, Lawrenceville School, Lawrenceville, N. J.
Bradbury L. Cilley, Phillips Academy, Exeter, N. H.
Edward B. Clapp, Illinois College, Jacksonville, Ill.
Henry Clarke, 14 Ladbroke Grove, Notting Hill, London W., England.
Herbert M. Clarke, St. Stephen's College, Annandale, N. Y.
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W. C. Collar, Roxbury Latin School, Boston, Mass.
Hermann Collitz, Bryn Mawr College, Bryn Mawr, Pa.
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Joseph Randolph Coolidge, Boston, Mass. (44 State St.).
Oscar H. Cooper, Austin, Tex.
George Cornish, McGill University, Montreal, P. Q.
T. F. Crane, Cornell University, Ithaca, N. Y.
W. Craven, Knox College, Toronto, Ont.
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Miss C. T. Davis, Packer Institute, Brooklyn, N. Y.

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 Martin L. D'Ooge, Michigan University, Ann Arbor, Mich.
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 Morton W. Easton, University of Pennsylvania, Philadelphia, Pa.
 T. T. Eaton, Louisville, Ky.
 William Wells Eaton, Middlebury College, Middlebury, Vt.
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 William Gallagher, Williston Seminary, East Hampton, Mass.
 James M. Garnett, University of Virginia, Albemarle Co., Va.
 Henry Garst, Otterbein University, Westerville, Ohio.
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 Horace Taft, Yale University, New Haven, Conn.
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 John Phelps Taylor, Andover Theological Seminary, Andover, Mass.
 John Tetlow, Girls' High School, Boston, Mass.
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 William E. Thompson, Genesee Wesleyan Seminary, Lima, N. Y.
 Edward M. Tomlinson, Alfred University, Alfred Centre, N. Y.
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 James S. Trueman, Johns Hopkins University, Baltimore, Md.
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 James C. Van Benschoten, Wesleyan University, Middletown, Conn.
 Frank L. Van Cleef.

Addison Van Name, Yale University, New Haven, Conn.
George M. Wahl, Thayer Academy, Braintree, Mass.
Benjamin B. Warfield, Princeton Theological Seminary, Princeton, N. J.
Frank M. Warren, Johns Hopkins University, Baltimore, Md.
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Alexander M. Wilcox, University of Kansas, Lawrence, Kan.
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Daniel Wilson, University College, Toronto, Ont.
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Henry Wood, Johns Hopkins University, Baltimore, Md.
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[Number of subscribing Institutions, 58.]

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Reale Accademia delle Scienze, Turin.
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[Number of foreign Institutions, 35.]

[Total, (324 + 58 + 35 =) 417.]

CONSTITUTION
OF THE
AMERICAN PHILOLOGICAL ASSOCIATION.

ARTICLE I.—NAME AND OBJECT.

1. This Society shall be known as "The American Philological Association."
2. Its object shall be the advancement and diffusion of philological knowledge.

ARTICLE II.—OFFICERS.

1. The officers shall be a President, two Vice-Presidents, a Secretary and Curator, and a Treasurer.
2. There shall be an Executive Committee of ten, composed of the above officers and five other members of the Association.
3. All the above officers shall be elected at the last session of each annual meeting.

ARTICLE III.—MEETINGS.

1. There shall be an annual meeting of the Association in the city of New York, or at such other place as at a preceding annual meeting shall be determined upon.
2. At the annual meeting, the Executive Committee shall present an annual report of the progress of the Association.
3. The general arrangements of the proceedings of the annual meeting shall be directed by the Executive Committee.
4. Special meetings may be held at the call of the Executive Committee, when and where they may decide.

ARTICLE IV. — MEMBERS.

1. Any lover of philological studies may become a member of the Association by a vote of the Executive Committee and the payment of five dollars as initiation fee, which initiation fee shall be considered the first regular annual fee.
2. There shall be an annual fee of three dollars from each member, failure in payment of which for two years shall *ipso facto* cause the membership to cease.
3. Any person may become a life member of the Association by the payment of fifty dollars to its treasury, and by vote of the Executive Committee.

ARTICLE V. — SUNDRIES.

1. All papers intended to be read before the Association must be submitted to the Executive Committee before reading, and their decision regarding such papers shall be final.
2. Publications of the Association, of whatever kind, shall be made only under the authorization of the Executive Committee.

ARTICLE VI. — AMENDMENTS.

Amendments to this Constitution may be made by a vote of two-thirds of those present at any regular meeting subsequent to that in which they have been proposed.

PUBLICATIONS OF THE ASSOCIATION.

THE annually published "Proceedings" of the American Philological Association contain an account of the doings at the annual meeting, brief abstracts of the papers read, reports upon the progress of the Association, and lists of its officers and members.

The annually published "Transactions" give the full text of such articles as the Executive Committee decides to publish. The Proceedings are bound with them as an Appendix.

The following tables show the authors and contents of the first eighteen volumes of Transactions:—

1869-1870. — Volume I.

Hadley, J.: On the nature and theory of the Greek accent.

Whitney, W. D.: On the nature and designation of the accent in Sanskrit.

Goodwin, W. W.: On the aorist subjunctive and future indicative with *ἔστω* and *οὐ μή*.

Trumbull, J. Hammond: On the best method of studying the North American languages.

Haldeman, S. S.: On the German vernacular of Pennsylvania.

Whitney, W. D.: On the present condition of the question as to the origin of language.

Lounsbury, T. R.: On certain forms of the English verb which were used in the sixteenth and seventeenth centuries.

Trumbull, J. Hammond: On some mistaken notions of Algonkin grammar, and on mistranslations of words from Eliot's Bible, etc.

Van Name, A.: Contributions to Creole Grammar.

Proceedings of the preliminary meeting (New York, 1868), of the first annual session (Poughkeepsie, 1869), and of the second annual session (Rochester, 1870).

1871. — Volume II.

Evans, E. W.: Studies in Cymric philology.

Allen, F. D.: On the so-called Attic second declension.

Whitney, W. D.: Strictures on the views of August Schleicher respecting the nature of language and kindred subjects.

Hadley, J.: On English vowel quantity in the thirteenth century and in the nineteenth.

March, F. A.: Anglo-Saxon and Early English pronunciation.

Bristed, C. A.: Some notes on Ellis's Early English Pronunciation.

- Trumbull, J. Hammond: On Algonkin names for man.
 Greenough, J. B.: On some forms of conditional sentences in Latin, Greek, and Sanskrit.
 Proceedings of the third annual session, New Haven, 1871.

1872. — Volume III.

- Evans, E. W.: Studies in Cymric philology.
 Trumbull, J. Hammond: Words derived from Indian languages of North America.
 Hadley, J.: On the Byzantine Greek pronunciation of the tenth century, as illustrated by a manuscript in the Bodleian Library.
 Stevens, W. A.: On the substantive use of the Greek participle.
 Bristed, C. A.: Erroneous and doubtful uses of the word *such*.
 Hartt, C. F.: Notes on the Lingoa Geral, or Modern Tupi of the Amazonas.
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