GREEKS AND GOTHS:

A STUDY ON THE RUNES.

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PREFACE.

In following out certain inquiries as to the history and connection of early Alphabets, it became necessary that I should make myself acquainted with what had been written on the origin of the Runes. It speedily became manifest that none of the current theories on the subject were sufficient to explain the facts. A re-examination of the conditions of the problem gradually led to the wholly unexpected conclusions which are set forth in the following pages.

I have thought it best to publish these results in a separate form, instead of including them in a larger forthcoming work on the History of the Alphabet, because it seemed needful, in putting forth a theory so entirely novel, to state the argument with greater fullness of detail, and in

a more technical form, than would be desirable or proportionate in a more comprehensive work.

When this book was ready for the press I accidentally discovered that Rask, the greatest of Scandinavian scholars, believed that the view which I have advocated would ultimately prove to be the true solution of the problem of the Runes. I do not find, however, that he ever worked out the details of the theory or even formally propounded it.

I have included in the volume a subsidiary investigation into the Origin of the Oghams, which are intimately connected with the Runes.

In expressing my obligations to Professor Stephens, and my admiration of his monumental work, I am bound to acknowledge that his unwearied toil and his minute accuracy have made easy a task which would otherwise have been difficult, if not impossible.

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§ 1. The Futhorcs.

At the time when the Roman alphabet was introduced by Christian missionaries into Northern Europe some of the Teutonic nations had been for several centuries in possession of a peculiar alphabet of their own. This ancient alphabet was chiefly used by the Scandinavians, the Northumbrians, and the Goths. The characters are called Runes, and the alphabet bears the name of the Futhorc, from the first six runes,

ᚠ, ᚢ, ᚦ, ᚩ, ᚱ, ᚳ, *f*, *u*, *th*, *o*, *r*, *c*.

The one unsolved problem in the History of the Alphabet is the origin of these Runes. That they should have been independently invented by the Teutons is a solution which must be regarded

as quite out of the question. The history of the invention of alphabetic writing shows the enormous difficulty of such an undertaking. It was only through the slow developments of many centuries that the united genius of the Phœnicians and the Greeks, the two most cultured races of the South, succeeded at last in elaborating a pure alphabet out of the cumbrous picture writing of the Egyptian Hieroglyphics. That an equivalent result should have been attained off hand by any semi-barbarous Teutonic tribe is quite incredible. There are, moreover, such striking resemblances between several of the runes and the corresponding letters of various Mediterranean alphabets, that the mathematical chances against such a series of accidental coincidences are absolutely overwhelming. On these grounds it has been universally admitted that the Runes must, in some unknown manner, have been derived from that one great parent alphabet to which modern research has affiliated almost every other alphabet of the world — Ethiopic, Arabic and Hebrew, Greek, Latin and Etruscan, Indian and Tibetan, Mongol and Malay.

Runic inscriptions have been found scattered over a vast region extending from the Danube to the Orkneys. The most ancient of these inscriptions are earlier in date by at least a thousand years than the most modern. During this long period a constant development was going on, and hence we find, as was to be expected, that the runes of different countries and of different periods present very considerable variations. They may all however be classified into three main divisions — the Gothic, the Anglian, and the Scandinavian. The characteristic runes of these three classes are here tabulated for handy reference.

In this Table the first column, which is styled for convenience the GOTHIC FUTHORC, contains the twenty-four primitive runes, which are used indifferently in all countries in the earliest inscriptions. These early inscriptions, which are about 200 in number, range from the third to the sixth centuries of our era. Twenty-three of these runes appear in their order, as a Futhorc, on a golden Bracteate or medal, from Vadstena, in East Gothland (Sweden), which may be assigned

Table of Runes.

Names.	Values.	Runes. I. Gothic.	II. Anglian.	III. Scandinavian.	IV. Alphabet of Ulphilas.	
fech, feh, fe	*f*	ᚠ ᚡ	ᚠ ᚡ	ᚠ	𐍆	*ϕ*
ur, hur	*u*	ᚢ ᚤ	ᚢ ᚤ	ᚢ	𐍅	*ου*
thorn	*th*	ᚦ ᚧ ᚦ	ᚦ	ᚦ	𐌸	*δ*
asc, æsc, os	*a, æ, o*	ᚨ ᚫ	ᚪ ᚫ	ᚬ	𐌰	*α*
rad, rat	*r*	ᚱ ᚱ	ᚱ	ᚱ ᛦ	𐍂	*ρ*
cen, kaun	*c, k*	ᚲ ᚳ	ᚴ	ᚴ	𐌺	*κ*
gebo, gifu	*g*	ᚷ	ᚷ		𐌲	*γ*
wen	*v, w*	ᚹ	ᚹ		𐍅 ᚹ ⊙	v, hv
hegl, hagal	*h*	ᚺ ᚻ ᚼ ᚽ	ᚻ	ᛅ	𐌷	h
nyd, nod	*n*	ᚾ ᚿ	ᚾ	ᚾ ᚿ	𐌽	*ν*
is	*i*	ᛁ	ᛁ	ᛁ	𐌹	*ι*
ger, yr, ar	*y, ge, j, a*	ᛄ ᛃ ᛅ	ᛄ	ᛦ ᛅ	𐌾	j
hic, ih, eoh	*ih, i, eo*	ᛇ ᛇ	ᛇ		𐍆	*ζ*
peorth, perc	*p*	ᛈ	ᛕ ᛢ	ᛕ	𐌠	*π*
ilix, calc	*a, i, k, x*	ᛉ	ᛉ		𐌵 𐌀	q
sigil	*s*	ᛋ	ᛋ	ᛋ	𐍃	*σ*
tir	*t*	ᛏ	ᛏ	ᛏ ᛐ	𐍄	*τ*
berc, berith	*b*	ᛒ	ᛒ	ᛒ	𐌱	*β*
hæc, ech, eh	*e*	ᛖ ᛗ	ᛗ		𐌴	*η*
man	*m*	ᛗ	ᛗ	ᛘ ᛦ	𐌼	*μ*
lagu	*l*	ᛚ	ᛚ	ᛚ	𐌻	*λ*
ing	*ng*	ᛜ ᛝ	ᛝ		𐌧	*χ*
dag, dæg	*d*	ᛞ ᛞ	ᛞ		𐌿	*θ*
othil	*o, œ*	ᛟ ᛟ	ᛟ		𐍉	*ω*

to the middle of the fourth century A.D. Nineteen of them appear also as a Futhorc on a fifth century broach, found at Charnay in Burgundy.

The second column contains the corresponding runes of the ANGLIAN FUTHORC, which is used on the Ruthwell Cross and on several Northumbrian monuments of the seventh and following centuries. It is given as a Futhorc in sundry MSS. of the eighth and ninth centuries, the earliest form appearing on a sword of the sixth or seventh century, which was found in the Thames, near London. The Anglian Futhorc usually contains from four to twelve supplementary runes, which are either survivals or developments of the primitive Gothic runes. The most important of these additional runes are—ᚪ, *a*; ᚫ, *æ*; ᚩ, *o*; ᚣ, *y*; ᛠ, *ea* and *q*; ᛩ, *k*; ᛝ, *st* and *ss*.

In the third column is given the latest, or SCANDINAVIAN FUTHORC. It attained its final form about the tenth century, and contains only sixteen runes. We find it given as a Futhorc on a slab in the Picts' House at Maeshowe in

Orkney, and on a twelfth century font at Bærse in Denmark. Some 2000 runic inscriptions, nine-tenths probably of the whole number extant, are written in this Scandinavian Futhorc, which was used in Norway, Sweden, Denmark, Orkney, Cumberland, and the Isle of Man.

The fourth column contains the MŒSO-GOTHIC ALPHABET, which was compiled in the fourth century by Ulphilas, Bishop of the Goths. It is evidently based upon the ancient Gothic Futhorc, with two or three additions and several modifications derived from the contemporary Byzantine Alphabet.

All the evidence, internal and external, goes to prove that the Gothic Futhorc exhibits the earliest forms of the runes. If we compare it with the later Futhorcs, Anglian or Scandinavian, it will be seen that many of the original runes, such as Nos. 1, 2, 3, 5, 10, 11, 17, 18, 21, remained almost unchanged, some, Nos. 7, 8, 13, 23, fell into disuse; others, Nos. 4, 14, 15, 22, were modified in form or value; while in a few cases, Nos. 9, 12, 20, new developments have replaced the ancient characters.

§ 2. The Dated Monuments.

It is manifest that any investigation into the origin of the runes must start from the Gothic Futhorc, and it consequently becomes a matter of great importance to ascertain as accurately as possible the dates of the earlier inscriptions. It will therefore be needful to devote a few preliminary paragraphs to a summary of the evidence on which the dates of certain standard inscriptions have been approximately determined.

From the historical point of view the most important runic monument yet discovered is a massive gold torque, which is now in the Museum at Bucharest. This torque was found in 1838 at Buzeo in Wallachia, and formed part of a treasure buried within a ring-mound, which seems to have been the site of a heathen temple. The intrinsic value of the gold was about £4000[1]. The torque bears an inscription in unmistakable runes of the early type, which reads—

ᚷᚨᛏᚨᚾᛁᛟᚹᛁ ᚺᚨᛁᛚᚨᚷ,

'Dedicated to the temple of the Goths.' Here,

[1] Zacher, *Das Gothische Alphabet*, p. 47.

then, we have a very definite date. In the second century a portion of the Goths left their early homes east of the Vistula, and by the time of Caracalla had reached the plains of the Lower Danube. The torque evidently belongs to the heathen period. In the second half of the third century the Mœsian Goths were converted by Ascolius; in 325 Theophilus, one of their bishops, attended the council of Nice; and not long afterwards the Gothic runes were superseded by the alphabet of Ulphilas, who was born in 311. The Buzeo torque must belong to the period when the Goths were recent settlers in Dacia and still heathens. The great intrinsic value of the gold points to the dedication of the spoils of some great triumph—the plunder it may be of the camp of the Emperor Decius, or the ransom of the wealthy city of Marcianopolis. The most probable date seems to be between 210 and 250 A.D.

Another dated monument of nearly equal importance comes also from the region of the Danube. The Roman station of Drusomagus, now Druisheim, near Augsburg, was established

by Tiberius, and was finally destroyed in the convulsions of the fifth century. At the neighbouring village of Nordenhoff, the cemetery of the third Italian legion has been discovered, and 362 graves have been excavated. In these graves were found no less than forty-six Roman coins, ranging in date from Augustus to Valens. The interments, with few exceptions, are pre-Christian, and extend from the year 200 A.D. to 400. In one of these graves, along with many valuable articles of jewellery, was found a large silver broach, bearing on the back three separate runic inscriptions of ownership or donation. The names of the four successive owners of this broach, three men and a woman, are all of the Low German or Gothic type. The grave was that of a woman, probably the Gothic wife of some Roman officer. The broach can hardly have been deposited in the grave later than the year 400, probably it was much earlier, and, allowing for the four successive ownerships, the earliest of the three inscriptions carries us much further back. Judging from the character of the runes, two of the inscriptions seem to be earlier, and one

later, than the inscription on the Buzeo torque. The most probable date seems to be between 200 and 300 A.D.

There are also two dated 'finds' of the early Iron age, from Danish peat bogs, which were formerly shallow lakes. From the Vi Moss, in Fyn, was exhumed a collection of 3000 articles, such as swords, spear-heads, tools, and combs, evidently the hoard of some chief or trader, which was lost or hidden in the ancient lake. A bone comb and a wooden tool-handle were inscribed with the names of their former owners. A silver coin of Faustina the younger, who died in 175 A.D. gives us an approximate date, say 200 to 300 A.D.

The other 'find,' from the Nydam Moss, in Jutland, is of about the same date. It consisted of the contents of three war ships, sunk in storm or battle. The skeletons of the horses still retained the iron bits between their jaws. Along with arrows inscribed with runes were bronze broaches, silver clasps, iron swords, knives, and spears, together with thirty-four Roman coins, dating from 69 to 217 A.D.

Second only in interest to the Buzeo torque is the silver-gilt broach which was found in 1857, together with a great quantity of ornaments and weapons, on the battle-field of Charnay, at the confluence of the Saône and the Doubs. It was here that the Burgundians were defeated with immense slaughter by the Franks under Clovis. This broach, which no doubt belonged to one of the slain chieftains of the Burgundian host, bears, in addition to a runic inscription of ownership, a Futhorc, of which the first nineteen runes are legible. The Burgundians were closely connected with the Goths. Pliny associates Goths and Burgundians as dwelling near the Vistula, and at a later period we find Burgundians sharing the fortunes of their Gothic kinsmen in Mœsia, Italy, Illyria, and Asia Minor. The Burgundian Futhorc on the Charnay broach may therefore be regarded as essentially a Gothic alphabet of a date not later than the end of the fifth century, say 450 to 480 A.D. Great importance must be attached to the Charnay runes, not only because of their very precise and definite date, but because, though they are substantially identical

with the runes on the Buzeo torque, they exhibit in several cases forms which are distinctively more modern—notably ᚺ instead of ᚻ, and ᚢ instead of ᚨ. The forms of the runes in the Futhorc of the Vadstena bracteate, already referred to, are obviously of intermediate date. Taking the date of the Buzeo torque as about 250 A. D., and that of the Charnay broach as about 460, we may with some confidence assign the Vadstena bracteate to the year 350 or thereabouts[1].

But these few runic inscriptions to which, by some fortunate accident, it has been possible to assign approximate dates, are by no means the most ancient which we possess. The most primitive forms of the runes occur upon undated monuments. From Jutland we have the Thors-

[1] Some other dated monuments are of use in enabling us to trace the subsequent developments of the Runic writing. Such are the Collingham Cross, erected to the memory of King Oswin, murdered at Collingham, on August 20th, 650; the Bewcastle Cross, a memorial of King Alcfrith, who died in 670; and last, though not least, the magnificent Ruthwell Cross, on which Cædmon inscribed, not later than 680, a portion of his *Dream of the Holy Rood.*

bjerg Moss weapons and the Dalby diadem; and from Norway the Tune stone and the Fröhaug bronze, all of which bear inscriptions which may well belong to the second, or even the first, century of our era. In these inscriptions we find, among other signs of great antiquity, the runes ᚷ, ᛝ, and ᛜ, which are the remote prototypes of the third century runes ᚺ, ᛞ, and ᛟ.

The foregoing evidence establishes the existence, at a very early date, of a definite runic alphabet, which must have been a common possession of the Gothic tribes before the commencement of their dispersion. Now the southward movement of the Goths down the valley of the Dnieper began before the end of the second century, while their northward migration to the shores of Sweden must be assigned to a much earlier period.

In connection with this question of date it is important to notice that this ancient and widespread Gothic alphabet is wonderfully firm, definite, and uniform. To decipher the inscription on the golden torque of the Mœsian Goths by the help of the alphabet stamped on the golden

Bracteate from Swedish Gothland, is as easy as it would be to read an Australian tombstone by the aid of a spelling-book from the United States. Distant colonies employ the common alphabet of the mother country.

That the runic alphabet of the third century should be so widely diffused, and so uniform in its character, indicates a considerable previous antiquity. But these early runes are not the letters of any other known alphabet. The dated runes of the third century must already have had a long history, and must have undergone great developments and modifications. Their resemblances to the letters of the Mediterranean alphabets are sufficiently close to establish the fact of a common parentage, while the dissemblances are such as to demand a considerable period for their evolution. Just as the geologist postulates his needful milleniums for the development of the Horse from the Hipparion, so the student of Alphabets claims at once a period of some centuries as requisite for the growth of the forms of the earliest extant runes out of any other known Alphabet. The evolution of

the Greek Alphabet from the Semitic, of the Arabic from the Aramaic, of the Latin from the Greek, are processes which afford some sort of measure of the time that would be required for the development of the Gothic Futhorc out of any other alphabet—Greek, Latin, Phœnician, or Carthaginian.

After carefully weighing the whole evidence before us, it may, I think, be affirmed that the origin of the Runes must be placed a century or two, at the very least, before the commencement of the Christian era.

§ 3. The Phœnician Hypothesis.

We are now prepared, by this preliminary investigation, to discuss the possible sources from which the Goths could have obtained the elements of their ancient Alphabet. We may dismiss, to begin with, the pre-scientific belief of the last century, that some Scandinavian Cadmus—'the celebrated Woden,' as one writer ingenuously suggests—either brought the runes from Asia, or constructed a new alphabet on

eclectic principles,. borrowing some letters from the Greeks, some from the Romans, others from the Hebrews, and inventing the remainder as it pleased him.

At the present time the most generally accepted opinion seems to be that the runes were derived directly from the Phœnician alphabet. This view is upheld by the great authority of Professor Stephens[1], and is supported by the still greater name of Lenormant, who specifically derives the Runes from the Sidonian type of the Phœnician Alphabet[2]. Mr. Peile, the most recent writer on the subject[3], soberly sums up the prevalent view in these words: 'It may be asserted with some confidence that if the runes were genuine Alphabets (which there seems no reason to deny) they must have been derived from the Phœnicians in process of commerce. There is quite sufficient similarity in several of the characters to make this view antecedently probable,

[1] *Runic Monuments*, pp. 94, 834.

[2] *Essai sur la propagation de l'Alphabet Phénicien*, vol. I, table v, and p. 112.

[3] *Encyclopædia Britannica*, 9th edition, Art. *Alphabet.*

but any historical proof would be extremely difficult, if not impossible.' The only definite attempt to give any such 'historical proof' is, I believe, that which has been made by Professor Dieterich[1]. The essay of this learned Professor is unfortunately written in a spirit so wholly uncritical, that it is unnecessary to discuss his arguments or even to state them. This much, however, may be said with regard to any such attempt. The runes, in their earliest forms, must be affiliated to the Phœnician alphabet of some definite Time and Place. If, as Mr. Peile supposes, the runes were obtained from Phœnician traders, they must have come either from Sidon, Tyre, or Carthage. This must have been either before the destruction of Sidon by the Persians, or of Tyre by Alexander, or of Carthage by the Romans, conditions which limit us to those Phœnician alphabets which were prior to the fourth century B.C. It is also plain that the more primitive forms of the Phœnician letters, which are earlier in date than the great extension of

[1] *Enträthselung des Odinischen Futhork durch das Semitische Alphabet.* Stockholm, 1864.

the Phœnician commerce, as well as all the later developments of the runes, must be excluded from the comparison. These obvious conditions dispose of almost all the arguments which might be drawn from a superficial comparison of the tables of Phœnician and runic letters which are given by Professor Stephens[1]. Thus we can no longer compare the Semitic letters ‡, ⊧ and ⊬ with the late runes of similar form and value.

Moreover, it is contrary to all probability and analogy to suppose that developments of the Semitic letters which took place among the Greeks should have been again precisely and independently repeated in the case of the Gothic runes. It is, for instance, impossible to believe that the remarkable evolution of Aryan vowels out of certain Semitic gutturals and breathings should, by mere chance, have run a parallel course among the civilized Hellenes and the semi-barbarous Baltic tribes; or, to take an instance or two from among the consonants, it is in the highest degree improbable that both

[1] *Runic Monuments*, pp. 95, 116.

Greeks and Goths should independently have evolved the forms  ,  , and  out of the Phœnician letters  ,  , and .

Several of the runes are, no doubt, capable of explanation from Semitic letters, but even if we allow the utmost latitude of interpretation it will be found that more than half of the twenty-four primitive runes are left unexplained by the Phœnician hypothesis.

At present, however, this hypothesis hardly calls for serious refutation, for it has never yet been seriously propounded. Till some competent and sober scholar shall succeed in showing how the Gothic Futhorc, rune by rune, might have been evolved out of the Phœnician letters, there is really nothing substantial to be refuted. The mere assertion of a 'possibility,' which is all that has yet been given us by the propounders of the Semitic theory, affords no solid material for argument.

§ 4. The Latin Hypothesis.

A second hypothesis, which derives the runes from the Latin Alphabet, stands upon a different

footing. It is obviously suggested by the striking resemblance of the runes ᛒ, ᚲ, ᚠ, ᚺ, ᛁ, ᚱ, to the corresponding Roman letters B, C, F, H, I, R; and it is supported, not by the allegation of vague generalities and possibilities, but by definite arguments, brought forward by writers of repute, which can be grappled with and weighed.

The Latin theory was broached by Dr. Kirchhoff, five and twenty years ago[1], and has recently been worked out in considerable detail by Dr. Wimmer[2], a Danish scholar, whose elaborate arguments have been favourably regarded by MM. Earle, Rhys, Vigfússon, and Sweet, and by several German scholars of repute.

Dr. Wimmer supposes that the Runes were obtained from the Romans, through the Gauls, in the time of the early empire[3]. In order to account for certain Runes which plainly cannot be of Latin origin, he assumes that his hypo-

[1] *Das Gothische Runenalphabet.* Berlin, 1854.

[2] *Runeskriftens Oprindelse og Udvikling i Norden.* Kopenhavn, 1874.

[3] *Op. cit.* p. 150.

thetical Gaulish alphabet contained letters derived from the Massilian Greeks, and others descended from the old North-Etruscan alphabet!

The difficulties which beset this theory are of two kinds—general and special. Passing over the wholly unwarranted assumption as to the nature of Dr. Wimmer's imaginary Gaulish alphabet, the first objection that presents itself is that sufficient time is not obtainable for bringing about the changes which must have taken place in several of the letters. It has been already shown that the Goths possessed a uniform and well-established alphabet in the second century, before they migrated, one body northwards to Scandinavia, another southwards to the Danube. Now although ten runes of the Gothic Futhorc closely resemble the ten corresponding Roman letters, yet the other fourteen differ from them very considerably. Barely a century, if so much, is obtainable on Dr. Wimmer's theory for the spread of the runes, through a host of hostile tribes, from the Rhone to the Vistula, and for the extensive changes of form and value which must have taken place

in several of the letters if the runes are to be connected with the Latin alphabet. Setting aside for the present certain fatal phonetic difficulties, which will hereafter be considered, it is difficult to believe that a century could possibly suffice for Dr. Wimmer's supposed development of the runes ᚷ, ᛜ, and ᛉ out of C; of ᛗ out of E; or of ᛦ, a runic vowel and guttural, out of Z, a non-Roman sibilant, the existence of which in his Gaulish alphabet Dr. Wimmer fails satisfactorily to explain.

The geographical difficulty is as great as the chronological. If the runes were obtained from the Romanized Gauls, we ought to find them in the possession of those Teutonic tribes which bordered upon Gaul, or which in some way came into early contact with the Romans; that is, we should look for them among the tribes of the Rhineland or of the Upper Danube.

In German lands numerous inscribed stones have been found, dating from the first century downwards, but none of them bear runes; they are written in unmistakable Roman characters, which exhibit no trace of any tendency towards

the development of the characteristic runic forms. The regions in which runic stones abound are lands which were never part of the Roman empire, and which are as remote as can be from the Roman frontier. It is not in the Agri Decumates, or in Vindelicia, or in Rhætia, that runic stones occur, but in Norway, in Denmark, and more especially in the Swedish provinces of Gothland and Upland. It is the Jutes in Jutland, the Goths in Gothland, and the Mœso-Goths on the Euxine, far remote, all of them, from the frontiers of Gaul, who were acquainted with the runes at a time when they were unknown to the frontier tribes of the Cherusci, the Alemanni, the Istevones, the Chatti, and the Franks. Out of all the two thousand runic stones which have been discovered not one is claimed by Germany or France. The catalogue of the runic treasures of Germany consists of two broaches, a spear-head, and a finger-ring—the possessions, in all probability, of Gothic wanderers or exiles who chanced to die on German soil.

The preceding geographical evidence may be

held to prove that the runes could not have come from the frontiers of Gaul; while the chronological evidence shews that the Goths must have been acquainted with them long before they had any opportunity of acquiring a knowledge of the Latin alphabet.

There is another argument of a general nature which is not without its weight. A large number of the most ancient runic inscriptions are written in the early Greek fashion, either in a retrograde direction, from right to left, or boustrophedon. The gradual abandonment of this method of writing can be traced in the runic inscriptions as plainly as in the Greek. Now if the runic writing had been acquired from the Romans nothing can be more certain than that the earliest runic inscriptions would have been written from left to right according to the Roman method. It is contrary at the same time to probability and to experience that any nation which had once become acquainted with the more convenient method of writing should have forthwith reverted to the inconvenient archaic system.

Although the foregoing general considerations

are probably sufficient by themselves to dispose of Dr. Wimmer's hypothesis, at all events in the form in which he broaches it, yet it may be as well to inquire whether, supposing these preliminary obstacles to be in any way evaded, the Latin alphabet is capable of affording an adequate explanation of the origin of the individual runes.

Dr. Kirchhoff's attempt to supply such an explanation must at once be set aside as insufficient. Indeed he does not seem to be aware of the real nature of the problem to be solved. He contents himself with taking fifteen runes from the Scandinavian Futhorc of the tenth century, and comparing twelve of them with the corresponding letters of the Latin alphabet. He ought rather to have taken in hand the Gothic Futhorc of the third century, from which the Scandinavian Futhorc was derived. The real difficulties of the case only arise when we come to deal with the characteristic early runes, such as  , ,  ,  , ,  , ,  , all of which, as will be seen from the table on p. 4, disappeared from the later Scandinavian

Futhorc. These early runes Dr. Kirchhoff passes by without a word[1].

Dr. Wimmer, however, is fully aware that if the Futhorc is to be derived from the Latin alphabet the difficulty must be faced of accounting for the forms of the earlier runes. I will therefore deal with his arguments, rather than with those of Dr. Kirchhoff, and briefly examine the accordance of his methods and results with scientific principles and possibilities.

In tracing alphabetic developments certain general principles have to be borne in mind. The laws which govern the origin of letters resemble in many respects those which regulate the origin of species and the origin of words. In Palæography, as in Zoology, Botany, or Philology, no arbitrary or violent changes are to be expected. The variations of letters, like the variations of the sounds which they represent, are slow and gradual, and take place in accordance with phonetic laws, and in obedience to general principles:—the chief of which are

[1] *Das Gothische Runenalphabet*, pp. 4–8.

(1) The Principle of Least Effort, and (2) The Principle of Sufficient Reason. In the Latin, English, and Greek alphabets these principles are exemplified in the gradual and necessary developments of **G** out of **C**, of **J** out of **I**, and of **Ω**, **U**, **V**, **Y**, **W** out of **O**. We here see how on the Principle of Least Effort the old letters were retained, and how additional letters, when required, were gradually developed by means of slight differentiations of form. So again, on the Principle of Sufficient Reason it is manifest that the letter **B** gradually acquired its lower loop, and the letter **R** developed its tail, in order to prevent inconvenient confusions with the letter **P**.

These fundamental principles of alphabetic change are constantly neglected by Dr. Wimmer. His method assumes that the inventors of the runes arbitrarily discarded a certain number of the Latin letters, and then without any Sufficient Reason invented other letters to supply the vacant places. If his explanations are correct, several of the runes, instead of having been evolved, like the letters of all other alphabets, by the

action of slow and natural processes, must have been invented off hand by some alphabetic law-giver, who had the power to suspend the action of Grimm's Law, and whose arbitrary behests were promptly obeyed over a vast region extending from the Rhone to the Baltic, and from the Baltic to the Danube.

If we compare the Latin and the Runic letters, we see that in nine cases there is a sufficiently close correspondence in form and value. We have

Latin B C F H I M R S T

Runic ᛒ ᚲ ᚠ ᚺ ᛁ ᛗ ᚱ ᛋ ᛏ

b c f h i m r s t

But there are fifteen runes which cannot so easily be explained. We have

Latin A D E G L N O P U V X

Runic ᚨ ᛞ ᛖ ᚷ ᛚ ᚾ ᛟ ᛈ ᚢ ᚹ ᚦ ᛇ ᛝ

a d e g l n o p u v x th eo y ng

Dr. Wimmer's task is to explain from the Latin Alphabet the origin of these fifteen runes. The explanation which he gives is as follows.

The Latin A was dropped, without Sufficient

Reason, and the Etruscan ᚩ, which had been disused for centuries, took its place.

The letter D became ᚦ, and acquired the value *th*. It was then doubled, and one half of it was turned round, ᚦᚧ, in order to obtain the new rune ᛞ, with the value of *d*; both changes being contrary to phonetic law[1].

The letter E was turned upon its face, and for no Sufficient Reason usurped the form of the existing letter M, though there is no trace in any inscription of the hypothetical intermediate form ᛖ.

The letter G, without Sufficient Reason, was disused, and a new sign, X, was arbitrarily invented to supply its place.

The letter L, for no reason at all, was written upside down, and became ᛚ.

The letter N, for no Sufficient Reason, became ᚾ.

The letter O, for no Sufficient Reason, and contrary to the Principle of Least Effort, took the form ᛟ.

[1] In Gothic *th* should become *d*, instead of *d* becoming *th*. In Welsh *dd* becomes *th*, but in no known language could *th th* become *d*.

The letter ᚹ changed its form to ᚠ, and its value to *v*, contrary to the phonetic law that *p* becomes *f*. A new *p* was then invented by placing two ᛒ's *vis-à-vis*, ᛒᛒ, and this hypothetical rune, of which there is no trace in any inscription, forthwith lost five strokes, and became ᛈ.

The letter ᚢ, for no reason at all, was written upside down, and became ᚢ.

The character ᛪ having been invented to supply the place of the disused letter ᚷ, the Latin letter ᛪ consequently became unavailable to express the sound *x*. Hence the letter ᛉ, which is not a true Latin letter at all, but Etruscan and Greek, was taken over and transformed into ᛉ, with the values *x* and *i*, and also, as Dr. Wimmer contends, with the value of *r*[1].

This Greek or Etruscan ᛉ was so familiar to those who constructed the runes out of the Latin letters that it was made the parent, not only of ᛉ, but also of the rune ᛦ or ᛦ, with the values

[1] Dr. Wimmer assigns the value of *r* to the two runes ᛉ and ᚱ, even when they stand side by side in the same inscription.

i and *eo*, without Sufficient Reason, and contrary to phonetic law.

The remaining runes offer a still more crucial test of the adequacy of Dr. Wimmer's theory. Identifying the rune ᚲ (*k*) with the Latin C, he considers that the three runes ᚷ, ᛋ, and ᛝ, which denote respectively *g*, *y*, and *ng*, were formed by three different reduplications of the rune ᚲ. How the debilitated sounds *g* and *y* could be obtained by the reduplication (i. e. the strengthening) of the hard guttural *k* he does not explain. But if these runes had been thus constructed we should expect to find transitional forms in the earlier inscriptions. Now the rune ᚷ appears, firm and well defined, from the very first, while the earlier forms of ᛋ are first ᛊ, and then ᛑ, which certainly do not look like reduplications of ᚲ. The *ng* rune, however, was undoubtedly formed by reduplication—as we can trace it on the earlier monuments through many successive stages of the process of formation. We find such early forms as ᛜ, ᛜ, ᛉ, ᛋ, ᛊ, ᛑ, ᛊ, the last of which settled into the final form ᛝ about the sixth century A.D. Dr. Wimmer

is therefore plainly right in considering this as a double rune, derived from ᚲ. But it is equally plain that the *ng* sound must have arisen out of *gg* and not out of *kk*. In Greek γγ is equivalent to *ng*, and Ulphilas, as in the words *juggs*, young, and *huggrjan*, to hunger, employs the symbols ᚷᚷ (*gg*) to express the Teutonic sound *ng*, either following in this respect the familiar law of the Greek phonesis, or, more probably, retaining the usage which he found in the Gothic Futhorc on which he modelled his Alphabet. Not only must *ng* come from *gg*, but by Grimm's Law a Gothic *k* represents a primitive *g*. It follows therefore that the original value of the symbol ᚲ was *g* and not *k*, as thus, and thus only, can the origin of both of the two runes ᚲ (*k*), and ᛝ (*ng*), be explained.

Now in the Latin alphabet the power of the third symbol, C, had already been changed from *g* to *c*, and hence, independently of all geographical or chronological considerations, it is obvious that no modification of the conditions of the Latin Hypothesis is capable of accounting for the origin of the runes.

In the way of the Latin theory stand a whole host of insuperable difficulties—chronological, geographical, phonological, and morphological. Not only does it fail to account for the origin of fourteen out of the twenty-four primitive runes, but it leaves entirely unexplained the order which they occupy in the Futhorc. Why, it may be asked, should the Futhorc begin with *f* and end with *o*, instead of beginning with *a* and ending with *x* or *z*?

Dr. Wimmer's argument appears to me to be so destitute of any solid foundation that I should not have deemed it needful to examine it in such detail if it had not obtained the approval of so many scholars of high repute.

§ 5. The Greek Hypothesis.

From one passage only, in any ancient writer, do we obtain information as to the nature of the runes. Tacitus had heard a report of the existence, somewhere far away in the regions of the North[1], of certain inscriptions which were

[1] Tacitus, *Germania*, § 3. The vague references to the frontiers of Germany and Rhætia, and to the place called

written in Greek characters: monumenta et tumulos quosdam, Græcis literis inscriptos. The report seemed to him so strange that he declines either to vouch for its truth or to attempt an explanation; but he gives, for what it might be worth, the current conjecture. Some persons, he says, have supposed that Ulysses in his wanderings must have visited the northern coasts of Germany, and left behind him these inscriptions: quæ neque confirmare argumentis, neque refellere in animo est: ex ingenio suo quisque demat vel addat fidem.

Modern writers have scouted the account of Tacitus as an 'absurd story;' a more sagacious criticism may perhaps discover in it a hint which may supply the true explanation of the runic mystery.

Asciburgium, where Tacitus localizes these inscriptions, may perhaps be reconciled by the supposition that the Asciburgium of Tacitus is really the Ἀσκιβούργιον ὄρος of Ptolemy, which is undoubtedly the Riesengebirge on the frontier of Silesia. Tacitus may have transferred his Asciburgium to the lower Rhine in order to harmonize with the current Odyssean legend the reports which he had heard as to the Ascibergian inscriptions.

It is manifest that if the Phœnician and Latin solutions have both to be rejected, one other possibility alone remains — the runes must have been derived from the Greek letters, since the Greeks were the only other people in possession of an alphabet who could have anywise come into contact, commercial or colonial, with any of the Teutonic tribes at a period as early as the circumstances of the case require. If the Greek alphabet will not afford a solution of the problem, it must, apparently, be given up as finally insoluble.

It is at once obvious that the chief difficulties which stand in the way of a solution from the Latin Alphabet do not apply equally to the Greek.

If the runes were acquired by the Eastern Teutons from the Greek colonies on the Euxine the chronological difficulty disappears, as we should obtain several centuries for the needful developments. The geographical difficulty also assumes a less formidable shape, as in this case the South-Western Teutons would be the last, instead of the first, to acquire a knowledge of the runes. Nor does any difficulty arise from

the retrograde or boustrophedon direction of the primitive runic writing, as the early Greek inscriptions are written in the same manner. It has just been shown that Dr. Wimmer's theory breaks down conspicuously in the attempt to account for the origin of the runes ᛞ, ᛉ, ᚷ, ᛝ, ᚲ. We may therefore take these five runes, which have never yet been satisfactorily explained, as affording a sort of preliminary test of the adequacy of the Greek hypothesis. By Grimm's Law a Greek θ answers to a Gothic *d*. Hence ⊠ or ᛞ, which are the old runes for *d*, may be identified with ⊠ or ⊗, the ancient forms of θ. Grimm's Law also gives a Gothic *g* as the equivalent of a Greek χ. Hence ᚷ, the rune for *g*, is, as it ought to be, simply the Greek χ. But in the early Greek alphabet we find ᛉ as well as ᚷ as the symbol for *ch*. As one of these equivalent signs, ᚷ, acquired in Italy the value of *x*, so the other, ᛉ, might have acquired the value of *x* in Scandinavia. In the next place, by Grimm's Law, a Greek γ answers to a Gothic *k*. Hence from the Greek ᚴ or ᚵ we obtain in Scandinavia, as in Italy,

the symbol ᚲ for *c* (*k*). Also since *gg* expresses the sound of *ng* in Greek and in Ulphilas, the double rune ᚲᚷ or ᛝ for *ng* is at once explained. It will be noticed that all these correspondencies, instead of contravening phonetic laws, are in entire harmony with them, while the distinctive peculiarities of the runic system, which are inexplicable on the Latin hypothesis, receive a simple and natural explanation from the Greek alphabet.

The foregoing arguments, which can be stated in a single paragraph, seem sufficient to justify a more detailed investigation of a theory which, though it seems to be the obvious solution of the problem, and accords with the only statement of any ancient author on the subject, has not hitherto, so far as I am aware, undergone the test of a serious examination.

§ 6. The Chronological Conditions.

But before thus examining the Futhorc to see if by legitimate processes it can be derived, rune by rune, from the Greek alphabet, it is needful

to state, as briefly as may be, the geographical and chronological conditions of the problem, and to determine the forms which were assumed by the Greek letters at the time and at the place at which it would seem that the origin of the runes may most probably be sought.

First, as to the chronological possibilities.

We have already seen that there is reason to believe that the runes must have originated at a considerable period before the year 200 A.D. Now the amount of phonetic change which separates the Greek letters from the earliest runes occupied in the case of Keltic speech about eight centuries[1]. It seems then to be not unreasonable to postulate a somewhat similar period for the development of corresponding changes in the Gothic and Scandinavian languages. A somewhat more definite date is given by the significant peculiarity in the direction of the earliest runic writing, a circumstance which points to the conclusion that the runes must have been obtained from the Greeks at the very time when

[1] Rhys, *Lectures on Welsh Philology*, p. 45.

the Greek writing was in its transition state, and was passing from the retrograde direction in which it was received from the Phœnicians, through the intermediate boustrophedon stage, into the ultimate direction from left to right. This consideration would indicate the sixth century B.C. as an approximate date for the origin of the runes.

The palæographical tests agree in pointing to the same date.

The Greek alphabet from which the runes were derived must have been distinguished, as will be seen hereafter, by the following fourteen characteristics :—

1–3. The introduction of the new letters Χ, Υ, and Ω.

4. The use of Η to denote both the vowel and the aspirate.

5–9. The use of Ρ instead of Ϸ; of Μ instead of Ϻ; of ⊗ instead of ⊙; of ▷ instead of Δ; and of Λ and < instead of Γ.

10–12. The use of ᚴ in place of the earlier ᚳ or the later ᚲ; of ᛊ instead of the earlier

Μ or the later Σ; and of Η instead of the earlier Β or the later Ⱶ.

13, 14. The retention of the gutturals Ϙ and Ψ.

These fourteen runic tests are also the characteristic marks of the alphabet of Ionia and the Isles at the end of the sixth century B.C.

To obtain a superior limit of time we have the following dates:—

	Before the
Introduction of Χ	40th Olympiad.
Introduction of Ω	60th „
Introduction of Υ	47th „
Use of Β as a vowel . . .	40th „
Change of Β to Η	45th „
Introduction of the tailed R .	55th „
Change of ᛒ to ᚹ	40th „
Change of ᚠᚠ to Μ	55th „
Change of Μ to ᛊ	40th „

Hence it appears that the specially runic forms of the Greek alphabet were acquired between the 40th and 60th Olympiads.

For the inferior limit of time we have—

	After the
Disuse of tailed R	84th Olympiad.
Disuse of H for aspirate . .	85th „
Change of ⊗ to ⊙	80th „
Change of ᚴ to ᚬ	75th „
Change of ᛊ to ᛋ	75th „
Change of ᚦ to ᚧ	80th „
Final disuse of ᛩ and ᛘ . .	75th „

These approximate dates show that several characteristic runic forms disappeared between the 75th and 85th Olympiads.

It appears therefore that the Ionian and Island alphabet exhibits a remarkable approximation to runic forms between the 60th and the 75th Olympiads, that is, between the years 540 and 480 B.C. This date for the origin of the runes, which has been arrived at solely on palæographical grounds, is curiously confirmed by historical considerations.

In the sixth century B.C. the shores of Thrace and of the Black Sea were thickly studded with colonies from the Isles and the Ionian cities.

Just at the close of this century the rapid progress of the Persian arms must have effectually isolated all these northern colonies from their parent states, and thus have stereotyped for a considerable period the alphabet which they possessed. The Persian expedition to the Danube, the conquest of Thrace, the capture of Miletus, Teos, Lesbos, Samos, Naxos, Thasos, Chios, Lemnos, Tenedos, and Chalcis, are events which took place between the years 510 and 490. Thus in the year 500 B.C., at the very time when the runic characteristics of the Ionian and Island alphabet had attained their maximum development, the Ionian and Island colonies on the Euxine were temporarily, and in some cases permanently, cut off from intercourse with the parent cities. Such an isolation of colonial dependencies tends to perpetuate in them archaic peculiarities. The case of the Saxon colonists in Transylvania, of the French habitans in Canada, or of the Dutch boers at the Cape, are sufficient to shew that isolated colonists are likely to conserve for centuries the fashions of speech, dress, and writing which were prevalent in the parent countries

at the time when the severance took place. In default of any direct evidence it may therefore be regarded as probable that those special runic characteristics of the Greek alphabet, which in Greece itself were but transient, lasting little more than half a century, might in the Euxine colonies have been preserved for a much longer period, very possibly for a century or two after the Persian invasion.

§ 7. The Geographical Conditions.

We now come to deal with the geographical possibilities of the problem. We have to inquire whether any Teutonic people could have had such intercourse with any of the Greek colonies in the sixth or following centuries as to enable them to acquire a knowledge of what we may call the runic type of the Greek alphabet.

Now the Greek colonies on the shores of Thrace and of the Euxine were derived almost exclusively from Ionia and the Isles, where the runic peculiarities of the Greek alphabet are chiefly found. Samothrace was colonized from Samos, Chalcidice from Chalcis, Thasos from Paros, while Miletus

had numerous colonies on the Hellespont, in Thrace, in the Crimea, and at the mouths of the Don, the Dniester, and the Dnieper.

If the Thracian Getæ were of Gothic race the problem receives an immediate solution. The Getæ are found not only south of the Balkans in the valley of the Maritza, but they were spread over the Wallachian and Bessarabian plains from the Danube to the Dnieper. If the Getes were Goths we should thus have Goths and Greeks dwelling in absolute contact. Procopius and Jornandes, Jerome and Spartian, agree in identifying Getes and Goths. The identification is supported by the high authority of W. Grimm, whose argument, drawn from the Teutonic character of the Dacian plant-names in Dioscorides, has recently been re-stated with great ability by Mr. Douse. Canon Rawlinson goes so far as to affirm that "the identity of the Getæ with the Goths of later times is more than a plausible conjecture. It may be regarded as historically certain[1]." But, weighty as are the opinions of

[1] Rawlinson's *Herodotus*, vol. iii. pp. 69, 180.

these authorities, it must be admitted that the ethnic affinities of the Getæ are still so far matter of controversy as to be unfitted for the basis of an historical induction. The ethnology of the Gothini, who are placed by Tacitus in the extreme south-west of Germany, is still more uncertain.

But to the north-west of the Greek colonies of the Euxine, and within reach of the Greek traders, an universal consensus of ancient and modern writers places a people who were indubitably of Gothic race. Pytheas of Marseilles, a contemporary of Alexander, tells us that the amber country was in the territory of the Goths (Guttones) who lived on the Bantomannian[1] Bay, which must be identified either with the Frische Haff or the Gulf of Dantzig. Our next authority is Tacitus, whose information, not being derived like that of Pytheas from Baltic mariners, would

[1] I take this to be the probable reading of the well-known passage in Pliny. The Low-German word *bant*, a 'district,' appears in Bra-bant, and other names. Thus the name of the Banto-manni would not be a true ethnic term, but a misapprehension of Phœnician navigators, and would mean simply the 'people of the district,' the 'country-folk.'

apply to the south-western rather than to the northern frontier of the Goths. Tacitus places the Goths (Gothones) nearly in the same region, but somewhat farther to the south, east of the Lygii, who inhabited Silesia and the western part of modern Poland. The testimony of Ptolemy (about 150 A.D.) is in harmony with the statements both of Pytheas and of Tacitus. He puts the Goths (Γύθονες) east of the Vistula, and the Γοῦται (Jutes?) in the 'island of Scandia,' which we may identify with the Swedish province of Gothland[1].

It would seem therefore that the northward migration across the Baltic of a portion of the Goths must have taken place at some considerable period before the time of Ptolemy. But there is ample ground for believing that the residue of the Gothic nation which remained to the south of the Baltic was very numerous. To say nothing of the vast hosts which followed the standards of Athanaric, Alaric, and Theodoric, we are told that the Gothic army which defeated

[1] See Zeuss, *Die Deutschen*, pp. 134, 511–513.

the Emperor Decius in the year 250 numbered 70,000 warriors, while the host which nineteen years later was routed by Claudius amounted to no less than 320,000. However much the numbers may have been exaggerated, it is obvious that these great armies constituted only the vanguard of the Gothic array which kept rolling on from the North upon the South, till at last it spent its force in founding powerful Gothic kingdoms in Gaul, Italy, and Spain. It seems therefore to be a very moderate computation if we reckon the population of the original Gothic realm to the east of the Vistula at a million of souls. At the present time the population which this region is able to support is very sparse. In the governments of Minsk and Volhynia the present density is about forty to the square mile. But the Goths, when they occupied this district, were a thinly scattered pastoral people, and we are probably under the mark if we suppose the present agricultural population to be at least four times as dense. To support a million of Goths in their original seats with a density of ten to the square mile, a territory of 100,000

square miles would be required. It follows that the Gothic realm must have stretched southwards for some 400 or 500 miles from the Baltic coast. This inference, which agrees with the testimony of Pytheas, Tacitus, and Ptolemy, is supported by the recent discovery in Volhynia of a spear-head bearing an inscription written in Gothic runes of the early type. This spear-head was found near the town of Kovel, which stands on the Pripet, an affluent of the Dnieper, and is distant about 300 miles from the Baltic coast, and about 400 miles from the Black Sea.

Here then, on the upper waters of the Dnieper, in the Russian governments of Grodno, Minsk, and Volhynia, we may place the southern limit of the Gothic tribes before they commenced their great historical migration down the valley of the Dnieper to the Euxine and the Danube.

But a nation which held possession of the amber coast of the Baltic, and also extended so far southward as to occupy the upper basin of the Dnieper, would almost necessarily be in commercial intercourse with the enterprising Greek traders who had the command of the commerce

of this great river. From the earliest times the trade route between the Baltic and the Euxine was by the waterway of the Dnieper, which rises within 200 miles of the Baltic coast. It was by this route, the Austrvegr or Eastway, that the Varangian vikings from Swedish Gothland descended from the North and swarmed along the coasts of the Black Sea, and even laid siege to Constantinople. The Dnieper (Borysthenes) was known to the Greeks as early as the seventh century B.C., and the valuable trade of this great natural highway was in the possession of the Greek colonies which were established near its southern outlet. The importance of the Greek commerce of the Dnieper is evident from the statement of Herodotus, who had himself visited Olbia, the flourishing Greek colony established at its mouth. Herodotus speaks of the Borysthenes as being, next after the Nile, the greatest and most valuable river of the earth. He adds that it was known as far as the district of Gerrhos, forty days' journey from the sea. Now the distance in a straight line between the Black Sea and the Baltic is not more than

700 miles, and the northern half of this space lay, as we have seen, within the limits of the Gothic realm, the southern frontier of which would not be more than 400 miles from Olbia, or about the distance of Olbia from Byzantium. Now since the Greek merchants from Olbia ascended the river for a distance of forty days' journey, and if we reckon a day's journey at fifteen miles, and make sufficient allowance for the windings of the stream, this will bring Gerrhos into close proximity with the southern border of the Gothic occupancy, if not actually within it[1]. It may therefore be assumed that in the sixth and following centuries there was sufficient opportunity for the Goths on the Pripet to acquire a knowledge of the Greek alphabet from the Greek merchants who traded on the Dnieper for the amber, and other products of the Gothic realm.

[1] The name Gerrhos may be the Gothic *gards*, which in Ulphilas denotes a 'district,' as in *midjun-gards*, the world. In Norse the word denoted a stockaded trading-post. Kiev was called by the Northmen Kœnu-garthr (Ship-ton). If Kiev is the Gerrhos of Herodotus, then the river Pripet, on which Zeuss places the Goths, would be the 'river of Gerrhos.'

§ 8. The Thracian Alphabet.

The next step in our investigation is to ascertain the characteristics of the alphabet which was used by these Greek traders. The direct evidence as to the Olbian and Thracian alphabet is very meagre. The Greek inscription from the Nogai steppe is only a fragment, and the great Olbian inscription[1] is useless for our purpose, as it belongs to a very much later period. We have to rely mainly on the evidence of a few Thracian coins, notably a large gold coin of Geta, King of the Edoni, now in the British Museum, which is believed[2] to belong to the sixth century B.C., and several coins of the Orreskioi of about the same date. But there is no lack of inscriptions of the required date belonging to the cities and islands from which the Thracian and Euxine alphabet must have been derived. We have much early pottery from Thasos[3], together with

[1] Böckh, No. 2058.

[2] This coin was found in the bed of the Euphrates, and may have been brought from Thrace by a Persian soldier of Darius.

[3] Dumont, *Inscriptions Céramiques de Grèce.* Paris, 1872.

the celebrated inscription from Sigeum, several from Miletus, the mother city of Olbia, and many more[1] from Paros, Siphnos, Naxos, Melos, Samos, and Chalcis, all of them belonging to the end of the sixth century B.C. The evidence of the Thracian coins goes to show that the Thracian alphabet was identical with the alphabet of the mother cities of the Thracian colonies, which is usually designated as the second alphabet of Ionia and the Isles[2].

The following table has been carefully compiled from the original sources, to show the three successive types of the Greek alphabet. The first column contains the earliest Greek alphabet, usually called the CADMEAN ALPHABET, which is obtained mainly from the Inscriptions of Thera and Abousimbul. The second column, which for convenience may be designated the

[1] See Kirchhoff, *Studien zur Geschichte des Griechischen alphabets*, passim.

[2] This alphabet was probably introduced into Thrace by means of the Parian colony of Thasos, the Chalcidian colony of Chalcidice, and the Samian colony of Samothrace. See Kirchhoff, *op. cit.*, and Lenormant, art. *Alphabet* in Daremberg's *Dictionnaire*, p. 202.

THRACIAN ALPHABET, has been compiled from the legends on Thracian coins, on the pottery of Thasos, and from inscriptions of the mother cities of the Thracian colonies. It shows the forms which were in use during the half century which preceded the Persian invasion. The third column contains the later or Standard Greek Alphabet of the fifth and following centuries, which may be called the ATTIC ALPHABET.

It will be noticed that those special letter-forms which have already afforded us a chronological test (see p. 39) fulfil also the geographical conditions. The characteristic runic forms of the Greek letters which point to the end of the sixth century as the period of the origination of the runes, are also characteristic of the local Thracian alphabet. The most important of these test forms are—

On the page opposite to the Table of Greek Alphabets the Table of Runes, which has already been given on page 4, has been reproduced, for the purpose of facilitating convenient reference.

Table of Greek Alphabets.

	Cadmean. 7th century B.C.	Thracian. 6th century B.C.	Attic. 5th century B.C.
α	Α	Α	Α
β	Β	Β	Β
γ	ᐸ Λ	ᐸ Λ ᒥ	Γ
δ	Δ	▷ Δ	Δ
ε	⋿	⋿ F	Ε
F	⋎	F	Caret.
ζ	Ι	Ι	Ζ
η	Caret.	Η	Η
h	⊟	Η	⊢ ⌐
θ	⊕ ⊗	⊗	⊙
ι	�²	Ι	Ι
κ	Κ	⊬ Χ	Κ
λ	⋁	∧	Λ λ
μ	ᙢ	Μ	Μ
ν	ᘉ	ᘉ Ν Ν	Ν
ξ	⋿	⋿	⋿ Ξ
o	Ο	Ο Ω	Ο
π	ᒥ	⊓	⊓
q	Φ ᛘ	⍬ Ψ	Caret.
ρ	Ρ	Ρ Ꭱ Ꭱ	Ρ
σ	Μ ≷	≷ ≷	Σ ϲ
τ	Χ ᛉ	Τ	Τ
υ	Caret.	⋁ Υ Υ	⋁ Υ
ϕ	Caret.	⊕	Φ
χ	Ψ Ψ	Ψ Χ	Χ
ψ	Caret.	Caret.	Ψ
ω	Caret.	Ω Ο	Ω

Table of Runes.

Names.	Values.	Runes. I. Gothic.	II. Anglian.	III. Scandinavian.	IV. Alphabet of Ulphilas.	
fech, feh, fe	*f*	ᚠ ᚡ	ᚠ ᚡ	ᚡ	𐍆	*φ*
ur, hur	*u*	ᚢ ᚤ	ᚢ ᚤ	ᚢ	𐍅	*ου*
thorn	*th*	ᚦ ᚧ ᚦ	ᚦ	ᚦ	𐌸	*δ*
asc, æsc, os	*a, æ, o*	ᚨ ᚫ	ᚬ ᚭ	ᚭ	𐌰	*α*
rad, rat	*r*	ᚱ ᚱ	ᚱ	ᚱ ᛦ	𐍂	*ρ*
cen, kaun	*c, k*	ᚲ ᚳ	ᚴ	ᚴ	𐌺	*κ*
gebo, gifu	*g*	ᚷ	ᚷ		𐌲	*γ*
wen	*v, w*	ᚹ	ᚹ		𐍅 ᚹ ⊙	v,hv
hegl, hagal	*h*	ᚺᚽᚻᚼ	ᚻ	ᛋ	h	h
nyd, nod	*n*	ᚾ ᚿ	ᚾ	ᚾ ᚿ	𐌽	*ν*
is	*i*	ᛁ	ᛁ	ᛁ	𐌹	*ι*
ger, yr, ar	*y, ge, j, a*	ᛄ ᛎ ᛅ	ᛜ	ᛦ ᛅ	𐌾	j
hic, ih, eoh	*ih, i, eo*	ᛇ ᛡ	ᛡ		𐍇	*ζ*
peorth, perc	*p*	ᛈ	ᛕ ᛢ	ᛕ	𐌠	*π*
ilix, calc	*a, i, k, x*	ᛉ	ᛉ		𐌴 𐌀	q
sigil	*s*	ᛊ	ᛋ	ᛋ	𐌢	*σ*
tir	*t*	ᛏ	ᛏ	ᛏ ᛚ	𐌿	*τ*
berc, berith	*b*	ᛒ	ᛒ	ᛒ	𐌱	*β*
hæc, ech, eh	*e*	ᛖ ᛗ	ᛗ		𐌵	*η*
man	*m*	ᛗ	ᛗ	ᛘ ᛦ	𐌼	*μ*
lagu	*l*	ᛚ	ᛚ	ᛚ	𐌻	*λ*
ing	*ng*	ᛜ ᛝ	ᛝ		𐌧	*χ*
dag, dæg	*d*	ᛞ ᛞ	ᛞ		𐍈	*θ*
othil	*o, œ*	ᛟ ᛟ	ᛟ		𐍉	*ω*

§ 9. The Futhorc and the Alphabet.

To close the remaining links in the chain of the argument is now a comparatively easy task. We have only to examine how the runes of the earliest Gothic Futhorc, as given in the first column of the Table of the Runes, can be connected, one by one, with the letters of the Thracian Alphabet which are tabulated on page 54.

The six centuries which separate the Thracian Alphabet from the earliest extant runic inscriptions must necessarily have produced considerable variations in the forms and powers of the individual runes. These developments will however be in accordance with those general Principles of Alphabetic change which have been at work in the formation of all other alphabets, and which have already been formulated. We must expect to find the special phonetic developments of the Gothic and Scandinavian languages accompanied and connoted by corresponding changes in the powers and forms of the runes. The development of new runic forms would also occasionally

necessitate correlative changes in other runes, in order to obtain clearer distinction between forms which were approaching an inconveniently close resemblance.

It may be laid down as a general rule that letters which represent the most stable sounds are the least subject to variation. The letter M, for instance, which represents one of the most constant of all sounds, may be traced with great ease through all the alphabets of the world. Hence, in those cases in which the Low-German languages have retained unchanged the primitive Indo-European sounds, one of the most efficient causes of alphabetic variation can not operate, and the correspondence between the runes and the Greek letters will be the most close. It follows that the affiliation of the runic liquids and sibilants ought to be easy to trace. It will therefore be convenient to begin with these letters.

§ 10. Liquids and Sibilants.

L. The *lambda* of the Thracian alphabet has the characteristic form ᚴ, which is clearly dis-

tinguished on the one hand from the form ᒪ which grew up on Italian soil[1] and is the source of our own L, and on the other hand from the forms ᐱ and ᐳ which characterise the standard alphabet of Hellas. The *l* rune is most constant and uniform in its form, both in the inscriptions and in the Futhorcs, retaining unchanged from first to last the precise shape of the Thracian ᒥ.

ᚱ. The strongest argument in favour of a Latin origin for the runes, and a chief reason, probably, why the Greek hypothesis has not hitherto found an advocate, is the western or tailed form of the *r* rune, which is either ᚲ or ᚱ. But in the Thracian alphabet, during the half century before the Persian invasion, the tailed *r* appears precisely in the two forms, closed and open, which we find in the runic inscriptions. The tailed *r* is found on the coins of the Thracian Orreskioi, and also in the parent alphabets of Paros, Thasos, Melos, and Chalcis. In this, as in some other cases, the delusive

[1] See Kirchhoff, *Gr. Alph.* p. 140.

resemblance between the runes and the Latin letters must be attributed to the fact that both the Italian and Thracian alphabets descended from the Alphabet of the Isles, while the standard Greek alphabet represents the Eolo-Dorian alphabet of the mainland of Hellas.

ᛗ. It was only when the Cadmean symbol ᛗ had ceased to be employed to denote *s* that ᛖ, the early form of *mu*, could develope into ᛗ, which is the character used for *m* in the Thracian alphabet. The *m* rune is ᛘ. The change of form can be easily explained. The *e* rune, as will presently be shown, gradually changed its form from ᚺ to ᛗ. This change necessitated, to avoid confusion, a correlated differentiation in the form of the *m*, which was effected, on the Principle of Least Effort, by a slight downward prolongation of the two cross strokes, ᛗ becoming ᛘ.

ᚾ. The Thracian *nu* appears in the forms ᚿ, ᚾ, and ᚾ. The derived rune was ᚾ, with the variants ᚾ and ᚾ. Here, as in the case of the *m* rune, we have an instance of correlated change. The third stroke of the Thracian letter

must have been discarded in order to distinguish the *n* from the *h*, which had assumed the forms ᚺ and ᚾ. But the former existence of the third stroke in the primitive rune is curiously attested by the juxtaposition of the *h* and *n* runes in the Futhorc. This singular change in the primitive order of the letters seems to have been effected, as in some other similar cases, for the sake of easy comparison of two runes which must at one time have been nearly identical in form. When at last this inconvenient resemblance had caused the differentiation of the *n* rune into ᚾ, and of the *h* rune into ᚺ, the reason for the juxtaposition of the two runes was removed, but the result remained to attest, as it were, the similarity of the primitive forms.

ᛋ. In the Teutonic languages the sibilant, like the liquids, retained the power which it possessed in the holethnic speech, and we consequently find that the forms of this letter are identical in the Thracian and Runic alphabets. In both of them the normal shape is ᛊ, with ᛋ as a variant.

Thus it appears that in the case of five

letters, where no changes arising from phonetic causes were to be expected, no such changes have taken place. The runes ᚨ, ᚱ, ᛊ, are absolutely unchanged, while the variations in ᛗ and ᚾ can be accounted for as cases of change due to correlation.

§ 11. The Vowels.

We now come to the vowels. In the later Futhorcs we find that a most elaborate and complicated vowel system has been developed, but in the earlier inscriptions the vowels are tolerably simple and constant.

The vowel runes of the Gothic Futhorc are eight, ᚨ, ᛁ, ᛟ, ᚤ, ᛖ, ᚢ, ᚣ, ᚪ. Of these the last two were developed out of the Greek gutturals ᚣ, *ch*, and ᚪ, *g*, and will be treated of when we come to consider the gutturals. The other six may be regarded as descendants of the Greek vowels ᚨ, ᛁ, ᚩ, ᚤ, ᚺ.

The Greek *alpha* disappeared from the Futhorc at a very early period, being superseded first by ᚨ, a development of *epsilon*, which by normal debilitation acquired the successive values *a*, *æ*,

and *o*, and afterwards by ᚴ, a development of *gamma*. The descent of the rune ᚱ from the Thracian 𐌓 is conclusively established by the three inscriptions on the Nordenhoff broach (p. 9). In two of these inscriptions, which are probably the earliest in date, we have 𐌓, with the third bar retained, as in the Thracian alphabet. In the third inscription we find ᚱ, which is the normal runic form.

The disuse of the third bar affords a curious argument in favour of the opinion that the *f* rune ᚠ was not, like the Latin F, a descendant of the digamma, *F*. In that case the third bar of the E would, as in Latin, have been retained in order to distinguish the two letters. But when, at a later period, the new *f* rune was developed, a distinction was needed, and the E being unable to regain its third bar, which had been lost and forgotten, a simple differentiation was obtained by varying the inclination of the bars, the two runes ᚱ and ᚠ being as easy to distinguish as the Latin letters E and F.

The rune I retains the form and value of the Thracian *iota*. The Greeks having reduced this

letter to the last stage of simplicity, there was no room for modification.

A very obvious identification is that of the rune ᛟ with the Greek Ω, which in Thrace usually denoted not the long *o*, but a shorter and more open sound. In the early inscriptions the rune ᛟ has the power of *o*, and afterwards that of *œ*. Ultimately this rune fell entirely into disuse, being replaced by a development of *epsilon*.

The twelfth rune in the Futhorc occurs so seldom in the early inscriptions, and varies so greatly that it is by no means easy to discover its parentage. The chief forms in the Gothic Futhorc are ᛘ, ᛋ, ᚻ, ᛩ, ᚷ, with the value of *y*; in the Anglian Futhorc we have ᛡ, ᛜ, ᛝ, ᛞ, with the values *g*, *gg*, *gæ*, and *y*; in the Scandinavian Futhorc the runes are ᛦ, *y*, and ᛅ, *a*; while in the Mœso-Gothic alphabet we have ᚷ, *j*, or *y*. The two Scandinavian runes seem to be descendants of the Greek *gamma*, as will hereafter be explained, but it does not seem to be so easy to refer the Gothic forms to the same parentage. The most primitive of all the forms

of this rune is ᛃ, which is found on the Berga stone, and also on a very early golden bracteate, in both cases with the power of *y*[1]. These two inscriptions are written from right to left, which is a sign of great antiquity. On the Istaby stone[2], which is probably later by a century or two, we find the derived form ᛋ, also with the value of *y*. The source of this ᛃ rune is probably the Thracian Y, which in the Sigean inscription is written ⋎. The closed form ᛍ, which is found on the Vadstena bracteate, is also very ancient, and may be regarded as the parent of the other closed forms, which are of considerably later date. It is probable that the Thracian Y was developed from O through V. The rune ᛍ may be regarded either as derived from a Greek form intermediate between O and V, or as a development from O, or it may have been obtained from V by the curvature and slight prolongation of the two strokes. An argument, of no very great weight perhaps, in favour of the last view is derived from the Alphabet of

[1] Stephens, *Runic Monuments*, pp. 176, 545.

[2] Ibid. p. 173.

Ulphilas, in which the symbol for *v* has the two equivalent forms ᚠ and ᚡ, one open and the other closed, which correspond to the open and closed forms of the *y* rune. This looks as if in the Futhorc from which Ulphilas compiled his alphabet the forms ᛘ and ᛍ were descendants of equivalent value from the Greek equivalents Y and V.

The Greek H was the common parent of the seemingly unrelated runes M, N, and ᚢ. The Thracian H, as we have seen, had the double power of *η* and *h*. It may be regarded as a palæographic axiom that a character which bears two values is essentially unstable in form. Just as the double values of I and C involved the evolution of the new letters J and G, so the Greek H was differentiated in form in order to avoid the confusion which was caused by the vowel and the aspirate being represented by the same symbol. This differentiation was effected in different modes by different nations. In Italy the character H was retained to denote the aspirate, while in Greece the vowel continued to be expressed by the unaltered symbol H, out of which,

by successive curtailments, the signs ᚼ, ᚴ, ᚲ, and ᛔ were developed to denote the aspirate. Among the Goths the two powers of the Thracian ᚺ came to be distinguished by the simple and obvious device of changing the position of the cross stroke. To denote the vowel the cross stroke was moved upwards, retaining its horizontality, while to express the aspirate the cross stroke was written in a more or less oblique direction. In the very earliest runic inscriptions these changes can be observed in progress. Thus on the Thorsbjerg scabbard, the Dalby diadem, or the Krogstad stone, the *e* rune has the form ᛖ. But in this shape it was liable to confusion with the rune ᚿ, which denoted *u*, and hence we find in inscriptions of a somewhat later date that the cross stroke begins to be drawn with a very slight downward curve or bend, and we get ᛗ for *e*, as on the knife handle from the Kragehul Moss, and the plane from the Vi Moss. From this form the transition is easy to the final shape ᛘ. The adoption of this form involved the correlated change of the *m* rune from ᛘ to ᛙ, as has been already noted.

The *h* rune preserved the greatest resemblance to the form of the parent letter, affording another instance of the way in which the alphabets derived from the Thracian and Italian colonies agree in their divergence from the standard Greek forms. On the Buzeo torque the Thracian H stands unaltered, and denotes *h*. Other very early forms are H or H, and N or И. About the fifth century we get ᚺ, and finally the old *h* rune derived from *eta* was altogether dropped, and a new *h* rune, ✳, was developed by the debilitation of a primitive guttural, either Y or X, into a simple aspirate. The change of the *h* rune from H to N brought about, as has already been noted, the correlated change of the *n* rune from N to ᚾ.

The thirteenth rune in the Futhorc is written indifferently ᚢ and ᚤ. It will be observed that these two forms can easily be obtained from N and И, the early forms of the *h* rune, by shortening the two upright strokes, and then bringing the cross bar into a more nearly vertical position. In the oldest of the MS. Futhorcs (Isidore Codex, Brussels), the value of this rune

is stated to be *ih*, that is, an aspirated *i*, just as ᛗ was at first *eh*, an aspirated *e*. In the famous Vienna Codex (Salisb. No. 140), which stands second in antiquity and authority, the rune ᛇ bears the name *ih*, and is said to have the power of *h* as well as of *i*, that is, it was used indifferently, like its parent the old Greek H, both as a vowel and as an aspirate. In later MSS. the rune has assigned to it the values *i*, *h*, and *eo*, and the form melts into ᛁ and ᛁ.

A confirmation of the common parentage of these runes is obtained from the consideration of their names. It may be laid down as a general principle, which will hereafter receive abundant illustration, that the relationship of related runes will usually be indicated by the relationship of their names, as well as of their forms. Obviously, when two runes have proceeded from a common parent rune, the development of the names will usually have proceeded *pari passu* with the development of the forms and powers. Thus in the case of the three late Anglian runes ᚹ, ᚻ, ᚽ, which bear respectively the powers of

æ, *a*, and *o*, the relationship between the three names *æsc*, *as*, and *os*, is as plain as the connection of the forms.

This general principle may be applied to the three runes ᛗ, ᚺ, ᚻ. In the earliest of the MS. Futhorcs the runes ᛗ and ᚻ bear the closely related names *hæc* and *hic*; in later MSS. we get *eeh* and *eoh*; the most usual names being *eh* and *ih*. The common parentage of these names is even more obvious than the common parentage of the forms, and the oldest of the names clearly indicate that the parent rune had the power of an aspirated vowel, probably *he*. The name of the *h* rune has in some way acquired a final *l*[1], and is variously written *hegl*, *hægl*, *hagal*, *hegil*, but we have also the names *heih* and *he*, which connect the name of the *h* rune with the two vowel names *eh* and *ih*.

We thus arrive at the result that of the twenty-four primitive runes, twelve, namely,

ᚠ, ᚱ, ᛗ, ᛏ, ᛊ, ᚦ, ᛁ, ᛟ, ᚤ, ᚺ, ᛗ, ᚻ,

[1] Probably the accidental resemblance in the form of the runes ᚺ, *h*, and ᛋ, *s*, may have caused an assimilation of their names, *hegil* and *segil*.

are descended with comparatively little change from the ten Thracian letters

ᚴ, ᚱ, ᛘ, ᚿ, ᛊ, ᛒ, ᛁ, ᚩ, ᚣ, ᚺ.

§ 12. The Mutes.

The easier half of our task is now completed. It still remains to deal with the characters which represent the mutes, sounds which are specially subject to phonetic change, and which, in the Teutonic languages, have undergone those systematic modifications which are formulated under the designation of Grimm's Law.

Following the familiar nomenclature, which, if not strictly scientific, is more convenient than any other, we may divide the mutes into the three families of dentals, labials, and gutturals, and into the three classes of Hard, Soft, and Aspirate. Following this division we have—

	Hard.	Aspirate.	Soft.
Dentals . . .	*t*	*θ*	*d*
Labials . . .	*p*	*f*	*b*
Gutturals . .	*k*	*χ*	*g*

In the Teutonic languages, as a rule, dentals only interchange with dentals, labials with labials, and gutturals with gutturals. It will therefore be convenient to discuss separately each of the families of mutes, beginning with the dentals, as they offer less difficulty than the other families.

§ 13. The Dentals.

The dentals of the Thracian Alphabet were T, D, and ⊗. In the earliest Runic inscriptions the dentals appear in the forms ᛏ, ᚦ, and ᛞ[1]. The resemblance of form between the three Greek and the three Runic dentals is so striking, that it is difficult to doubt the descent of the one set from the other. But we are confronted with the difficulty that the runic characters have not retained the powers which they possessed in the Greek alphabet, while the changes which they have undergone are not in accordance with the changes prescribed by Grimm's Law.

[1] This very primitive form occurs on the Fröhaug bronze, which I take to be the oldest runic monument in existence. The usual early form of this rune is ᛞ, and the later form is ᛞ.

The problem may be stated as follows. The three Greek dentals, Τ, Θ, Δ, must have come into the possession of the Goths several centuries before the Christian era. We lose sight of them for six centuries, when they emerge from the darkness with altered values, but with forms so little changed that there can be no doubt as to their identity. The values are now *t*, *d*, *th*, instead of *t*, *th*, *d* as in the Greek alphabet, or *th*, *d*, *t* as required by Grimm's Law.

Here we have a fact of great interest and importance, which cannot fail to throw considerable light on recent controversies as to the date and nature of the changes which go by the name of Grimm's Law. In the first place our result is, I think, quite fatal to Grimm's own belief that the Gothic *Lautverschiebung* did not commence before the middle of the first century A.D., and that it was fully completed before the time of Ulphilas. In the next place our result is difficult to reconcile with the prevalent conception as to the way in which the *Lautverschiebung* took place, the so-called Chronological Hypothesis. On the Chronological Hypothesis it

would, I suppose, be necessary, in order to account for the facts, to assume with Mr. Sweet[1] that T, the strongest of the dentals, was the first to be attacked by debilitation, and that it bore in succession the values *t*, *th*, *d*, *t*; that ▷ changed from *d* through *t* to *th*, while ⊗ changed simply from *th* to *d*.

Obviously inadmissible is the supposition that ▷, the easiest of the dentals, was the first to be attacked by debilitation, that it changed through *t*, the most difficult sound, to *th*; while ⊗ changed from *th* to *d*, and T retained its power throughout.

The most simple explanation is to suppose with G. Curtius that debilitation commenced with ⊗, the *most unstable* of the dentals. In accordance with phonetic law the debilitation must have been from *th* to *d*. Then, by the Principle of Cross Compensation[2], ▷ took the value of *th*, while T, a very stable sound, remained unchanged.

[1] Mr. Sweet lays it down as 'an important phonetic law' that 'general weakening tendencies attack the strongest articulations first.'

[2] See Douse, *Grimm's Law*, p. 38.

This explanation, which seems to be simple, rational, and adequate, though difficult to reconcile with the Chronological Hypothesis, is, I think, consistent with Mr. Douse's ingenious theory as to the nature of the *Lautverschiebung.*

§ 14. The Labials.

We now come to the labials, *b*, *p*, *f*. It might naturally be supposed that the three runic labials, ᛒ, ᛈ, ᚠ, were derived directly from the three Greek labials, Β, Π, F. Further consideration does not tend to commend this supposition. In the first place it can hardly be affirmed that the Thracian alphabet possessed an *f*, or the Gothic language a *p*. The digamma, which was the source of the Latin F, had the power of *v* rather than of *f*, and it is more than doubtful whether it passed at all into the Thracian alphabet. The new letter Φ, which replaced it, was only struggling into existence, and had the power of *ph* rather than of *f*. On the other hand *p* can scarcely be claimed as a true Low German sound. In Fick's *Wortschatz der germanischen Sprachein-*

heit six words only, all of which are probably loan words, begin with *p*, and in Cædmon and Beowulf, taken together, there are only three such words. Ulphilas uses the Greek letter Π for the transliteration of such foreign words as Pontius Pilate, Paul, presbyter, and prophet, but his adoption of the Greek letter is an indication that in his time the *p* rune was either unknown or unfamiliar to the Goths. The *p* rune does not occur in any early runic inscription — it retained its place in the Futhorcs, but, practically, it seems to have been disused.

Hence it would appear that *b* was the only labial which was familiar both to Thracians and Goths at the time when the runes originated.

The epigraphic evidence points also to the conclusion that the *p* and *f* runes were not independently derived from the Greek alphabet, but were gradually developed out of ᛒ.

The forms as well as the names of the runic labials are suspiciously similar, unstable, and interchangeable. In the case of the dentals the three forms ᛏ, ᚦ, ᛞ, are singularly distinct and constant, and their names, TIR, THORN, and DAG

are manifestly unrelated words. But with the labials both the names and the forms seem to diverge from a single primitive source, as in the case of the groups of runes derived from **E** and **H** (pp. 68, 69).

First, as to the names of these three runes. The final forms into which the names crystalized, *berc*, *peorth*, and *fe*, are sufficiently diverse, but a comparison of the numerous MS. Futhorcs shews no such clear distinction. The typical variations in the names are as follows:—

b rune: *bearic*, *beorc*, *berc*, *berch*, *brita*, *berith*, *bira*.

p rune: *perc*, *perch*, *peorth*, *perd*, *pear*, *peoih*.

f rune: *fech*, *fehc*, *fer*, *feoh*, *feh*, *feu*, *fe*.

These names may be easily accounted for as successive debilitations of three primitive names, BERIC, PERIC, and FERIC, and of these we may consider BERIC as the ultimate source from which all the names have been derived.

The forms of the three runic labials, no less than their names, indicate a development out of a single primitive rune. The following forms are selected out of a much larger number as representatives of the principal types.

b rune: ᛒ ᛒ ᛒ ᛒ ᛓ ᛕ ᚦ ᚼ ᛅ

p rune: ᛒ ᛒ ᛒ ᚴ ᚺ ᚿ ᚴ ᚴ ᚳ ᚿ

f rune: ᚠ ᚡ ᚠ ᚠ ᚦ ᚦ ᚠ ᚠ ᚠ

All these forms can be explained as developments out of a primitive form ᛒ or ᛒ. Some of them are especially significant. Thus ᛓ is a *b* which has reached the half-way stage of development into an *f*, while ᚡ is an *f* which has only partially divested itself of the characteristics of *b*.

Forms of the *f* type such as ᚠ, ᚦ, ᛅ, or ᚴ, are sometimes used for *b*, both in early and late monuments, as the heathen Forsa ring, the heathen Rok stone, the Largs broach, and the runic stones in the Isle of Man.

The development of the labials was hardly completed in the time of Ulphilas. This is indicated by his adoption of the Greek Π for *p*, as well as by his use of ᛓ for *b*, and of ᚧ for *f*. His half-opened *b* is arrested in the first stage of the development into *f*, and the curved hooks of his *f* are survivals, as it were, of the complete loops of the ᛒ.

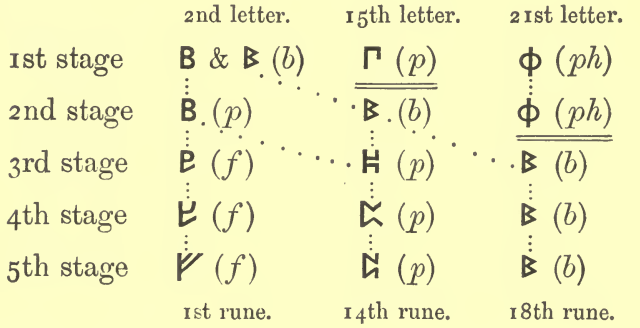
It is not difficult to perceive the process by

which the *p* and *f* runes were developed. The parent rune ᛒ has a vertical stroke and four oblique bars. The transitional forms ᚴ, ᚺ show that the *p* rune, ᚿ, has retained the vertical stroke, together with the second and third of the oblique bars, while the transitional forms ᚹ and ᚼ show that the *f* rune, ᚠ or ᚡ, has retained the vertical stroke of the ᛒ, together with the second and fourth of the oblique bars.

It will be observed that the runes for *f*, *p*, and *b* occupy in the Futhorc the approximate places of the Greek letters *β*, *π*, and *φ*. That the new rune ᚡ with its new power *f* should have taken the place of the Greek ᛒ, proves that the development of the new symbol accompanied and connoted the development of the new sound; in other words, the phonetic change was the efficient cause of the new alphabetic development. There are other illustrations of this important principle. In the earliest Futhorcs the third and fourth runes, ᚦ and ᚨ, retain the relative positions of their Greek prototypes, ᚦ and ᛖ. But in the later Futhorcs we find a new development, ᛟ, with the new value *o*,

occupying the fourth station, while the old rune ᚨ, with its old value, *a* or *æ*, is relegated to the end of the Futhorc as No. 26.

The probable stages by which the development and rearrangement of the labials was effected may be tabulated as follows :—



§ 15. The Gutturals.

All the primitive runes have now been traced to their Thracian prototypes with the exception of six, ᚫ, ᚲ, ᚷ, ᚹ, ᚻ, ᛝ. These represent the gutturals and their developments. The tendency of gutturals to weaken into breaths and vowels is illustrated by the development of the Greek breaths and vowels out of the Semitic gutturals, and is exhibited in Teutonic languages by the

Gothic words *galeiks, ganohs, gavaknan, bagms,* which are represented in English by *alike, enough, awake, beam;* or by the descent of the words *eye, ye, yea, yoke, among, along,* from the Anglo-Saxon *eage, ge, gea, geoc, gemang, gelang.*

We may therefore regard as an instance of normal debilitation the descent from the Greek *gamma* of the rune ᚴ, which had the power of *u* and afterwards of *y*. In the earlier runic inscriptions, such as those on the Buzeo torque and the Thorsbjerg clasp, this *u* rune appears in the form ᚢ, which is precisely the shape of the Thracian *g*. The identification of the Runic and Thracian symbol ᚢ is confirmed by the position of the rune in the Futhorc. It retains the exact place of *gamma* between ᚠ and ᚦ, which represent respectively *beta* and *delta*. As was the case with the *f* and *b* runes, the symbol of the new sound retains the old station, the runic guttural ᚲ, which also descended from *gamma*, being moved to another place in the Futhorc.

The rune ᚷ has already been explained[1]. In

[1] See p. 36, *supra*.

the Greek alphabet this symbol had the power of *ch*, and in the Gothic Futhorc of *g*. The change involves no difficulty, as by phonetic law a Greek χ regularly corresponds to a Gothic *g*.

This debilitation, by the Principle of Cross Compensation, would involve the hardening of the *g* into *k* or *kh*, a change which is usually expressed by the statement that by Grimm's Law a Gothic *c* (*k*) is the regular equivalent of a Greek γ. Now the Thracian *gamma* was written in the two forms ᚬ and ᚲ. We have just seen that the first of these forms, by the regular process of debilitation, gives us ᚢ, the early form of the *u* rune, while ᚲ, the other form of the Greek *gamma*, gave birth to the Latin C, and also became ᚲ, which is the regular *c* rune in the earliest inscriptions. In the fourth and fifth centuries the two early forms, ᚢ, *u*, and ᚲ, *c*, began to fall into disuse, and we can trace their gradual replacement by ᚺ and ᚾ for *u*, and by ᚺ, ᛦ, ᚼ, ᚴ, for *c*, forms which are obviously akin to the normal or ᚢ form of the Thracian *gamma*.

It has already been suggested that the puzzling

twelfth rune ᛃ, *y*, may be descended from the Greek Υ. It is however quite possible that this rune may also be a descendant of *gamma*. This supposition is made more probable by the name *ger*, which seems to be akin to *ur*, the name of the *u* rune, and also by the fact that the later Scandinavian runes for *y* and *a*, namely ᛦ, *yr*, and ᛅ, *ar*, clearly belong to the *gamma* family of runes, being descended from the ᚴ form of the *c* rune.

Respecting the development of the *ng* rune, ᛝ, nothing need be added to what has been said already. The numerous early variants, such as ᛜ, ᛜ, ᛝ, ᛝ, ᛝ, ᛝ, ᛝ, ᛝ, and other similar forms given by Professor Stephens[1], can leave no doubt that the rune ᛝ was developed by a reduplication of the ᚲ rune, a development which supplies an argument which is as cogent in favour of the Greek origin of the runes as it is difficult to reconcile with the Latin or any other hypothesis.

The eighth and the fifteenth runes, ᚦ and ᛉ,

[1] *Runic Monuments*, p. 149.

are less easy to deal with. They are probably to be referred to the Greek letters Φ and Ψ, two differentiated forms of the Semitic letter ק (*koph*). These two gutturals established themselves in the Greek colonies of Italy and Thrace, but in the alphabet of Hellas they were ultimately supplanted by Κ and Χ, derivatives of the Semitic כ (*kaph*). In the standard Greek alphabet the letter Ϙ, Ϻ, or Ϥ survived only as the numeral *koppa*, Ϥ or ϥ. In Italy it appears as the labialized guttural Ϙ, and from the Thracian alphabet[1], through the medium of the Slavonic runes, it passed into the Russian alphabet as the letter Ч (*tsherv*). The other descendant of *koph*, which is written Ψ or Ѱ in the early Greek inscriptions, had the power of the aspirated guttural. This letter was replaced in the standard Greek alphabet by Χ, and the disused symbol Ψ was afterwards employed to

[1] The *koppa* was retained in the Alphabet of the Isles, and seems to have been introduced into Thrace from the Parian colony of Thasos and the Chacidian colony of Chalcidice. See Lenormant, art. *Alphabet*, in Daremberg's *Dictionnaire des Antiquités*, p. 202.

denote the double consonant *ps*. But Ψ, with the value *ch*, continued, like Ϙ, to be used both in Italy and Thrace. It is found in the Cære syllabarium and in the Bomarzo alphabet, and established itself in Upper Italy among the Umbrians and Etruscans[1]. From the Thracian alphabet the letter Ψ as a guttural passed into the Slavonic runes, and both its form and its power may be recognized in the Old Slavonic letter Ѱ, which is the parent of the modern Russian letter Щ (*shcha*).

The rune Ψ is frequent in the early Scandinavian inscriptions; it is very constant in its form, which is exactly that of the old Greek letter, but to a most perplexing extent it is variable or uncertain in its value. It cannot be doubted that in some inscriptions it has the

[1] Fabretti, *Osservazioni Paleografiche*, § 121. As in the case of the letters *r* and *h*, so with regard to the parentage of the gutturals it will be observed that the Italic and Runic alphabets exhibit common features as to which they both differ from the Greek. The conjecture has already been put forward that this may be due to the fact that both Italy and Thrace were colonized from the over-peopled Greek islands, the alphabet of which differed from the alphabet of the mainland which became the parent of the standard Greek alphabet.

power of a vowel. Professor Munch gives it the power of a neutral vowel, Finn Magnusen takes it as equivalent to *y*, while Professor Stephens maintains that it must be *a*. In the MS. Futhorcs it has assigned to it the values of *i*, *y*, *iu*, *c*, *k*, *x*, and it bears the corresponding names of *ilix*, *ilcs*, *iolx*, *eolhx*, *elux*, *calc*, *kalk*, and *halach*. These values and names make it manifest that the ᛉ rune must have originally descended from a guttural, which, like the other primitive gutturals, developed a vowel sound side by side with the guttural power which it retained. The rune also acquired the value of *x* in the same way that ᚷ, which supplanted ᛉ in the Greek alphabet as the aspirated guttural, came to denote *x* in the Latin alphabet.

A further indication of the descent of this rune from *koph* through *koppa* is the noteworthy fact that ᛉ retains in the Futhorc the original station of *koph*, following next after *p* and preceding *s* and *t*.

The other Greek derivatives of the Semitic *koph* were ᛩ and ᛩ. To these forms I venture,

not without considerable hesitation, to refer the two runes, ᚹ and ᚠ. The early rune ᚹ or ᚹ bears the names *wen, ven, uyn,* and *huun,* and has the power of *v, w,* and *uu.* About the seventh century A.D. the *c* rune ᚲ or ᚴ was supplanted in Scandinavia by the rune ᚴ or ᚴ, which was called by the names *cen, ken, chen, chon,* and *qhon,* and had the power of *c, k,* and *q.* The names and powers of these two runes ᚹ and ᚠ, *wen* and *cen,* seem to point to a common descent from a labialized guttural *qven,* with the power of *kv.* That a primitive *kv* might yield either a semi-vowel or a pure guttural is shown by the related pairs of words—venire and come, garden and yard, guardian and warden, kin and wean, curb and warp, κότερος, uter and whether, gable and web, cheese and yeast, question and whisper.

The evidence of the Mœso-Gothic alphabet is, on the whole, in favour of the origin of the two runes ᚹ and ᚠ from the Greek *koppa,* ϙ or ϟ. The three symbols Π (*p*) ᛩ, and ᚱ (*r*) are employed by Ulphilas as numerals, with the values 80, 90, and 100, thereby showing that the second of these symbols ᛩ is the represen-

tative of the Greek *koppa* and the Latin Q. Although the power of this symbol ᑫ is not alphabetic, but solely numerical, we have also the slightly differentiated form ᑫ, with the alphabetic power of *q* (*kv*)[1]. The Mœso-Gothic alphabet has also the symbol ⊙ bearing the power of *hv*, which can best be explained as a descendant of the Greek ϙ, ϕ, or ⚲ (*koppa*). We may therefore consider the Mœso-Gothic letters ᑫ, *kv*, and ⊙, *hv*, as the representatives of the runes ᚠ and ᚹ.

Our investigation into the origin of the twenty-four runes of the primitive Gothic Futhorc is now complete. It must be frankly acknowledged that the affiliation of the eighth and twelfth runes, ᚹ and ᛉ, is open to considerable doubt, but

[1] It may be a question whether the Mœso-Gothic letter ᚢ or ᚡ (*v*) may not be descended from ⚲ (*koppa*) instead of from ᚤ as has been previously suggested (p. 65). The name *uuine*, which it bears in the Vienna Codex, certainly suggests a connection with the *wen* and *cen* runes. It is also a question whether the Mœso-Gothic ᛃ (*j*) which sometimes transliterates the Greek *iota* (2 Tim. iii. 8) may not be derived from ⚲ (*koppa*). But its name *jer*, and the balance of the evidence, is, I think, in favour of a connection with the twelfth rune ᛃ GER.

as to the remaining twenty-two runes I trust that the evidence which it has been possible to produce may be deemed reasonably conclusive, especially when it is remembered that the record of the monuments is not continuous; the inscriptions from which we derive the Thracian letters on the one hand, and the earliest runic forms on the other, being separated by five centuries of epigraphic silence. It is this chasm in the evidence which has hitherto guarded so effectually the secret of the runes.

§ 16. The Later Runes.

The foregoing investigation has been confined to the runes of the early Gothic Futhorc. A few words, however, must be said concerning the development of the later Futhorcs, in which nine-tenths of the extant runic monuments are written.

It was an object with Christian missionaries to substitute the Latin alphabet for the runic writing, which was regarded as a sign of heathendom. In spite, however, of this powerful in-

fluence it was long before the use of the runes was entirely suppressed. The use of the Visigothic runes in Spain was condemned by the Council of Toledo in 1115. In Denmark and in Iceland the runes were not formally superseded by the Latin alphabet till the fourteenth century. In Sweden the runes were officially replaced by the Latin letters in the eleventh century, but they continued in popular use for a considerable time. Thus at Haide (Sweden) there is a runic inscription which records the burning of the church in the year 1397[1], and in Lye Church (Sweden) there are two large runic sepulchral slabs which bear the date 1449[2].

In England the practical disuse of the runes took place at a much earlier time. They survived longest among the Northmen of Cumberland. The latest dated examples which I have been able to discover are a runic inscription in Carlisle Cathedral which dates from the year 1092; a

[1] Stephens, *Runic Monuments*, p. 711.

[2] *Ib.*, p. 752.

twelfth century runic font at Bridekirk in Cumberland; and a rock[1] engraved with runes at Barnspike in Cumberland, which records the treacherous slaughter of Gillhes Bueth, owner of the lands of Lanercost, by a Norman knight, Robert de Vaux, a deed which must have taken place between 1160 and 1170 A.D. The runic stones of the Isle of Man are usually assigned to the eleventh century. The MS. Futhorcs, which are very numerous, commonly contain only the Anglian runes, and belong mostly to the ninth, tenth, and eleventh centuries, though one Futhorc seems to be as early as the eighth, and another as late as the fourteenth century.

The runes of these later Futhorcs and inscriptions naturally differ very considerably from those of the earliest period. In fact the differences between the Gothic runes of the third century, and either the Anglian or Scandinavian runes of the tenth, are at least as considerable as those which separate the earliest Gothic runes from the Greek alphabet.

[1] Stephens, *Runic Monuments*, p. 648.

The changes which took place in the Scandinavian and Anglian Futhorcs were in opposite directions. In Scandinavia, where the runes continued so long in practical use, the changes were in the direction of simplification. Of the twenty-four primitive Gothic runes, eight, namely, ᚷ, ᚦ, ᚹ, ᚼ, ᛗ, ᛝ, ᛞ, ᛟ, disappeared altogether from the Scandinavian Futhorc, while in other cases the old runes were replaced by new developments, or by more simple forms, such as ᚠ, ᚱ, ᚴ, ᚾ, ᛦ, ᛚ, ᛁ, which are well adapted for engraving on stone. Thus not more than nine or ten of the original Gothic runes continued practically to be employed.

In England, on the other hand, the Latin letters rapidly superseded the runes for all purposes of ordinary use, and the runes were regarded either as magical symbols, as cryptograms, or merely as subjects of curiosity. Hence the changes take the form of an arbitrary multiplication of symbols, of fantastic developments and inventions, or of blunders of ingenious or ignorant penmen. These developments were so extensive and so complicated that it would be

impossible, within any moderate limits, to discuss them adequately, or to attempt to trace their genesis. From the MS. Futhorcs of the ninth and following centuries I have, as a matter of curiosity, extracted and catalogued as many as eighty-four different varieties of Anglian gutturals and vowels which may ultimately be traced back to three only of the Greek letters, *gamma*, *koppa*, and *chi*.

In attempting to trace and classify these late runes considerable difficulty arises from the confusion between the descendants of different primitive types; forms belonging to one type having acquired features, names, or values, which appertain to some other type. Thus in one MS. Futhorc the *d* rune, ᛞ, has assigned to it the name *thorn* instead of *dæg*, evidently from a confusion as to the phonetic value; in another Futhorc it is called *man* instead of *dæg*, the confusion having in this case arisen from the close resemblance to the form of the *m* rune, ᛗ; in a third case, from a similar cause, the values of the two runes ᛝ and ᛜ are interchanged. Such instances could easily be multiplied by the score.

Not a few of these late forms are evidently mere arbitrary fancies or 'elegancies'; some, however, are of exceptional interest or importance, either because, as in the Anglian Futhorc, they throw light on the phonetic tendencies of the English language in its earlier stages, or because, as in the case of the Scandinavian runes, they were ultimately accepted as permanent modifications of the older Futhorc.

As examples of these later developments we may take some of the secondary runes which were derived from the *epsilon* and *gamma* symbols. It will be observed that here, well within the range of historic proof, we have illustrations of those principles of co-ordinate change of forms, names, and powers, which have been assumed as regulating the pre-historic development of two or more runes from a common parentage.

The chief developments of the *epsilon* runes may be tabulated as follows:—

Values.	Forms.	Names.	
e			Greek, 5th cent. B.C.
e		esc?	Nordenhoff, 4th cent. A.D.
æ a		æsc asc ac as	Anglian, 9th cent.
a aa		as asc	Anglian, 8th cent.
o oo		os oos	„ 10th cent.
o		os	Scandinavian, 9th cent.

The developments of *gamma* are as interesting as the developments of *epsilon*. We have—

Values.	Forms.	Names.	
u		ur?	Buzeo, 3rd cent.
u		ur	Anglian, 8th cent.
u		ur	„ „
u		ur?	„ „
oe		oer?	„ „
y		yr	„ 9th cent.
y		yr	„ „
y		yr	Scandinavian.
æ		ær?	„ 7th cent.
a		ar	„ 8th cent.
a		ar?	„ 10th cent.
k		ker	Anglian.
r		yr?	Scandinavian.

Noteworthy, from the phonetic point of view, are the processes by which the Greek *gamma* gave birth to the form ᚴ with its threefold powers of *k*, *y*, and *r*. The Anglian *k* rune *ker* (?) may be traced through its successive stages ᚲ, ᚿ, ᚺ, ᚴ, ᚴ, ᚴ, and the Scandinavian *y* rune, *yr*, through the stages ᚤ, ᚤ, ᚴ, ᚴ. In the eighth century this *y* rune, ᚴ, began to be used to denote the *r* final. Thus on the Snoldelev Stone[1] (date about 750 A.D.) we find ᚱ and ᚴ employed side by side for the medial and final *r*, and this usage afterwards became general. The development of this *r* final out of *y* is interesting as an example of the well-known tendency of a final open vowel to acquire the trill. Thus from the Spanish *palavna* we get palaver, and from *el lagarto* we obtain, through Ben Jonson's *alligarta*, our modern alligator. Other instances are supplied by the vulgarisms—taters, feller, jigger, Jemimer, for potatoes, fellow, chigoe, Jemima; and even an academical training does not always suffice to

[1] Stephens, *Runic Monuments*, p. 345.

protect our ears on Sunday from 'Victorier our Queen.'

Perplexing as are the various powers of the rune ᛉ, which stands in the Anglian Futhorcs for *i, y, c, k, x,* a further element of confusion is introduced by the employment of the same symbol to denote *m* in the later Scandinavian and Manx inscriptions. By no legitimate phonetic process can *m* be derived from either a vowel or a guttural. Dr. Wimmer's characteristic allegation of an arbitrary transformation of the symbol ᛗ into ᛉ through the intermediate stages ᚹᛩ, ᛩᚹ, ᚠ, ᛉ, being obviously inadmissible, we must therefore seek some other origin for this rune. Now the tendency of *f* and *b* to become *m* by assimilation is well known. Thus the Latin *formica* corresponds to the Greek *μύρμηξ* and the Norse *maur*. We have also the related groups of words *βροτός, μορτός, mors* and *murder*; *ἄμβροτος* and *immortalis*; *μορμώ* and *formido*; *μόλυβδος, plumbum,* and *blei*. This interchange is more especially characteristic of the Keltic languages, and it is chiefly in the Isle of Man, and in Scandinavia at a time subsequent to the Irish and

Hebridean conquests of the Northmen, that we find the ᛘ rune standing for *m*. I would therefore venture to suggest, in default of any better explanation, that this rune, on which so much speculation has been expended, may have arisen through Keltic influence out of the old transitional rune ᚹ for *b* or *f*. At Maeshowe in Orkney we find the transitional form ᛦ for *m*. Other early forms of the ᛘ symbol for *m* are ᛩ, ᛯ, and ᛰ, which are easily connected with ᛒ or ᚹ. On the Holm stone again we have an *m* which is almost identical in form with the ordinary *f* rune.

The Anglian rune ᚻ, which first appears on the Charnay broach, grew out of, and supplanted the earlier *h* rune ᚺ. In Scandinavia, however, the new *h* rune was ᛯ, a development which cannot be derived from ᚺ. There are two ways in which this ᛯ rune may have arisen, either from ᚷ or from ᛘ. On the Skaag stone, which is assigned to the third century[1], we find ᚷ, *g*, and also ᛯ, which has the power of *gi* or *ge*,

[1] Stephens, *Runic Monuments*, p. 887.

and is apparently a bind-rune for ᚷᛁ. In later inscriptions ᛝ and ᛜ have the power sometimes of *g*, sometimes of *h*, and often of *æ* or *a*. These phonetic developments are regular, as we see from the A. S. *ge-mang*, which became *hi-mong* in Northern and *a-mong* in Southern English. So also A. S. *be-ge-ondan* became *bi-hi-onda* in the north of England and *be-y-ond* in the south. The evidence of the monuments thus seems to point to the evolution of ᛜ from ᚷᛁ, but the evidence of the Futhorcs is the other way. In the Futhorc on the Charnay broach the fifteenth rune is written ᛯ, instead of in the usual form ᛉ, and in some Anglian Futhorcs the rune ᛜ has assigned to it the power of *k* or *g*, and is called *gilc*, *gilch*, *chilch*, and *kalk*, names which indicate a descent from the *calc* or *ilix* rune ᛉ, by a downward prolongation of the two cross strokes.

The mysterious rune ᛞ, called *stan*, which has the power of *st* and *ss*, may here be noticed, not on account of its importance in the Futhorc, but as affording a very curious record of the operation of one of the laws of Gothic pho-

nology. In Gothic, *d* and *t* in juxtaposition become *st*, and *st* frequently becomes *ss*. Thus from the root *bud*, to bid, the 2nd pers. sing. præt. is *bau-s-t* for **bau-d-t*; also from the root *vit*, to know, through **vit-da* and **vista* we get *vissa*; and from *vad*, to bind, comes *gaviss*, through **gavisti*. Hence the late rune ᛋ, *st* or *ss*, is easily explained as a differentiation of the old rune ᛞ *d*.

§ 17. The Order of the Runes.

The Mediterranean alphabets have preserved, essentially, the primitive order of the Semitic letters. The deviation of the runes in the Futhorc from this ancient order has been the subject of many ingenious speculations, but has never, I believe, been satisfactorily accounted for.

It is obvious that the order of the runes in the Futhorc presents certain points of agreement with the order of the letters in the Greek alphabet. Thus the Futhorc ends with ᛟ, which is manifestly the descendant of the Greek Ω.

It has been shown in the foregoing pages that the first four runes in the Futhorc, ᚠ, ᚢ, ᚦ, ᚨ, are the direct descendants of Β, Γ, Δ, Ε, the second, third, fourth, and fifth letters of the Greek alphabet. In the middle of the Futhorc we have a similar sequence, the runes ᚳ, ᚹ, ᛊ, ᛏ, corresponding to the letters Κ, Ϙ, [ᚱ], ᛊ, Τ.

It is impossible that such remarkable correspondencies can have been wholly accidental; they must be surviving traces of the primitive order of the runes, which must have been that of the Greek alphabet. It seems therefore to be worth while to pursue the investigation a step farther, and to endeavour to ascertain whether the dislocations in the order of the runes can be accounted for on scientific principles. I am not aware that these principles have ever been formulated, it will therefore be necessary to establish them by an examination of the causes which have produced the dislocations in the order of other known alphabets; such, for instance, as the Ethiopic, Armenian, Persian, Turkish, or Arabic. An easy illustration is

afforded by the Arabic alphabet. The Arabic alphabet was derived from the Aramaic; the order of the letters has suffered very considerable dislocation, but, owing to the retention of the ancient names, and also of the primitive numerical values, it becomes extremely easy to identify them. In the Syriac alphabet, another descendant of the Aramaic, the old order of the letters has been preserved. By placing the Arabic and Syriac alphabets side by side the reasons of the changes in the order of the Arabic letters become at once manifest. We thus obtain the following table, in which the connections by dotted lines shew which of the Arabic letters have not been shifted from their original places. The bracketed letters are differentiated forms, evolved subsequently to the dislocations.

SYRIAC.			ARABIC.		
NAMES.	FORMS.	NUMERICAL VALUES.	NAMES.	FORMS.	NUMERICAL VALUES.
Olaph	ܐ	1	Elif	ا	1
Beth	ܒ	2	Ba	ب	2
Gomal	ܓ	3	Ta	ت	400
Dolath	ܕ	4	Tha	ث	500
He	ܗ	5	Jim	ج	3
Vau	ܘ	6	Hha	ح	8
Zain	ܙ	7	Cha	خ	600
Cheth	ܚ	8	Dal	د	4
Teth	ܛ	9	Dhal	ذ	700
Yud	ܝ	10	Ra	ر	200
Koph	ܩ	20	Zay	ز	7
Lomad	ܠ	30	Sin	س	60
Mim	ܡ	40	Shin	ش	300
Nun	ܢ	50	Ssad	ص	90
Semcath	ܣ	60	Ddad	ض	800
Ee	ܥ	70	Tta	ط	9
Pe	ܦ	80	Zza	ظ	900
Tsodé	ܨ	90	Ain	ع	70
Quph	ܩ	100	Ghain	غ	1000
Rish	ܪ	200	Fa	ف	80
Shin	ܫ	300	Qaf	ق	100
Tau	ܬ	400	Kaf	ك	20
			Lam	ل	30
			Mim	م	40
			Nun	ن	50
			Ha	ه	5
			Waw	و	6
			Ya	ى	10

It will be observed that the Arabic dislocations have been brought about by two causes. Certain letters have been placed side by side for the purpose of easier comparison, either (1) on account of a close resemblance in their forms; or (2) because of the similarity of their values. Thus *Ta* has been brought from the end of the alphabet into the third station, because of the resemblance in form to *Ba*; while *Ra*, for a like reason, has been moved up fourteen places, and placed next to *Zay*. The juxtapositions of *Qaf* and *Kaf*, and of *Waw* and *Ya*, are due to the similarity of their powers. Both causes have co-operated in bringing about the peculiar arrangement of the four sibilants, *Zay*, *Sin*, *Shin*, and *Ssad*.

These two causes, similarity of form, and similarity of value, which have effected such an extensive re-arrangement of the Arabic letters, are sufficient to account for the differences in the order of the Greek letters and of the runes. It will be observed that in the Arabic alphabet ten only out of the twenty-two Syriac letters have retained their places; it will, therefore, be

Thracian Alphabet.		Gothic Futhorc.	
1.	A		
2.	B	F	2
3.	Λ	Λ	3
4.	D	Þ	4
5.	E	F	5
6.	I	R	18
7.	H	<	3 a.
8.	⊗		
9.	I		
10.	K, X	X	10 a.
11.	ᛚ	Þ	17 a.
12.	M	H	7
13.	N	ᚾ	13
14.	Ξ	I	9
15.	O, Y	ᛟ, Y	15
		ᚢ	7 a.
16.	Π	K	16, 2 a.
17.	Q, Ψ	Ψ	17
18.	R		
19.	S	S	19
20.	T	↑	20
21.	Φ	B	21, 2 b.
		M	7 b.
		M	12
		ᚴ	11
		M	8
		ᛝ	3 b.
22.	Ω	ᛟ	22

no matter for surprise to find that in the case of the Futhorc the same causes have produced a somewhat similar amount of change. The table on the opposite page shews that the Futhorc has suffered even less dislocation than the Arabic alphabet, thirteen out of the twenty-two Greek letters having retained their places. The small numerals, and the connections by dotted lines will enable the reader easily to trace the correspondencies.

If these changes of position, which it must have taken several centuries to effect, are divided into two or three hypothetical stages, it will be more easily seen that they all follow naturally from the two Principles to which the changes in the order of the Arabic and other alphabets are due. Subscript numerals are added in order to facilitate the identification of the letters.

Stage I. (*Greek Alphabet.*)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

Stage II. (*Hypothetical.*)

2 3 3a 3b 4 5 7 7a 7b 8 9 18 10 10a 11 12 13 15 15a 16 17a 17 19 20 21 22

Stage III. (*Hypothetical.*)

2 3 3b 4 5 8 18 3a 10 10a 17a 12 7 13 15 9 15a 7a 2a 17 19 20 11 2b 7b 22

Stage IV. (*Gothic Futhorc.*)

2 3 4 5 18 3a 10a 17a 7 13 9 15a 7a 2a 17 19 20 2b 7b 12 11 8 3b 22

First set of changes.

Omission of superfluous letters—1, 6, 14.

Development of gutturals and vowels—3, 7, 10, 15, 17.

Collocation of similar forms—18 and 10. (Cf. the Mœso-Gothic forms ᚴ and ᚲ.)

Result: Stage II.

Second set of changes.

Collocation of similar forms—7 b and 22; 7 and 13; 11 and 20.

Collocation of similar sounds—3 a and 10; 7 a, 9, and 15 a; 17 a and 10 a.

Development and replacement of labials—2, 16, 21.

Result: Stage III.

Third set of changes.

Omission of superfluous letters—10, 15.

Differentiation of similar forms—7, 13, 7 b, 22, 12.

Simplification of forms—5, 8, 17 a.

Collocation of similar forms—3 b and 22; 12, 8 and 7 b.

Collocation of liquids—11 and 12.

Result: Stage IV.

§ 18. The Oghams.

The Scandinavian settlers in Northumbria, Cumbria, and the Isle of Man, having left behind them so many runic records of their presence, it may seem strange that not a single runic stone should have been discovered in the Scandinavian colony of Pembroke, or even in Ireland, where Scandinavian chieftains bore sway for many years in the cities of Dublin, Waterford, and Limerick. The runic treasures of Wales and Ireland are limited to one small silver coin, struck in Dublin, which bears a runic legend[1]. But the fact of this remarkable absence of runic monuments in certain regions where they might have been looked for, must be taken in conjunction with another circumstance, equally remarkable, that it is exactly in those regions where the expected runic stones are wanting that Ogham stones abound. These facts will be explained if it can be established that the mysterious Ogham character, in which

[1] Worsaae, *Danes and Norwegians*, p. 338.

the most ancient records of Wales and Ireland are written, and respecting which so many wild conjectures have been made, was originally nothing more or less than a very simple and obvious adaptation of the Futhorc to xylographic necessities, the individual runes being expressed by a convenient notation consisting of notches cut with a knife on the edge of a squared staff, instead of being cut with a chisel on the surface of a stone. Some such method of notation seems to be implied by the words *book* and *buch-staben* (beech sticks), and may probably be referred to in the often quoted lines of Venantius Fortunatus, a sixth century poet, who says,

> Barbara fraxineis pingatur rhuna tabellis,
> Quodque papyrus agit, virgula plana valet.

The geographical distribution of the Ogham inscriptions raises a strong presumption in favour of the Scandinavian origin of the Ogham writing. The Ogham districts of Wales and Ireland were, without exception, regions of Scandinavian occupancy. As I have elsewhere pointed out[1], the

[1] *Words and Places*, fifth edition, pp. 117, 118.

existence of a very early Scandinavian settlement in Pembrokeshire is indicated by a dense cluster of local names of the Norse type which surrounds, and radiates from, the fiords of Milford and Haverford. The Ogham district in Wales is nearly conterminous with the limits of this Scandinavian colony as determined by the local names. Seventeen out of the twenty Welsh Ogham inscriptions are in the counties of Pembroke, Cardigan, Carmarthen, and Glamorgan, nine out of the seventeen being in Pembrokeshire itself. There are also two Ogham inscriptions in Devon, and one in Cornwall, and there are said to be one or two in Scotland[1]. But of the extant Ogham inscriptions more than five-sixths are in Ireland, and these, with four or five exceptions, are found along that part of the Irish coast which lies opposite to the Scandinavian colony in Pembroke, and which, as is attested by such local names as Waterford and Smerwick, was frequented and settled by the Northmen. No less than 148 out of the 155

[1] Rhys, *Lectures*, pp. 288–303.

Irish Oghams are found in the four counties of Kilkenny, Waterford, Cork, and Kerry[1], or, roughly speaking, they fringe the line of coast which stretches between the two Scandinavian kingdoms of Waterford and Limerick.

It may safely be affirmed that where the Northmen never came Ogham inscriptions are never found.

Strong as is the presumption raised by the external evidence, the internal evidence is still more convincing.

The key to the Ogham writing is obtained from the Book of Ballymote, a MS. of the fourteenth century, which, in addition to sundry Irish Alphabets and Scandinavian Futhorcs, contains a transcript of a tract on Oghams. This tract, from internal evidence, must have been composed at some time between the years 704 and 909, and is assigned by Dr. Graves to the early part of the ninth century[2]. That the Ogham writing is at least as old as the eighth century may therefore be taken as certain, but

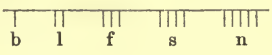
[1] Rhys, *Lectures*, p. 376.

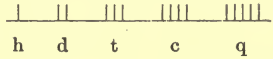
[2] *Hermathena*, vol. ii. p. 449.

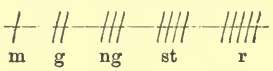
how much older the earliest inscriptions may be is far more difficult to determine. The best authorities, Dr. Graves, Mr. Whitley Stokes, and Professor Rhys, consider that some of them cannot be later than the fifth or sixth century. I accept this very early date with some misgiving, but without discussion, seeing that it depends on the antiquity to be assigned to certain grammatical forms occurring in the inscriptions, a matter as to which only a professed Keltic scholar can be competent to pronounce an opinion.

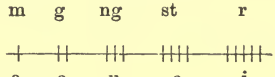
The Ogham characters in their primitive form probably consisted of a system of notches on the edge of a squared stick or stone. They were afterwards written on a plane surface, on either side of a central line. The name given to this line, *druim*, shows that it represented the 'ridge' of the primitive squared staff.

The arrangement of the Oghams, according to the mediæval Irish tradition, was in four 'groups,' *aicme*, each group comprising five Ogham characters. We have—

Group I. 

Group II. 

Group III. 

Group IV. 

The merest glance at this Ogham alphabet leads to the opinion that it did not originate independently among an unlettered people, but that it was an adaptation from some pre-existing alphabet, and it is no less manifest what that alphabet must have been. If it had been, as has been supposed, an independently invented cryptogram, we may be sure that the more complex and troublesome symbols would not have been employed to denote the most constantly recurring sounds, nor, on the other hand, would the easiest and simplest signs have been selected to denote sounds which were hardly ever required in practice. Now ⊥, the simplest of the Ogham symbols, represents a sound that never occurs in any of the inscriptions, and we know its value only from tradition, whereas ᚈ, one of the most troublesome and difficult of the symbols,

denotes a letter which was in constant use. So again -/// never occurs in the inscriptions, while -//// is perpetually employed.

It will then be safe to conclude that the Ogham alphabet was constructed according to some rule of thumb out of some familiar existing alphabet. What could this alphabet have been? Geographical considerations, as we have already seen, point to the Futhorc, the only reasonable alternative being the Latin alphabet advocated by Dr. Graves, as we may dismiss from consideration the hypothesis of Captain R. F. Burton that the Ogham descends, through the Arabic Mushajjar, from the Nabathæo-Chaldeans of the Plains of Shinar.

If then the choice lies, as it seems to do, between the Latin alphabet and the Futhorc, a strong presumption in favour of the latter is afforded by the absence of an Ogham *p* (see p. 75), and the still more significant fact of the existence of the unnecessary and unused symbol for *ng*, a peculiarity with respect to which the Ogham and the Futhorc stand alone among European alphabets.

But these presumptions, derived from internal evidence, are raised to certainties by an examination of the Irish Bethluisnion alphabet, which forms a connecting link between the Ogham on the one hand and the Futhorc on the other. In the Bethluisnion alphabet, so called, like the Alphabet itself, from the names of the two letters with which it commences, we find on the one hand that the order of the letters is exactly the same as the traditional order of the Oghams, the Bethluisnion characters being arranged in the same four groups, containing the same five sounds in each group; but on the other hand we find that the names of the Bethluisnion letters are, for the most part, obviously mere Keltic adaptations of the names of the Scandinavian runes. It follows that the Bethluisnion names must have been the names by which the Ogham characters were designated before they were superseded by the Irish adaptations of the Roman uncials. But if the Oghams bore names adapted from the names of the runes, there seems to be no escape from the conclusion, to which all other considerations also point, that

the Ogham alphabet was based upon the Futhorc.

The Bethluisnion alphabet, in its mediæval form, is as follows:—

The Bethluisnion Alphabet.

	Values.	Names.	Meanings.
Group I.	*b*	beith	birch.
	l	luis	rowan.
	f	fearn	alder.
	s	sail	sallow.
	n	nion	ash?
Group II.	*h*	huath	hawthorn?
	d	duir	oak.
	t	tinne	?
	c	coll	hazel.
	q	queirt	apple.
Group III.	*m*	muin	vine?
	g	gort	ivy?
	ng	ngedal	reed?
	st	straif	sloe?
	r	ruis	elder. (privet?)
Group IV.	*a*	ailm	fir? (palm?)
	o	onn	furze. (ash?)
	u	ur	heath?
	e	eadhadh	aspen?
	i	idhadh	yew.

Dr. Graves has pointed out that some of the Bethluisnion names, those which I have

distinguished by a note of interrogation, are not true tree names in ancient Irish. It would seem that meanings have been arbitrarily or fancifully assigned to some of the names by later grammarians in order to complete the fanciful notion of the 'trees' in the 'Ogham forest.'

Let us now compare these Bethluisnion or Ogham names with the corresponding rune names. We have—

Ogham Names.		Rune Names.	
b	braut, beith	*b*	berith, brita.
l	luir, luis	*l*	logr, laaz.
s	suil, sail	*s*	sigil, sihil, sil, sol.
d	duir, dair	*t*	tir, tyr.
m	muin	*m*	man.
r	rait, ruis	*r*	rehit, rat.
q	queirt	*q*	querth.
g	gort	*g, q*	ger, quor.
ch, h	sgeith, huath	*g, q*	gifu, quith.
c	coll	*c*	calc.
t	trom, tinne	*th, d*	thorn, dorn.
e	egui, edad	*e*	hæc, ech, eth, eh.
i	iechua, idad	*i*	hic, ih.
a	ailm	*a*	arm.
u, oi, o	ur, oir, or	*u, o, y*	ur, oyr, yr.
o, u, w, f	onn, uinseann, fearn, ferus .	*w, f*	wen, fer.
ng	ngedal	*ng, o*	ing (odal).

To the standard names, as given in the Book of Ballymote, I have added from other sources a few variants which seem to approximate to the more ancient forms before they were made significant as Irish words. I have also selected for comparison several runic variants, taken chiefly from the Scandinavian Futhorcs.

The coincidencies between the Ogham and Runic names are too close and too numerous to be accidental. That the Ogham names were derived from the rune names, instead of the rune names from the Ogham names, is proved, if proof be thought needful, by the word *ngedal*, the name of the Ogham character for *ng*. This word seems to be meaningless in Irish, the signification of 'reed' being most probably merely an attribution. Now in the Futhorcs the *ng* rune, ᛝ, and the *o* rune, ᛟ, are called respectively *ing* and *odal*, but their names and powers are constantly confused and interchanged, owing to the close resemblance of the forms, and their juxtaposition at the end of the Futhorc. It would seem that the word *ngedal* was produced by some one who was doubtful

whether *ing* or *odal* was the true name of the rune ᛟ, and who solved the difficulty by compounding into one word the two names which he found attributed to the rune.

From the foregoing arguments we may conclude with some confidence that the Ogham alphabet was, by some unknown process, constructed out of the Futhorc. In order to discover what was the principle of construction it will be needful to restore, as far as possible, the primitive powers of the Ogham characters.

Three of the Oghams, , do not occur on any of the monuments[1]; their values, *h*, *ng*, *st*, being those assigned to them by tradition, as recorded in the book of Ballymote, and confirmed by the evidence of the Bethluisnion and Bobeloth alphabets. Professor Rhys has shown that *h*, the traditional value of ᚆ, arises from the debilitation of a primitive guttural, which he takes to have been *ch*. He also shows that the value of  was originally not *st* but

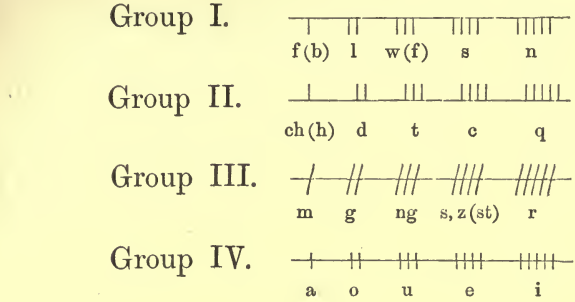
[1] I take this assertion from Professor Rhys. It is possible that the forthcoming work of Mr. Brash on the Ogham Monuments may prove the statement to be incorrect.

z, and that this *z* must be a reduction of a primitive *s*. He then proves that an Irish *f* represents a Welsh *v* or *w*, and shows that the Ogham ᚃ, which in Ireland has the value of *f*, retains in the Welsh inscriptions its primitive value of *w*. He also considers that the character ᚁ must originally have represented *f* as well as *b*[1].

In addition to these restorations of the primitive values of the Oghams, which have been established by Prof. Rhys, we must expect to find a *Lautverschiebung* among the mutes and vowels. That the Ogham *d*, for instance, answers to a runic *t*, is proved by a comparison of their names, *duir* and *tir*. But the precise amount of this *Lautverschiebung* it will be more easy to determine hereafter.

Taking then the primitive values of the Oghams so far as they have been restored by Prof. Rhys, we may replace the traditional values by the following scheme, in which the later values are distinguished by brackets.

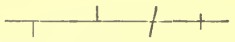
[1] Rhys, *Lectures on Welsh Philology*, pp. 273–277, 286.

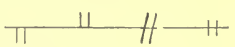


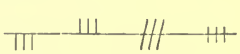
Now as Dr. Graves and Prof. Rhys have observed, this arrangement is clearly not the primitive order of the Oghams; the classification is based upon form, and the collocation of the vowels in a group by themselves indicates the revision of a grammarian. The constructor of the Oghams would most certainly have begun by employing the more simple and easily written forms, and would only have resorted to the more complex characters when the simpler combinations were exhausted. We may safely assume that the primitive arrangement was in five Classes, each containing four Oghams, instead of in four Groups of five Oghams. This conclusion is supported by the Welsh tradition that in the time of Beli the Great there were only 16 'awgryms,' that they were afterwards

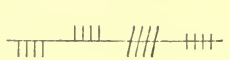
increased to 20, (the Irish number) and that finally, in the time of Geraint Fardd Glas, the number was raised to 24.

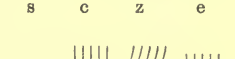
Resolving the four traditional Groups into five Classes, we obtain as the primitive arrangement—

Class 1. 

Class 2. 

Class 3. 

Class 4. 

Class 5. 

If the Ogham mystery is to be cleared up we must seek for some principle by means of which the Futhorc can be rearranged in five classes of four runes, so as to correspond with the five classes of four Oghams.

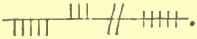
The arbitrary and complicated rearrangements of the Latin and Phœnician alphabets by means of which Dr. Graves and Prof. Rhys endeavour to evolve the order of the Ogmic characters are

so obviously inadmissible that some other principle must be sought.

A child, on being shown such runes as ᚠ, ᛉ, or ᛯ, will immediately pronounce them to be trees. The Scandinavian and Keltic races, looking with awe on the mysterious Runes and Oghams, seem to have regarded them as representations of trees, constituting a sort of alphabetic forest or arboretum. In several cases the names of the runes are actually names of trees; *beorc* being the birch, and *thorn* the thorn tree. In later times this device of nomenclature was more extensively employed, *ac*, the oak, and *æsc*, the ash, being added to the runic trees.

This notion of the Northmen that the runes were a sort of trees is exhibited in their ingenious invention of the 'tree runes,' and it was carried out in a still more elaborate method in the construction of the forms and names of the Ogham characters, which were invariably regarded and spoken of as trees. The Book of Ballymote speaks of the twigs and branches of the Ogham tree, the individual characters are called 'trees,' *feada*, the consonants are called 'side trees' *tao-*

bomna, and each cross stroke is called a twig, *fleasg*[1]. A considerable proportion of the names of the Ogham characters, such as *sail, duir, coll, idad, ceirt, ruis, ailm* and *onn*, are true tree names in ancient Irish; in other cases, such as *muin, gort*, and *ngedal*, tree significations seem to have been assigned to words which were adopted from the names of the Scandinavian runes.

The resemblance of the Oghams, in their earliest forms, to trees was much more obvious than it was afterwards. The Oghams, according to the Book of Ballymote, were originally written, not on horizontal lines, but on vertical stems, thus *n*, *t*, *g*, *e*, were denoted by  , ,  ,  , symbols which in the later Ogham become  .

These primitive forms of the Ogham symbols would seem to have been directly suggested by the 'tree runes,' which are occasionally found side by side with the ordinary runes, as at Rök and Rotbrunna in Sweden, Maeshowe in Orkney, and Hackness in Yorkshire[2]. The principle on

[1] Graves, *Hermathena*, vol. ii. p. 457.

[2] See Stephens, *Runic Monuments*, pp. 228–240, 467, 468.

which the tree runes were constructed is very simple. The runes of the Futhorc were divided into families headed by certain letters, the common division being, (1) Frey's family, containing the runes from *f* to *h*; (2) Hagl's family, from *h* to *t*; (3) Tyr's family, from *t* to the end. An upright stem or tree trunk was then taken, and the number of branches to the left denoted the family, and the number to the right the station in that family. Thus ᛘ as a tree rune would represent *u*, the second rune in the first family of the Futhorc[1].

Although the notion of the Ogham trees was in all probability suggested by the tree runes, yet it is manifest that no modification of the principle on which the tree runes were constructed will suffice to explain the Oghams. We must therefore seek for some other device, which, like

[1] The same principle was applied by the Arabs, after they had come in contact with the Varangians in the ninth century, to the construction, out of the Arabic alphabet, of the very simple cryptograms called *El Mushajjar* and *El Shajari*, the 'branched' or 'tree shaped,' of which much needless mystery has been made.

the key to the tree runes, ought to be simple, arbitrary, and easy to remember.

Now if we bear in mind that both the Runes and the Oghams were regarded as constituting a mysterious alphabetic forest in which grew trees of twenty Species, what would be the most obvious and easily remembered principle by which the runic trees could be arranged in five Genera, so as to correspond with that division of the Ogham trees into the five classes of four Oghams, which a system of notation by notches made imperative?

In such a case the principle most likely to be adopted by an uncultured people would, I think, be to arrange the trees of the runic arboretum according to a sort of rough botanical classification, putting together in the same class those runes which most resembled each other in shape and general appearance. Now if any one, unacquainted with the Oghams, will try the experiment of taking the Futhorc and endeavouring to class the runes according to their shapes, considered as imaginary trees, he will find that they naturally resolve themselves into five classes,

which correspond, with singular exactitude, to the five classes in which the primitive Oghams were arranged.

The inventor of the Oghams, proceeding on this principle, would naturally begin with the first rune in the Futhorc. His first class would comprise those branched runes with markedly tree like forms, such as ᛉ and ᚾ, which bear a general resemblance to ᚠ, the first rune in the Futhorc. The four runes of this type would be expressed by the first or simplest class of Oghams, those with one twig, (*fleasg*) such as ᚁ, ᚂ, ᚃ, ᚄ.

From the second rune, ᚢ, he would obtain a type for his second class, which would consist of the runes with a single fork or elbow, such as ᚨ, ᛁ, and ᚲ. These would be denoted by Oghams with two twigs, ᚅ, ᚆ, ᚇ, ᚈ.

The third rune, ᚦ, gives a conspicuous and well-marked type for the third class of runes. These would be the closed or looped forms, and might be conceived to represent either hollow trunks, or trees with interlacing boughs. Such runes as ᚦ, ᚹ, ᛝ, ᛟ, would therefore

be represented by Oghams with three twigs,  .

The fourth rune having already found an appropriate place in the first class he would go on to the fifth rune, ᚱ or ᛦ, which would supply a type for a well-marked fifth class, containing trees with diverging roots, such as ᚴ and ᚳ. Either because the fifth rune supplied the type, or because the root is the last and lowest characteristic feature of a tree, these root runes would naturally be represented by the fifth class of Oghams, those with five twigs,  .

The most striking rune forms being now exhausted, the four remaining runes would form a sort of residuum, to be thrown together into the remaining class. They bear a general resemblance to trees with crooked stems, such as, ᛊ, ᚿ, ᚺ, and would be represented by Oghams of the fourth class, those with four twigs.

Thus the characteristics of the five classes of the rune trees would be (1) branches; (2) forks; (3) loops; (4) crooks; (5) roots; a classification beginning with the branches at the top, and

thence proceeding regularly downwards, and ending with the roots. That this scheme is fanciful is no objection to it, but rather an argument in its favour when we remember the fancifulness of the whole system of the Oghams and their names.

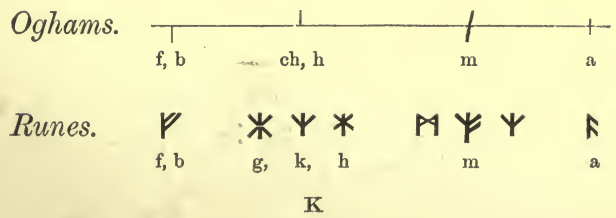
This theory as to the ideas which may have passed through the mind of the contriver of the Oghams must now be tested by ascertaining whether it will suffice to explain the actual facts.

The five classes of Oghams would correspond as follows to the five classes of runes :—

First Class.

Type. The first rune, ᚠ.

Substitution. One-twig Oghams for Branch Runes.

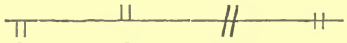


Second Class.

Type. The second rune, ᚫ.

Substitution. Two-twig Oghams for Fork Runes.

Oghams.



Runes. ᚠ ᛏ ᛚ ᚲ ᚫ

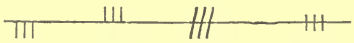
l t c u

Third Class.

Type. The third rune, ᚦ.

Substitution. Three-twig Oghams for Loop Runes.

Oghams.



Runes. ᚹ ᚦ ᛝ ᛟ ᛃ

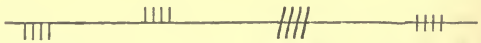
w th ng o, y

Fourth Class.

Type. The Residuum.

Substitution. Four-twig Oghams for Crook Runes.

Oghams.



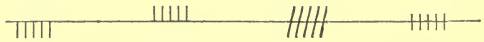
Runes. ᛊ ᛋ ᚷ ᛋ ᛉ ᛞ ᚢ ᛋ

s g s, z, st i, y

Fifth Class.

Type. The fifth rune, ᚱ.

Substitution. Five-twig Oghams for Root Runes.

Oghams. 

Runes. ᚾ ᚴ ᛦ ᚱ ᛁ ᛇ

n k, q r e, y

In the foregoing scheme alternative forms of the runes have been given in some instances. This has been done on account of the uncertainty as to the date at which the Ogham alphabet was invented. Thus if the earliest Oghams must be dated not later than the fifth century, as Professor Rhys contends, the runes ᛦ and ᛇ will represent Ogham gutturals, whereas if it should prove possible to place the invention of the Oghams as late as the eighth century these runes might represent *m* and *y*. Similarly the rune ᚴ might be either *k* or *n*, and ᛋ either *y* or *s* according to the date. Similar considerations affect the whole of the runes which have been placed in the fourth class.

The phonetic differences between the powers

of the Oghams and of the corresponding runes do not present any insuperable difficulties. The equivalence of the Welsh *broga* and the Teutonic *frog*, and the uniform use of the *f* rune, ᚠ, to denote *b* on the Keltic soil of the Isle of Man explain the representation of the *f* (*b*) rune by the *b* (*f*) Ogham. Also the names *duir* and *tir* show that the Ogham *d* represented a runic *t*. This is in accordance with phonetic law, a primitive *t* being normally debilitated in Welsh into *d*[1]. The runic *th* might then by Cross Compensation take the power of *t*. In like manner a Welsh *g* represents a primitive *c*[2], and a primitive *g* might then become *c* by provection. Thus the changes among the Mutes, far from offering any difficulty, supply a convincing confirmation of our hypothesis as to the mode in which the Oghams were derived from the Runes. We are brought, by an independent method, to the exact Law of the *Lautverschiebung* between Old Welsh and Gothic, according to which O.W. *d* corresponds to G. *t*, O.W. *t* to G. *th*, O.W. *g*

[1] Rhys, *Lectures on Welsh Philology*, Lecture II.

[2] Ibid.

to G. *k* (*c*), and O.W. *c* to G. *g* or *h*[1]. Nor can the interchange between the two throat vowels *o* and *u*, and the two lip vowels *e* and *i*, be deemed a matter of importance when we remember the vague uncertainty with which the vowel sounds are denoted in runic inscriptions[2].

On phonetic grounds it would seem probable that the Oghams originated in the Scandinavian colony of Pembrokeshire, and were thence carried across to the opposite Irish coast. The chief reasons for this belief are as follows. The Ogham symbol ᚃ, which stands for *f* in Ireland, has retained its original power of *v* or *w* in the Welsh inscriptions. Now this change of *w* or *v* to *f* is peculiar to the Erse language, and does not take place in Welsh[3]. Hence if the Oghams had originated in Ireland, and had thence passed over to Wales, this Ogham would have had the power of *f* or *b*, instead of *w*, in the Welsh inscriptions.

[1] Rhys, *Lectures*, p. 17.

[2] In runic inscriptions found in the single province of Upland (Sweden) the vowel sound in the word *sten* (stone) is expressed in no less than twelve different ways, *e, a, i, o, u, ei, ia, ai, au, ae, æ, oi.*

[3] Rhys, *Lectures*, p. 280.

On these grounds we may conclude that the Pembrokeshire colony was earlier in date than the settlements on the opposite Irish coasts; or, at all events, that the Oghams must have been employed in Wales for some considerable period before they were introduced into Ireland.

But here we are confronted with some important and startling considerations touching the date of the earliest Teutonic settlements in Wales and Ireland. On grammatical grounds Mr. Stokes and Professor Rhys have been driven to the conclusion that the invention of the Ogham writing must be placed 'before the fifth century.' An equally early date is indicated by the older Ogham inscriptions being written from right to left, a fact which would lead us to infer that the Oghams were derived from the runes at a time when the direction of the runic writing was still retrograde.

It would therefore appear that Scandinavian immigrants must have established themselves in Wales and Ireland several centuries before the commencement of the inroads of the vikings. The harrying of the Irish coasts did not begin

till nearly the end of the eighth century, and the rule of the Ost-men Kings in Ireland dates only from the middle of the ninth. It is manifest that a knowledge of the Ogham, a character derived from the runes, could not have been acquired by the Irish and Welsh Kelts from mere bands of plundering marauders, but must have been obtained from established settlers on their shores, with whom peaceable intercourse had been set up. Moreover the tract on Oghams, contained in the book of Ballymote, appears to have been written about the year 800, at which time the Ogham writing must have been already of considerable antiquity, as the tract contains internal evidence that the compiler was using older materials, some of which he only partially understood [1].

From these considerations it is probable that the introduction of the Oghams into Ireland, and their anterior invention in the Pembrokeshire colony, must be earlier than the end of the eighth century when the inroads of the vikings first began.

[1] Graves, *Hermathena*, vol. ii. p. 450.

We are thus brought to the conclusion that the legends as to an earlier Scandinavian colonization in Wales and Ireland, as to which no trustworthy historical record has come down to us, may contain a basis of truth. The ancient annals and traditions of Ireland make a clear distinction between the historical Danish marauders of the ninth century, who are called Dubhgalls, the 'Black Strangers,' and the earlier invaders called the Tuatha De Danann, whose arrival is placed far away in the dim period of Irish legend. It seems probable that these Tuatha De Danann were also Danes, belonging to a much earlier immigration, and from them, I would venture to suggest, the Oghams may have been obtained. Indeed it is categorically asserted in the Ogham tract in the book of Ballymote that this was the case.

If a further conjecture may be ventured I should be inclined to identify the Tuatha De Danann with the Jutes from Jutland, whose settlement in Kent and the Isle of Wight is the earliest Teutonic migration into Britain which can be called historical.

In favour of this conjecture it may be urged that the Saxons, like the kindred confederations of Franks and Lombards, seem to have been unacquainted with the runes, as thus only can we account for the entire absence of runic stones from the Saxon parts of England. Runic inscriptions have been found in no inconsiderable numbers in Yorkshire, Durham, Northumberland, and Cumberland, but not one in Wessex, Sussex, Essex, Mercia, or even in East Anglia. The only Southumbrian region which can boast of any runic inscriptions is that part of Kent which was settled by the Jutes. The most ancient of all the runic stones in the British Isles is one found at Sandwich, which is assigned to the fifth century. One of the graves in the great burying place at Gilton, near Sandwich, contained a sword, whose silver hilt was inscribed with runes of an equally early date. At Dover also there is a runic stone of the early Christian period [1].

Hence it would appear that the Jutes were

[1] Stephens, *Runic Monuments*, pp. 363, 370, 465.

the only tribe belonging to the first swarm of the Teutonic immigration into Britain who were acquainted with the runes, an inference which agrees with the abundance of runic monuments of the oldest type in Jutland, and their remarkable absence from the Fatherland of the Saxons and the Angles.

There seems to be no valid reason to prevent us from supposing that the Jutish adventurers of the fourth century may have crept on, from Kent and the Isle of Wight, along the southern coast of England as far as the fiords of Pembrokeshire, and from thence have crossed over to the sheltered havens of Munster. The local names, which afford the chief evidence as to the existence of a Scandinavian colony in Pembroke, are certainly not opposed to this view. In the Ogham region of South Wales we find such local names as Helwick, Oxwich, Ramsey, and Gateholm; in the Ogham region of Ireland we have Helvick and Smerwick; and in the runic region of Southumbrian England we find Sandwich, Ramsgate and Romney. If then it be allowable to conjecture that in the fourth or fifth century the

Jutes may have established settlements in Wales and Ireland, as well as in Kent and the Isle of Wight, the remaining difficulties as to the date and origin of the Ogham writing will disappear. In no other way can the apparently conflicting conclusions of Palæography, Philology, and History so easily be reconciled.