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## RUNICA <br> MANUSCRIPTA

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## CORRIGENDA

p．xxiii，1． 21 ：should read ：．．．the actual usage of runes and Latin letters shows．．．
p．14，1．18：．．．by having the lateral strokes．．．
1． 23 ：．．．not unparalleled form．．．
p．26，1．20：．．．the Epilogue of his Manual？
p．4o，1． 5 ：．．．covers some appalling lacunae．
p．105，1． 28 ：unparalleled and may be due．．
p．130，1． 2 ：The latter may go back．．．
1． 3 ：．．．a concession to．．．
p． 145,1 ． $16:$ ．．．is identical with．．
p．195，1．6：This is hardly surprising．．
p．216，1．4：．．．can still be recognized．
p．224，1． 3 ：．．．Rabani monachi de computo liber．．．
p．258，1．I：．．．the form of the rune．．．the vertical stroke．．
p．301，l． $33: . . . y$ and $z$ of the Latin alphabet．．．
p． $327,1.13$ ：．．．ad Secundinum episcopum．．．
p． $335,1.27: \overline{\mathrm{B}}=$ Passus CCC，etc．
In fig． 12 （p．78）a rune $m$ is missing to the upper left of the third rune in the last line．Fig． 15 （p．120）should be as follows ：

| $\begin{aligned} & \text { feh } \\ & \xi_{f} \end{aligned}$ | $\stackrel{u}{u}_{\Lambda_{u}}$ | $\begin{gathered} \text { dorn } \\ \nabla_{d} \end{gathered}$ | $\begin{gathered} \text { oos } \\ \text { Noo } \end{gathered}$ | $\begin{aligned} & \text { rat } \\ & \mathrm{R}_{\mathrm{r}} \end{aligned}$ |  |  |  | $\begin{aligned} & \text { huur } \\ & \text { Puu } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| dren | nod | iis | ger | ih | per | elux |  | sigi |  |
| Nh | tn | 1 | $\phi_{9}$ | $J_{k}$ | $\mathrm{N}_{\mathrm{p}}$ |  |  |  |  |
| ti | berg | eh | man | lagu |  | ta |  | odi |  |
| 个t | Bb | Me | ${ }^{\prime}$ |  |  |  |  | 人。 |  |
|  | asc |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |



## PREFACE

Although many runic inscriptions in manuscripts have been examined before, no study covering all material has been untertaken thus far. Some scholars have propounded theories taking account of all material known to them, but nobody has tried to find out whether these reconstructions of the background of the runica manuscripta agree with the available material. My task was consequently a double one. First I had to examine the individual items and their relations to their environment; then I had to see whether they could really be integrated into an overall picture, and whether this picture agreed with that presented thus far. Some readers will no doubt feel that I have given too much space to details; others may object that my scepticism went too far. To the former I would say : how can we know which details are relevant? Those which look irrelevant now, may become significant ten or twenty years hence. When I examined the studies on the subject published till now I found that progress had been slow not because too many details had been taken into account, but because important details had been overlooked. The readers who should have wished a more synthetic treatment will see that the more material is examined, the greater the number of question marks. They will also see that premature syntheses are more harmful than helpful, because they prevent the student from realizing where the problems lie.
The subject treated here raises problems in various fields. To treat it in a way that satisfies from all points of view, one should be a runologist, a philologist, a historian, a palaeographer, an art historian and some sort of a detective all in one. I should never have been able to complete it without help from many parts. It has been a most pleasant experience to find so much willingness to help and advise.
In the first place my gratitude goes to the Members of the

Faculteit der Wijsbegeerte en Letteren of the Rijksuniversiteit in Ghent, whom I found always ready to put their knowledge and experience at my disposal. I am most grateful to Professor F. De Backer, under whose supervision it was a pleasure to work, and whose help and encouragement made my task much easier. I also wish to thank him for having corrected those inaccuracies and stilistic blemishes which easily pass unobserved when one does not write one's mother tongue.
Among the other Members whose assistance I gratefully remember I have to mention especially Professor E. I. Strubbe, whose vast experience in palaeographical matters made him a safe guide in that field; Professors F. L. Ganshof and J. Dhondt, whose counsel in historical questions proved most enlightening; Professor P. Van de Woestijne who helped me to solve some problems of Latin; Professor G. De Poercq, who kindly drew my attention to Mandeville's alphabets and assisted me in other matters as well; finally Professor P. De Keyser, who helped me to find a suitable illustration for the discussion of the hahalruna

My thanks also go to a far wider circle. Among the scholars abroad to whom I am much indebted I must mention first of all Professor B. Bischoff (Munich), without whose numerous suggestions, and the valuable information which he gave in a most unselfish way, I would hardly have been able to complete this work. It was most gratifying, too, to find one of the foremost students of palaeography and Mediaeval culture prepared to read a chapter of the first draft in typescript and to offer his advice; and still more to find him expressing the hope that this work might soon appear in print.
I also owe thanks to Professor Bruce Dickins (Cambridge), who not only enabled me to examine the manuscripts of Corpus Christi College in the best conditions, but with whom I had also the privilege of discussing the plan of my work.
I am no less indebted to Dr. C. E. Wright (London), whose work in this field of study I had full opportunity to appreciate, and who also very kindly read a chapter of the first draft in typescript. Moreover I owe him special thanks for having assisted me whilst I was working at the British Museum.
I wish to express my gratitude to Professor O. Homburger,
whose suggestions made my work at the Stadt- und Hochschulbibliothek in Berne the more fruitful; to Dr. J. Duft whose helpfulness I could fully appreciate while examining manuscripts at the Stiftsbibliothek in St . Gall; and to Professor K. Jackson (Edinburgh) for his advice and kind encouragement when my study brought me to examine matters in the field of Celtic.
A special word of thanks is due to my friend Dr. G. De Smet (Oudenaarde), who also read a chapter of the first draft and discussed a number of problems with me.
As I indicate in the Introduction, I owe thanks to many library authorities for having provided me with photostats and microfilms of manuscripts I could not examine de visu, for allowing me to reproduce them here and for giving me all sorts of information in a most gracious way. I beg the staffs of the following libraries to find here the expression of my gratitude

Avranches, Bibliothèque Municipale.
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Kassel, Landesbibliothek.
Leyden, Bibliotheek der Rijksuniversiteit.
London, British Museum.
Munich, Bayerische Staatsbibliothek.
Nürnberg, Germanisches Nationalmuseum.
Oxford, St. John Baptist College.
Bodleian Library
Paris, Bibliothèque Nationale.
Bibliothèque de l'Arsenal.
Salzburg, Stiftsbibliothek.

Runes and Runica Manuscripta

The earliest runic inscriptions, viz. those of $\emptyset v r e$ Stabu, Freihov, Kowel, Vi, Dahmsdorf, Mos, Torsbjerg and perhaps one or two others, are mostly dated in the third or the late second century A. D. Whether runic writing had been practised for any length of time before those earliest inscriptions, as some authors maintain, we do not know. The origin of the runes is still debated. Many have forms which closely resemble letters in contemporaneous alphabets of Southern Europe (Greek, Latin, North Etruscan); so much so that no doubt is permitted about the runes being derived from one of those alphabets. No solution proposed thus far can be considered entirely satisfactory, but the general trend is in favour of derivation from the Latin alphabet. As I have discussed the various hypotheses elsewhere (1), I give only a few general observations on this question, which may serve to justify the present study.

The material with which scholars have tried to solve the genetic problem is heteroclitic. The solution is usually sought in a combination of various arguments, but the preference of scholars for one or other field seems to play a part in the actual demonstration, if not in the choice of the solution itself.

Some authors have tried to solve the problem mainly from the angle of the alphabet and its history. Thus L. F. A. Wimmer and H. Pedersen derive the runes from Roman capitals (2). They depend in the first place on the resemblance between the two alphabets, assuming tacitly that the greater the resemblance,
(1) Problemen, 193 ff.; Richtingen, 5 ff. Cf. also O. von Friesen, De senast framstälda meningarna; A. NordLing, Runskriftens ursprung; F. Askrberg, Norden och kontinenten, $38 \mathrm{ff}$. ; A. Bexssted, Mälruner, $132 \mathrm{ff}$. Judging only by a short summary, I suspect that the theory advanced by V. WANsCHER, La . Europe, overstrains the evidence and will find little approval.
(2) L. F. A. Wimmer, Die Runenschrift, 139; H. Pedersen, L'origine.
the more chances there are that two alphabets are related. The transition from one alphabet to another must be as 'natural' as possible. This procedure lies open to many attacks : how can we decide whether one transition is more natural than another, whether one alphabet is more easily transformed into runes than another?

Of course all explanations of the runic alphabet must be based int. al. on a comparison with possible models, but most scholars have looked for support in other fields, especially in archaeology, prehistory and history. They connect the origin and early diffusion of the runes with archaeological phenomena and historical events. B. Salin and O. von Friesen, e. g. associate the genesis of the runes with the settlement of the Goths in the Black Sea area, and their diffusion with the spread of a special form of culture which can be traced in the Germanic zoomorphic ornamental style (1). F. Altheim and others have been struck by the similarity between rock carvings in S . W. Sweden and in some valleys of the Alps, and between the runes and the so-called North Etruscan alphabet; they connect the origin of the runes with the raid of the Cimbrians and the Teutons in Northern Italy at the end of the second century B. C. (2).

Archaeology, however, is not the perfect assistant of runology which some scholars believe it to be (3). We may question their right e.g. to place runes and ornamental styles on one level. Runic writing can hardly be considered as an article of trade and export comparable to other elements of material civilization. At the origin it was probably a secret craft, if the interpretation of OGmc. *rün- as 'secret, mystery', etc. is to have any value. It was never used by many : it is no paradox to say that Germanic culture remains illiterate down
(1) B. Salin, Thierornamentik, 145 ff.; O. von Friesen, Runskriftens härkomst, and other works by the same author.
(2) F. Althbim-E. Trautmann; Vom Ursprung der Runen; H. Arntz, Handhuch1, 52 f., Handbuchan, 30 ff.; G. BAzsecke, Vor- und Frühgeschichte I 96 f.; F. Altheim-E. Trautmann-Nehring, Kimbren und Runen.
(3) See e.g. F. Askeberg's defence of archaeology in Norden och kontinenten, 38 f.
with no other alphabet, is still obscure : not one of the many attempts to solve this riddle can be considered convincing. The name fupark, which is often given to the runic alphabet, consists of the first six letters in the original order.
There is another peculiarity the origin of which is likewise obscure. The fupark was divided into three groups of eight runes each (1). These subdivisions are indicated on the Vadstena and Grumpan bracteates (sixth century), but we have no earlier evidence. In Chapter II I shall have to return to this peculiarity (p. 89 ff .).
For a third feature of the fupark we have no direct epigraphical evidence at all. Yet there can be no doubt that it goes back to the first centuries of runic writing. Each rune had a name, usually a word (either a common noun or a proper name) beginning with the sound indicated by the rune. The rune for $m \mathrm{e} . \mathrm{g}$. was called *manna- ' man'. Instead of writing such a name in full when it happened to occur in his text, the carver might be satisfied to engrave only the rune. Thus the $f$-rune on the Gummarp stone probably stands for $*_{\text {fehu }}$ 'riches, property'. The runes were not only abstract sound-symbols such as we are used to, but they had also something of ideograms. They were learned and called by their names. When the initial sound of such a name was affected by a phonetic change, the value of the rune itself was affected. Thus in OE., where *anstu-, the name of the $a$-rune, became $\ddot{0}$ s, a variant form of the original rune took the place of a in the fupark and received the value 0 . Only two rune-names make an exception to the acrostic principle, i. e. the principle that the rune-name begins with the sound indicated by the rune : nos. 15 and 22. Since the sounds they stood for were never found initially, their names begin with another sound ( $\mathbf{n}=$ 'Ing ').
The number of inscriptions using the 24 -rune fupark is rela-
(1) J. Lujecren, Rur-Lära, 52, assumes that the fupark could also be
divided into two, four, etc. groups of runes, but these systems must be late elaborations.
tively small. Some 150 are recorded in the Scandinavian countries, and about 30 on the Continent (1).
At an early date two developments in opposite directions set in. In Scandinavia the number of runes was drastically reduced to sixteen by the end of the eighth century (2). At the same time some new forms appeared, as can be seen from the two basic types in fig. 2.

## Danish YNDERY:*11+h: ABYFA  fupgrk hnias tbmik <br> Fic. 2

The old system with three groups of eight runes was adapted to the new total of sixteen runes : one group of six and two of five runes each. In later Icelandic literature on this subject these subdivisions are called xtt (pl. xttir; 'tribe, family ', or group of eight '?), and this has become the technical term in runological literature, just like fupark. They are sometimes distinguished by the later Icelandic names of the first rune in each group : Freys ætt, Hagals ætt, Tys xtt ( $=$ group of Freyr, Hagall, Tyr). Later on other forms were developed on the same basis, some still increasing the difficulty of reading (the Hälsinge runes) (3). But gradually the small number of characters must have proved a handicap. New runes were added; by 1300 there were runes corresponding to all letters in the Latin alphabet, and some extra symbols as well. Inscriptions with these younger runes are far more numerous than those in the
(i) O. von Frissen, Rumorna, map no. 1; H. Arntz-H. Zeiss, Runendenk mäler, 474; most of the Frisian inscriptions are in the later alphabet, cf. ibid 107 f. and P. C. J. A. Bobles, Friesland, 338 ff. On the whole runic writing seems never to have gained a sure footing on the Continent. If we leave out of account the Frisian inscriptions and those ascribed to East Germanic tribes, very little remains indeed, and that little belongs to a relatively short period (2) H
(2)-227. ANDRREN, Det yngre Runealfabets Oprindelse. Arkiv 62 (1948), 203-227.
(3) O. von Friesen, Runorna, 84, 101, 140 f., 146 , 149, 229, 231, 244
original fupark : some 350 in Denmark (1), 500 in Norway and its colonies (2), and well over 2000 in Sweden (3).
In Frisia and England the number of runes gradually increased. As new phonemes arose in the language, new runes were created. Thus we find inscriptions pointing to an alphabet with twenty-eight and even with thirty-two or thirtythree runes. As the value of the third rune had become $o$, and $c$ was the usual OE. spelling for $k$, I propose to call this expanded alphabet fuporc (as opposed to fupark for the OGmc. alphabet, and fupqrk for the shorter Northern varieties) (fig. 3).

$$
\begin{aligned}
& 12345678 \quad 910111213141516 \quad 1718192021229324
\end{aligned}
$$

$$
\begin{aligned}
& \text { fuporcgw hnijupxs tbemlyda } \\
& 252627282930313233 . \\
& \text { FRHYAK\%**M } \\
& \text { a x yeak } \bar{g} \bar{k} \mathrm{~J} \text { st } \\
& \text { Fic. } 3
\end{aligned}
$$

This type of alphabet occurs on about half a dozen Frisian inscriptions (4), and some 30 or 40 English inscriptions. Unfortunately we still lack a full and up-to-date edition of the English inscriptions; the material lies scattered in more or less accessible publications, and some items at least need a careful re-examination (5).

Most of the runes of the old fupark show no important changes
(1) L. Jacobsbn-E. Moltks, Runeindsknifter (Text), 1020 ff.
(2) O. von Frisen, Runorna, 83 (M. OLsen) : about 350 inscriptions in Norway, a few in Bohuslän and Jameland (which formerly belonged to Norway), and the rest in Ireland, the Isle of Man, Curnberland, the Orkneys, Iceland and Greenland.
(3) O. von Frissen, Runorna, 174 .
(4) H. Arntz-H. Zeiss, Runendenkmale, nos. 6, 9, 14, 20 f., 37-39. P. C. J. A. Borless, Friesland, $33^{8 \mathrm{ff} .}$
(5) The edition announced by B. Dickins and G. B. Brown (Atheneum 1920, 874; Notes and Queries (s. 12), 7, 500; Scottish Historical Review 18, 156) has not yet materialized; neither has H. Arntz's (Gesamtausgabe der alteren Runendenkmäler, Band III : Gesamtausgabe der einheimischen englischen Runrendenkmäler : cf. his Bibliographie no. 116).
in form or value. The runes fubrgwhnipstbemld require no special comment (1). The change in no. 4 (*ansu- $>$ os; hence value $a>0$ ) has been mentioned on $p$. xviii. The new form of the rune has been explained as the result of a ligature $a+n$. Runes which did not have full height in the old fupark received a full-length shaft : compare Gmc. $\mathbf{k}$ and $O E$. c (no. 6), Gmc. and OE. $\mathbf{j}$ (no. 12). No. 22 reaches the normal height in a different way: the four sides of the square are lengthened. No. 13 is not well defined: it stands for $h$ (Ruthwell allmestig, Urswick toroztredx), for $i$ (Dover $\mathbf{j} 3$ slheard) and for $g$, or rather $j$ (Thornhill III eateznne). No. 15 is also puzzling. In the oldest inscriptions it indicates final voiced $s(z)$, usually transcribed $-\mathbf{R}$, which develops into ON. -r (= Go. s). It occurs very rarely in English inscriptions. At an early date (St. Cuthbert's coffin, 698) it is used as the equivalent of Lat. $x$. The name of no. 24 was affected by $i$-mutation, and the value of the rune was changed accordingly : *opil- $>$ appel (still in Anglian texts) $>$ WS. and Ke. epel. No. 25 is derived from the a of the original fupark. Its name, OE. ac, goes back to a Gmc. *aik-, and therefore it is supposed that the new $a$-rune is a contraction of an old $a+i$. The original a has become no. 26. Its value is now $\mathscr{x}$, as in OE. ${ }^{*} a$ was palatalized to $\nsim$ in many positions. No. 27 is a $u$-rune with a subscript $i$, used to represent OE. $y$, i. e. the $i$-mutation of $u$. The origin of no. 28 is obscure. It renders the OE. sound which corresponds to Gmc. *au. Nos. 29-31 were created to distinguish various types of gutturals. Nos. 6 and 7 have names beginning with palatal gutturals : cen, giefu. No. 29 is the velar corresponding to no. 6 , no. 30 that corresponding to no. 7. No. 31, finally, seems to be used for rendering a back stop before a front vowel, as in kyniy. For no. 12 I give the form directly developed from the OGmc. type; it is the form which occurs most frequently in manuscripts. In inscriptions its place is usually taken by no. 32 , the origin of which will be discussed later. No. 33 is best known from Frisia (Westeremden), but it is also found in England. It stands for
(i) I mainly follow B. Dickins's system of transliteration; see p. lxiii for further details.
the combination st. At the end I give some variant forms : nos. $12 a$ and 24 a from the Thames sword, 16 a from the Ruthwell and Dover inscriptions, 16b from St. Cuthbert's coffin and the Thames sword, 33 a from Westeremden $B$ (Frisia).
The chronology of the English runes is still uncertain, and will probably remain so. The number of inscriptions is very small, and very few of them can be dated within narrow limits. Since a number of changes in the runes and their values and names reflect the phonetic evolution of the language, the latter affords some basis for dating the appearance of new runes. Thus the new o can only have been created after the change $a n>\bar{o}$ had reached a point where it could be felt as a phonematic change; and similarly the $y$-rune may be dated by the $i$-mutation. But the phonetic changes themselves permit of hardly more than a relative chronology : absolute dates must needs be hypothetical. W. Keller, who made a synthetic study of OE. runic chronology, proposed the following dates : the new a and o (besides $æ$, which only changed its value) : saec. V; $\mathbf{j}$ before 600 ; ea and $y$ in the period $650-670, \bar{g}$ before $67 \circ$, $k$ after that date (1). But the foundations of this chronology are quite weak. The inscriptions referred to have been assigned to different dates. When older spellings are used as points of reference, one should not forget that we have very little material by which to decide at what rate spellings (and runes) followed the changes in pronunciation. Therefore it is not surprising that some scholars propose entirely different chronologies H. Arntz e.g. believes that the OE. fuporc was extended in two movements : first to twenty-eight runes, and later to thirtythree. One movement should be dated before $800-850$, the other after (2). But we must in all probability also reckon with regional differences, even if the small number of inscriptions hardly gives a clear picture.

At the origin, and for quite a long time, the runes were essentially an epigraphical and non-utilitarian form of writing. They seem not to have been used systematically for writing down law books, poetical texts, accounts, etc., or if they were,
(I) W. Kblekr, Zur Chronologie.
(2) H. Anntz, Handbuch', 146.
no convincing proof has come down of such a usage. Their main usefulness lay in other fields than in those of communication and recording. It is usually assumed that they played a part in magic : they conveyed a special power to the inscribed object. They protected against the evil eye, they acted as love-charms and brought victory or defeat, abundant crops or disease and misfortune. It did not matter whether the inscription was read : as soon as it was carved, it became efficient. A. Bæksted has tried quite recently to disprove this assumption. He believes that runic writing may be regarded as "an actually abortive attempt at creating a cultural factor not yet required for practical purposes", without relation to "profane or religious (magic) requirements "... " The fact that this attempt took the shape of a 'home-made' alphabet instead of the simple adaption of the Latin letters, may be explained by a conscious, or unconscious, aversion in the author of the runic system towards the culture of the 'Herrenvolk', an urge to demonstrate Germanic character and independence" ( 1 ). Of course, when we consider the runes as " a luxury and a plaything", there is no need for magical or other backgrounds. At any rate the actual usage of runes and Latin letters show that they belonged to different worlds. To be sure, at a very late period the runes are used much in the same way as Latin letters for inscriptions (even in Latin), but even Baksted will point out that runes were not used for book writing (except in rare, obviously archaizing instances). There was at any rate nothing that destined runes to be written in manuscripts; there appears to have been " a radical difference of function between runic and bookhand" (2). When we find runes in manuscripts, we must conclude that the people who normally wrote Latin had become interested in them. This could only happen after the runes had left their narrow barbaric, or worse, pagan surroundings. It also meant the transfer of an epigraphical style to bookhand, but this will occur only in very rare, late instances, with obvious archaizing tendencies (e. g. the Codex Runicus). Usually the runes we meet in manuscripts retain

[^0]their special character in some measure : they may be used as an ornamental script, or for cryptograms; or else they become an object of study.

What I have called runica manuscripta covers in fact a wide range of runic writing :
(a) First of all there is the use of runes as additional letters. The latin alphabet proved a poor instrument for rendering Gmc. sounds, as a glance at the earliest OE. or OHG. texts will show. Besides various other devices (digraphs, modified letters), scribes also introduced runes to indicate sounds for which they found no satisfactory equivalents in the Latin alphabet. Many OE. manuscripts e. g. use the $p$-rune to render the dental spirant and the $w$-rune for the bilabial spirant. The English example had some influence on ON. and, though rarely, on OHG. spelling (e. g. the Hildebrandslied). As far as OE. is concerned, this usage is rather more limited than is usually assumed ( 1 ). Our information is still fragmentary; a full palaeographical and philological investigation of OE. (and ON.) usage would probably be most rewarding. Of course this sort of runic writing does not tell us much about the character of the runes. These are completely assimilated to Latin letters, and we have some reason to doubt that the scribes always knew what sort of characters they were using. But the introduction of these runes may be an important indication of the general attitude towards runic writing.
(b) A more intimate knowledge of the runes is implied by the following variety, which is also much rarer. We saw that each rune had a name, and that, instead of writing that name in full, if it happened to occur in a text, it would be sufficient to write the rune by itself. This usage is also found in OE, manuscripts. In some texts, words which were also rune-names would occur so frequently that a scribe who knew the names would feel justified to substitute the corresponding runes for them. Thus we find the runes $\mathbf{d}, \mathrm{m}$ and $\boldsymbol{\alpha}$ taking the place of the words $d x g$ (deg),

[^1]$m a n n$ (monn) and cepel (epel). Similarly the Norse m-rune is occasionally written for the word maঠr. The poet Cynewulf invented an intricate variant of this usage for signing several of his works.
(c) In some manuscripts runes are used as reference marks, e. g. for indicating the passage to which a marginal note refers, or for numbering quires. The former usage does not require any knowledge of the runes beyond that of the mere forms : the scribe could as well have used Latin letters, or yarious sorts of conventional marks. In the latter case the runes appear to have been arranged in the order of the Latin alphabet. As such runic alphabets enjoyed some popularity in the ninth, tenth and eleventh centuries, written models are probably at the origin of this usage.
(d) Runes were occasionally used for writing short notes, such as the scribe's or a reader's name, an expression of pride or gratitude at the completion of a manuscript, a remark on the text, a riddle; sometimes also for an ornamental title page. As far as the material goes, these notes are invariably in Latin. They are hardly proof of the scribe's knowledge of the runes : runic alphabets were circulated so widely that many scribes must have had access to them. With such an alphabet before them (which might at times bear misleading inscriptions: 'Arabic', 'Syriac' etc.) they could write any text. For the same purpose they also used Greek letters, and even the so-called Scythian alphabet of Aethicus Ister.
Two considerations seem to have led scribes to practise this sort of runic writing : either they were attracted by the ornamental character of runic script, which, as far as style is concerned, could compete with Roman capitals; or else the cryptic nature of the runes, which would be intelligible only to those who had a key alphabet, was the decisive factor.
(e) Fuporcs and runic alphabets. In a whole series of manuscripts, going from the end of the eighth to the early fifteenth century, we find lists of OE. runes, often with their Latin
equivalents and their names. In some the runes have retained the original fuporc order, but mostly they have been rearranged so as to follow the order of the Latin alphabet. I have reserved the term 'runic alphabets' for the latter. A number of manuscripts also contain short remarks on runic writing. In one group we find a treatise on cryptographical systems derived from the divisions of the fupore; in another various alphabets, ranging from Hebrew to runic, are briefly discussed
Comparable Scandinavian material belongs to saec. IX XVIII, cf. p. lvii.
(f) Finally, there are the so-called runic poems. There are four poems of this sort : one OE., one Norwegian, one Icelandic, one mixed ON. and Continental Germanic. The first three are made up of short stanzas, each of which deals with one rune. The OE. poem therefore has twenty-nine stanzas, the Norwegian and Icelandic only sixteen. The OE. poem is usually dated saec. XI or X ex., but it goes back to a much older original (eighth or early ninth century). The Scandinavian poems are of a later date : the Norwegian may be of the twelfth or thirteenth century the Icelandic of the fifteenth. But all three have, besides the general structure, a number of details in common, which can only point to a common source, although the character of that source may be disputed. The fourth the Abecedarium Nordmannicum, hardly deserves to be called a poem. It has occasionally been praised as the most remarkable of all four, which may explain why it has received so much attention; but it rather looks like mnemotechnical doggerel. Owing to its mixture of ON. and Continental Gmc.-the runes and their names are mainly ON., the text itself is OLG. with some admixture of OHG - it is of greater interest for the study of ninth century culture than for runology.

Groups (e) and (f) provide us with an amount of essentia evidence on the runes : they contain all we know about the names of the runes, and some welcome additional evidence on
the order and the division into three sections. All scholars who have discussed the runes in a general way, and especially those who have dealt with the problem of the origins, have referred to the material included in manuscripts. But their attitude towards this material is far from uniform; in fact it varies from unjustified scepticism to uncritical acceptance.
L. F. A. Wimmer, who laid the basis for a scientifically sound runology, did not discuss the runica manuscripta by themselves Such a treatment would hardly have fitted into the plan of his work, the first part of which discussed the origin of the runes, and the second their further evolution in Scandinavia. More pover Wimmer devoted little space to the peculiarities of the fupark; he believed that their origin could not be explained. Yet manuscript runes play some part in his work : he relied on them for the interpretation of the inscriptions on the Vadstena bracteate, the Charnay brooch and the Thames sword (1) similarly he believed the material in Vienna MS. 795 to be proof of the Goths' having known runic writing ( 2 ); etc

Still Wimmer's work also forebodes a more extensive use of these data. He saw the origin of the runes as a creative act (based, it is true, on a thorough knowledge of the Latin alphabet). The features which distinguish the runes from the Latin alphabet can only be understood if we see in them the work of one man, who proceeded in a logical and systematic way. If we accept this solution, we must conclude that the study of those special features may throw some light upon the creative act itself, and upon the cultural and ideological sphere in which it occurred. But Wimmer considered his solution of the genetic problem sufficiently well established, and preferred not to weaken his case by doubtful arguments.
The data derived from manuscripts played a much greater
(1) L. F. A. Wimmer, Runenschrift, 88 : Die bedeutung der einzelnen zeichen der runenreihe auf dem brakteaten von Vadstena (der spange von Charnay und dem Themsemesser) ist zum grössten teile klar, teils durch vergleichung mit den handschriftlichen altenglischen alphabeten, wo die bedeutung und die namen der runen hinzugefügt sind, teils und vornehmlich durch die bedeutung, welche die zeichen in den aus der alteren und mittleren eisenzeit uberlieferten inschriften selbst aufweisen.
(2) L. F. A. Wimmer, Runenschriff, 7 x .
part in S. Bugge's introduction to the edition of the Norwegian inscriptions with the older fupark ( 1 ). His explanation of the rune-names actually determined his solution of the genetic problem. He believed that the runes had originated with the Goths, who had passed them on, by different ways, to the Scandinavians and to the WGmc. tribes. Formally the runes were derived partly from the Greek, partly from the Roman alphabet. But for their names Bugge found models in Georgian and Armenian : cf. Georgian man, Armenian men ( $=$ the name of the letter $m$ ) and Gmc. *manna- ( = the name of the $m$-rune). This rather fanciful theory should not be judged too severely : the author did not live to revise this part of his text, which actually consists only of fragmentary notes.
Bugge's extensive use of manuscript material led him to subject it to a more thorough criticism than it had usually received thus far. The special study of this material had made some progress in recent years, especially at the hands of von Grienberger ( p . xlii). This we find reflected in Bugge's treatment; his text on the runic alphabets written on the Continent contains valuable suggestions for a closer investigation (2). But it looks rather as if Bugge's uncritical use of the manuscript material was felt as a warning by the next generation of runologists.
At any rate the runica manuscripta play no such part in O. von Friesen's theory (3). He supposes that Gothic slaves
(1) S. Bugge, Norges Indskrifter med de weldre Runer, Indledning.
(2) S. Bugce," Indledning, 39 : "I fere paa Fastlandet hjemmehorende Haandskrifter, som meddeler ags. Runenavie, er disse forandrede ved Paavirkning fra eller Omsatning til tyak Sprogform (hvilket tidligst synes at have fundet Sted henimod Slutningen af 8 de Aarh.). I mange af disse paa Fastlandet skrevne Haandikrifter har Runenavnene ogsaa undergaaet uvilkaarlige eller vilkaarlige Forvanskninger. Men ogsaa de i disse Haandskrifter forekommende Navneformer fortjener Opmerksombed, dels fordi nogle af dem for Runenavnene henviser til ældre ags. Sprogformer end de, der coreligger I de rent ags. Haandskrifter, dels som interessante Bidrag til Kundskab om Runernes og Runenavnenes Udbredelse og Fornandringer... Ved Sarnmenstillingen af Runenavnene i det folgende har jeg i Regelen kun nevnt rent angelsaksiske Navneformer, men ikke de Navneformer, i hvilke de ags. Former er vesentlig omdannede enten ved Indfiydelse fra heitysk Sprog eller ved Forandringer af anden Art."

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or captives, or Goths serving in the Roman army, learned the Greek alphabet. From the latter they derived an alphabet of their own, with the addition of a few Roman letters which rendered Gothic sounds more closely than Greek letters could do. For the rest von Friesen relies mainly on archaeological evidence; the manuscript material has no influence on his solution of the genetic problem, although he interprets the runenames as being in favour of a Greek rather than of a Latin model. In fact his treatment implies a further step : the special characteristics of the runes may result from a later development. von Friesen laid-the foundations for this theory when he postulated that the runes were used for magical purposes only at a later stage of their development.
It is obvious that von Friesen's attitude hardly encourages a thorough study of the runica manuscripta. The same applies to H. Pedersen, who advocates a strict adherence to Wimmer's method ( I ). He occasionally discusses the names of the runes, but only from the point of view of the possible relationship between the fupark and the Old Irish ogham.
With C. J. S. Marstrander we find again a wider use of the manuscript evidence (2). He believes that the runes go back to a Celtic prototype, and that they originated in the RhineDanube area. This implicates that the ogham and the fupark have a common origin. The two alphabets are characterized by long and significant letter-names. The Old Irish letternames form homogeneous groups (names of plants, of rivers, of saints, etc.), whilst the rune-names seem at first sight to be unconnected. Marstrander, however, explains the latter as names of gods and other mythical beings, and so has to discuss them in detail.
M. Hammarström derives the runes from one of the Alpine alphabets (3). He is not convinced by Marstrander's CeltoGermanic reconstruction: the relations between ogham and fupark belong rather to a late date. Therefore the manuscript material is of little importance.
(1) H. Prozreen, L'origine.
(2) C. J. S. Marstrander, Runene.
(3) М. Намmarstróm, Om runskriftens härkomst.
S. P. Agrell, on the other hand, depends mainly on the runenames to connect the fupark (or rather the upark: he shifts the first rune to the end of the alphabet) with the mystery religions of late Antiquity, especially with Mithraism (1). He tries to show that the magic use of the runes is a direct continuation of that esoteric system in which numbers and religious concepts are closely connected : ' 1 ' $=$ ' bull', the first being created by Ahura Mazda = the $u$-rune, the name of which is ur 'bison ' (in the ubark $u$ is the first rune). Here the manuscript evidence (our only source for the rune-names) is decisive.

With H. Arntz we find again a very extensive use of the runenames, especially in the second edition of his manual (2). Following Hammarström, Altheim and Trautmann, he lays the origin of the runes in Northern Italy. In the valleys of the Alps through which they marched on their way south, the Cimbrians and the Teutons would have found tribes of Germanic origin, who practised rock-carving much in the same way as it had been done e.g. in S. W. Sweden (Bohuslän) in the Bronze Age. These tribes had learned the North Etruscan alphabet from their neighbours, and thus it came into the hands of the invaders. These had already a sort of rudimentary ideographic script which they used for cultic purposes. After their defeats some of the survivors would have returned to their homeland, and thus an alphabet used on the southern slopes of the Alps served as a model for the fupark. Arntz even tries to reconstruct the religious and cultural circumstances of this creation, and here he has to lean heavily on the rune names (3). As a by-product of this theory there is a study on
(x) S. P. Agrele, Herkunft der Runenschrift; Runornas talmystik, etc.
(2) H. Arntz, Handbuch (first and seciond edition).
(3) "Die Beziehungen zu unserer bronzezeithich-eisenzeitlichen germanischen Religion, die wir bereits (oben S. 134 ff.) von den Sinnzeichen aus feststellten, haben der Gegenprobe in verblüfender Weise standgehalten. Wir wollen versuchen, sie mit der Behandlung der einzelnen Runeninamen zu ergänzen. Diese Behandiung fuszt auf den literarischen Quellen, den Runenliedern und Handschriften; nur in seltenen Fallen kann aus Inschriften die Gegenprobe auf unsere Schlüsse gemacht werden. Die Oberikeferung gestat uns die sprachiche Re (Handbuch ${ }^{\text {s }}, 186$ f.).
manuscript runes which we shall examine later (p. lii): Arntz's way of handling the manuscript material can hardly be termed satisfactory : every single item is made to fit into his general theory.
In his work on the relations between Scandinavia and the Continent, F. Askeberg, with whom we may end this survey, takes a stand against Arntz's (and other German scholars') approach ( 1 ). He stresses the importance of archacology as a means for exploring prehistoric periods. With von Friesen (and Bugge) he holds that runic writing was first practised among the Goths. At the same time, however, his comparative study of alphabets convinces him that Wimmer's solution is the most probable. Askeberg rightly stresses the remarkable phonematic analysis behind the fupark: the striking adaptation of the runes to OGmc. phonology proves that they cannot be the outcome of a gradual evolution or of haphazard borrowing; they must go back to an individual creation.
A. Baksted's recent solution was briefly mentioned on p. xxiii. This short survey enables us to characterize the part of the runica manuscripta in general runic studies.
First of all, there is no question of a study of the runica manuscripta as an autonomous subdivision by the side of epigraphical runes. The reason for this is obvious : manuscript runes are secondary; they imply a 'break' in the tradition, an adoption by a different world. The importance of this break, however, should not be exaggerated. The latest views on the conversion of the Germanic peoples to Christianity are a long way from the 'conversion or death' conception (2) The conversion meant a break, to be sure; but just as the old poetical style and the traditional ornamental types would be called upon to serve the new religion, so would the runes.
(1) F. Askiberg, Norden och kontinenten, 38-94.
(2) See e.g. H. Luungberg, Den nordiska religionen och kristendomen Studier ôver det nordiska religionskiftet under vikingatiden. (Nordiska texter och undersökningar xr), Stockholm, etc. x938; and W. BaETKk, Die Aufnahme des Christentums durch die Germanen. Die Welt als Geschichte 9 (1943), 143-166.

The Ruthwell cross and the great Jællinge stone are eloquent witnesses of this transition (1).
Chronological considerations may also have contributed to this neglect of the manuscript material as such. Whereas the oldest runic inscriptions were carved in the third or even in the second century A. D., the earliest date for the runica manuscripta is the late eighth century. But we must not forget that the vast majority of all runic inscriptions are also later than the eighth century.

Second, the authors we reviewed use only a fragment of the manuscript material. The situation is hardly different if we consider the whole of runic studies in the same period, and not in the first place the genetic problem. The names of the runes are the only aspect on which the inscriptions give no information. They alone can induce most runologists to refer to manuscript material (and vice versa : scholars who discuss runica manuscripta will almost automatically direct their attention to the rune-names, and neglect the forms of the runes and their order). This, however, applies only to the period covered by our brief survey. Before ca. 1875, when the study of the inscriptions had not reached its full development, there was no such restriction in the use of manuscript material. So we may expect to find that the study of the runica manuscripta is still
(1) Moreover it is not so simple to uphold a distinction between primary and secondary usage. Certain inscriptions may also be termed secondary, e.g. the Falstone inscription (M. D. Forres-B. Dickins, The Ruthwell and the Bevcastle Crosses, 34). The following remark on the distinction between genuine and 'spurious' inscriptions should be kept in mind: "De1 for det meste som en temmelig skarp tidsgrense mellem middelalder og nyere tid. Runeskrift fra for 1500 betragtes regelmassigt som xgte runernindestid. Runeskrift fra for 1500 betragtes regelmassigt som ægte runemindesmærker, der staar idirekte forhold til ældre tiders traditionele runeskik, medens
 fortidens skrift sin tilblivelse. Samtidig har man dog holdt en dor aaben til begge sider: de enkelte bevarede middelalderlige runehaandskrifter karakteriseres - uden twivl med rette - sorn en bevidst modebevagelse, altsaa som en art uxgte runeminder fra selve middelalderen, mederis adskillig folkelig runeskrift fra nyere tid, i Cyprianus-bager o.l. - medlmere tvivlsom ret - stiltiende er blevet betragtet som folkelig tradition medjrod i middelret - stiltiende er bevet berragtet som fi. Beksted, Vore yngste runeindskrifter, iri).
xxxii
for a good deal at its late nineteenth-century level. The following account of research on manuscript runes may help to show how the present situation arose

## Research on Runica Manuscripta

Our information about the earliest scholarly work on runica manuscripta is probably not complete (1). The work of some early Scandinavian runologists, like Johannes Thomas Bureus has been made the object of careful study (2), but scholars in England and on the Continent have not been so fortunate Yet it is in their works, rather than in those of Danish, Swedis and Norwegian runologists, that we have to look for the firs appearance of the material which interests us here. I do not intend to give a full survey of the use to which manuscript runes have been put, still less to sketch a history of runology in the last four centuries. The coming pages are only mean to show how the study of the runica manuscripta reached its present state, how the material was gradually collected, and why a new examination of the whole field is necessary.
In Johannes Trithemius's Polygraphia (first edition 1508) w find the earliest printed runes which go back to a manuscript
(1) References may be found in R. von Raumbr, Geschichte der germanischen Philologie; H. Paul, Geschichte der germanischen Philologie; T. Biener, Geschichte
der Germanenforschung. G. JArEE's Geschichte dor der Gemanenforschung. G. Jarke's Geschichte der Runenforschurng, which
discusses runic studies from the 16 th to the 18 th century is far fromer discusses runic studies from the 16th to the 18 th century, is far from satisfactory
for our purpose. It examines those studies mainly from the point of for our purpose. It examines those studies mainly from the point of view
of general principles, and pays little attention to the actual approach, to the material which was available and to the way in which it was used. Moreover Jarpe's text is sometimes so confused, that one can hardly disentangle his criticism from the views of the authors he studies.
(2) His Runakenslanes Larespàn (1599) was reprinted by G. Klemming, who also devoted several papers to his runological work (H. Arntz, Bibliographie, nos. 1685 ff.). Cf. also E. Svス̈roström, Johannes Bureus' arbeten om
svenska nuninskrifter. Stockholm suenska runinskrifter. Stockholm, 1936 ( Kgl . Akad. Handlingar 42,3 ).
Among the Continental scholars Among the Continental scholars Bonaventura Vulcanius would no doubt and P. H. Molhuysen, Een runendicht, Theris et lingua Getanam sive Gothorum
source ( I ). In his sixth book Trithemius prints two alphabets which he connects with the Normans and Bede. One is given under the heading De alphabeto et modo scribendi Nortmannorum mirabili eo tempore quo Galliam sua incursione uastabant. The name of Bede, who is mentioned as a source in this connexion, would be sufficient to make Trithemius's reconstruction suspicious. Actually this alphabet has nothing to do with runes (2). The origin of the second 'Norman' alphabet, however, must be runic, even if we may be sure that Bede is again mentioned erroneously : Praeter illud quod in principio huius libri sexti posuimus alphabetum Nortmannorum, etiam quod sequitur apud Bedam axaratum (sic) inuenimus, quod literis commendamus. The alphabet itself is closely related to that of the De inventione group.

Not all of those early editors were aware of the real character of their material. What they printed as runes may occasionally have had a totally different origin, whilst, on the other hand, some runic material had been circulated under such fancy names as 'Arabic' or 'Syriac'. Thus, in the Introductio in Chaldaicam linguam (1539) by Theseus Ambrosius, a canon and grammarian of Padua, we find an alphabetum Saracenorum (fol. $204^{\mathrm{v}}$ ). The names of the letters are borrowed from the 'Istrian ' or 'Thracian ' alphabet of Aethicus Ister (cf. p. 276) but the letters themselves are runes (3). A closely related
(1) H. Arntz, Bibliographie, no. 2800 lists a work by Gullaume Postel, Linguarem duodecim characteribus differentium alphabetum introductio, ac legendi modus longè facilimus.... Guillielmi Postelli Barentonii diligentia. Parisis Cf. also C. P. Burgrr Jr, Vreemde Alphabetter. Het Boek 18 (1928), 321-334. (z) Trithemius himself points out the connexion between this alphabet and the Greek numerals. It is in fact a system of secret writing in which the letters are indicated by Greek numerals : $a=\alpha, b=\beta, c=\gamma \ldots i=\theta$, $\mathrm{k}=\stackrel{\imath}{ }, 1=\iota \alpha, \mathrm{m}=\imath \boldsymbol{\imath} \ldots \mathrm{t}=\imath \theta, \mathrm{v}=\kappa, \mathrm{x}=\kappa \alpha, \mathrm{y}=\kappa \beta, \mathrm{z}=\kappa \gamma, \mathrm{w}=\kappa \delta(\mathrm{t})$. Reprinted by G. Hickes, Thesaurus, Grammatica Franco-Theotisca, 3, Tabella; cf. also the cryptogram in Brussels MS. 9565-9566, mentioned on p. 97. (3) On fol. $206{ }^{r}$ Ambrosius also gives a 'Gothic' alphabet. It goes back ocreery of Nor Norse fupgrk and had been cornmunicated to himm by the secretary of Johannes Magnus, the last Catholic bishop of Uppsala. It is (554) rad in his brother Ouns Masus's Historia de gentibues septentrionalitus (1555), cf. O. von Frisese, Runoma, 240 f, (with facsimile); E Nestle, Ein
aracen alphabet' occurs in a collection of calligraphical habets by the Swiss schoolmaster Urbanus Wyss (1549) (I) Hickes seems to have been the first to identify these char cters as runes. On one of the plates in his Thesaurus he 4ints such an alphabet with a remarkable peculiarity : the mines of the letters are in Greek script. Unfortunately he ges not give any details on his source (2). Wyss and Ambrosius fobably had their alphabet from Mandeville (p. 278).
4The first author of real importance for the study of the runica panuscripta was Wolfgang Lazius, the Austrian physician, istorian and folklore student. The ninth book of his work De gentium aliquot migrationibus (1555) is devoted to the Marcotanni. By a curious confusion, Lazius connects them with he Mercians : these appear as Martii, gens Martiorum, their ing Penda is rex Martiorum; their name is related to that of Oitmarschen, hoc est Teutonici Mertii (3). To prove that the Vormans or Danes are descendants of these Marcomanni, he puotes a brief text in which the runes are described as the letters ased by the Marcomanni, quos nos Nordmannos vocamus. Then follows a runic alphabet with the names of the runes. It greaks off after $\mathbf{p}$, either because the rest was missing in the codex used by Lazius, or because it had become illegible cf. p. 297 f.).
A complete version of Lazius's alphabet was discovered
Angeblich gotisches Alphabet von 1539. Z.f.d.Ph. 32 (1900), 140 f.; At Gkbynddr, Ein angeblich gotisches Alphabet. Ibid., 564-566; F. Burg, Dis (1) Libellus valde doctus, elegans, \&o Zo f. d. Ph. 36 (1904), 124 f. Ifterarum genera complectens, fol. Niiij?: facsimile edition by scribendarum iterarum genera complectens, fol. Niiijr; facsimile edition by H. Kienzue,
Basel r927. Another edition of the B. Krutrwacrn, Laat-Middeleevrosche work appeared in Antwerp in 1576 Pini note 3 .
(2) Grammaticae Islandicae Rudimenta, Tabella III. Collections of alphabet which may have led to this confusion will be mentioned in of alphabet Munich MS. 14436 and Arsenal MS. 1169.
Baden (first mentioned in is is said to have founded the town of Offenburg in Baden (first mentioned in the twelfth century). This is probably not the only gise where Offa I, legendary king of the Continental Angles (latter half of the Th century ?) is mixed up with Offa II, king of the Mercians ( $757-796$ ), cf. F. Klararr, Beozulf, p. 197; Lazius's toponymical fantasy is of course entirely
in the style of his time.
some fifty years later by Melchior Goldast (cf. p. 303 ff.). He found it part of a treatise on the history of the alphabet, to which he gave the not very appropiate title De inventione linguarum ab Hebraea usque ad Theodiscam, ©i notis antiquis and which he edited in his Alamannicarum rerum scriptores aliquot vetusti (1606). He attributed the treatise to Hrabanus Maurus, on what grounds is unknown. The paragraph on the runes is almost identical with that in Lazius; there can be no doubt that the manuscripts they used were closely related. Goldast's text was reprinted in Colvenerius's edition of Hrabanus Maurus's Opera (1626) and again by Migne in his Patrologia Latina.
Whilst historians and philologists were digging up such bits of runic material on the Continent (and also in England (1)), led by chance rather than by systematical research, and without knowing very well what to do with this material, Scandinavian scholars were laying the foundations for an autonomous study of the runes. In their immediate surroundings they found numerous runic inscriptions; newly discovered inscriptions were being communicated to them all the time; they could rely on a tradition, which, by however tortuous ways, went back to the runic age. In some remote regions runes were still being used; antiquarian interests led even to a sporadic revival (2). The runic inscriptions, however, were not easily deciphered; therefore runologists were not averse to include manuscript runes in their material.
We find a good survey of the material collected down to 1636 in Olaus Wormius's Danica literatura antiquissima. In his list of Auctores quorum testimoniis ope usi sumus we meet Trithemius, Lazius and Goldast, but also Arild Huitfeld, who discovered runes in the Royal Danish archives; Arngrim Jónsson (Arngrimus Jonas), who collected some items ex... membranis vetustissimis, etc. Wormius has a whole chapter on the figurat
(1) Little material on this activity in England seems to be available, to judge from E. N. Adasss, Old English Scholarship in England from x566-18oo. N Haven, etc. 1917 (Yale Studies in English 55). In the manuscript notes of sixteenth and seventeenth century hist
more data could no doubt be gathered.
(2) CE en C.S.Poreven Dend

Litteratur fra Folkevandringstider indtil Holberg, 56r f.; O. von Friesen, Rumorna, 240 ff.

Lerarum Danicarum e variis manuscriptis desumptae © ol $^{\circ}$ amicis onmunicatae; it contains int. al. an alphabet e codici M.S. bliothecae Florentinae ad D. Laurentium, qui alphabeta divergrum linguarum sexaginta sex continet. In fact Wormius does ht make a distinction between manuscript and epigraphical gaes. He even prints the text of the Bjarkamál and of Egill's
Iofudlausn with runes. On the whole Hofuठlausn with runes. On the whole, and for obvious reasons, formius's work is of greater importance for the study of the forse runica manuscripta. The same holds for the material ollected e.g. by Jón Olafsson, whose Runologia (first written 1732, but revised in 1752) contains some excerpts from bider sources, int. al. from a Flatey manuscript (x). Some of this material, however, will have to be used for solving problems 17 the present study (cf. p. 165 ff .).
To the activity of George Hickes and Humphrey Wanley we owe one of the most important collections of runica manuscripta ever made (2). The first Anglo-Saxon scholars had been interested mainly in religious, legal and historical texts; now the field was widened to include all antiquities. Runic inscriptions in England were few, and it would take a long time before they could be interpreted in a satisfactory way. Therefore it is hardly surprising that the grammarian Hickes turned to poanuscript material which, as far as it was preserved in fuporc or alphabet order (as happened in most cases); could be easily studied. In his task he received invaluable assistance from Wanley, whose catalogue of Old and Middle English texts in the British Isles has not been superseded in two and a half centuries. Wanley recorded fourteen manuscripts containing funes. Not all items listed by him are equally valuable, but nearly all the important items known nowadays are there. For two very remarkable bits, Wanley and Hickes are our only quthorities : for the runic collection in Cotton MS. Galba A 2, and for the Rune Poem in Cotton MS. Otho B ro; both manucripts are now lost, and we know them only through Hickes's
(1) I. Lindquist, En skimnhandskrift frain Flatey.

Funernes Brug. and especially A. Breksted, Islands Ruf. also P. G. Thorsen
(2) G. Hrckes, Thesaurus.
H. Wanley, Catalogus.
facsimiles. Hickes also facsimiled other material and reproduced some from Trithemius, Lazius, Goldast and others.
Apart from this, the eighteenth century would bring few additions to the stock of runica manuscripta. Only Eccardus's edition of a page with alphabets (two or three of which are runic) from Munich MS. 14436, and the runes from Paris MS. Grec 375 printed by Montfaucon must be mentioned here (1).

The systematic search for historical and literary texts begun in the early nineteenth century led to the discovery of a truly astounding amount of runica manuscripta. At the same time the impetus given to Germanic studies by Rasmus Rask, Jacob Grimm and others directed the attention of Continental scholars to runology. But hardly any inscriptions had as yet been found on the Continent, and so scholars there turned mostly to the literary sources (Tacitus, Venantius Fortunatus, Egill) and to manuscript material. Moreover the study of the epigraphical runes was still unsettled : the shorter Norse fupark was usually believed to be the original alphabet. This made it difficult for Continental scholars to find their way among the often contradictory opinions.
As a first token of this renewed interest there is Wilhelm Grimm's remarkable work Ueber deutsche Runen (1821). On a variety of questions Grimm held to the opinions of his time : the shorter fupark he considered older than the original fupark with twenty-four runes; the Kylver stone had 'Anglo-Saxon runes', etc. But the sections on manuscript runes still deserve our attention : they contain suggestions by which later scholars might have profited (2).

Besides the manuscript runes which he knew through Lazius, Goldast, Montfaucon, Wormius and Rask, Grimm discussed
(1) J. G. Eccardus, De origine Germanonum, tab. XIV, 188.

B DE Montenucon Polueograthia graeca, 292 f
(2) I believe W. Grimm's significance as a runologist lies here rather than in his vindication of the existence of German runes, which H. ARNTZ, Wilhelm Grimm und die deutschen Runen, praises so highly. When Grumm wrote his works, none of the German inscriptions edited by H. Arntz and H. Zeiss (Runendenkmäler) had been discovered; and not one of the runic alphabets found in German manuscripts seems to have anything to do with runic writing as known from German inscriptions.
fupores and runic alphabets from Vienna MSS. 64 (now $\mathrm{x}_{7} 6 \mathrm{r}$ ), 277 (751) and 828 (1609); St. Gall MSS. 270 and 878, Munich MS. 19410 (his " Tegernsee "), etc. He was not satisfied with copying the information given by his predecessors. In a number of cases he offered valuable suggestions, e. g. on the manuscripts which Lazius and Goldast may have used (1). Whenever the possibility existed, he checked his sources or had them checked by others. Thus his brother Jacob made a copy of the three Vienna manuscripts. He had some notion of the filiation of runic knowledge on the Continent : he stated that the runes of St. Gall MS. 270 are of English origin, and so are those of St. Gall MS. 878; the latter, however, were copied by an Alemannic scribe who understood little, if anything at all, of what he was writing (2). To his text Grimm added a set of eleven plates, the first three of which contain runica manuscripta in facsimile.
Grimm's work came at the right moment to direct the attention of philologists and historians, who were searching libraries and archives, to manuscript runes which they might otherwise have overlooked. New discoveries were communicated to Grimm; if possible he secured facsimiles through his correspondents. Pertz and Kopitar found a fourth manuscript in Vienna, "cod. membr. Salisb. no. 40 olim Salisb. LXXI", the so-called Alcuin manuscript (Nationalbibliothek MS. 795). Pertz also sent a copy of Vatican MS. Regin. 338, Graff one of Paris MS. 5239, Docen one of Munich MS. r9410. In St. Gall von Arx made new attempts to read part of MS. 878, etc. Only seven years after his first work appeared Grimm published Zur Litteratur der Runen, with a number of new items, corrections to the older material, and six facsimiles.

One is struck by the relative degree of finality Grimm reached. His exposition is of course influenced by the opinions of his time, but the descriptive portions of his works have hardly been improved upon during the next century or more. One has only to read his discussion of Yienna MS. 795 to realize how carefully he probed the evidence before him. His material
(1) W. Grimm, Ueber deutsche Runen, 80; 8I footnote.
(2) W. Grmm, Ueber deutsche Runen, 120 ff., 147 .
was reprinted some forty years later by George Stephens, and since the latter's collection has become the main source of most modern authors, we may safely say that the study of an important part of the material had reached its present level more than a century ago.
J. M. Kemble's On Anglo-Saxon Runes (1840) is closely lated to Grimm's works. Kemble wanted to make Grimm's results accessible to his countrymen; at the same time he hoped to furnish Grimm with new matter for a second edition of his book. The importance of Kemble's contribution lies rather in the field of the English inscriptions than in that of the manuscript runes ( 1 ). To the alphabets collected by Grimm he only added tha. of Harley MS. 3017. But he also extended the notion of runica manuscripta to include non-alphabetic material Grimm had concentrated on fuparks and runic alphabets. Only incidentally did he refer to the use of a runic symbol in Wessobrunn Prayer, or to the signature of the scribe Ercenfrit. Kemble examined this material systematically, and this enabled him to decipher Cynewulf's runic signatures in Elene, Andreas and Christ

Kemble's appeal to his countrymen was not very successful, at least not immediately. Only a quarter of a century later one of his countrymen would contribute materially to the study of the runica manuscripta, but that contribution was to be decisive.

Meanwhile a long series of editions of manuscript runes set , each devoted to one or more newly discovered items, F. J. Mone printed runes from Brussels MS. $93^{11-93^{19}}$ (p. 63 ff ); C. Greith from Vatican MS. Regin. 338 (p. 237 ff.), which ertz had already communicated to Grimm; G. Phillips from Izburg MS. St. Peter a. IX. 32 (then X. 28; p. 113 ft.); Hattemer from several St. Gall manuscripts (pp. 74, 90 etc.); Sir Thomas Phillipps from a manuscript in his possession (p. 227 fr.); H. F. Massmann from Vienna and Rome manu cripts (pp. 106 ff. etc.); K. Bartsch from Heidelberg MS. Salem 9.39 (p. 305 ff.); F. Losch from Berne MS. 207 (p. 174 ff.), etc. A somewhat more extensive collection is found in F. J.
(1) B. Dickins, 7. M. Kemble and Old English Scholarship. Proceedings (it. Acad. 25 (1939), 5 1-84.

Guth's Runen-Fudark (1857), a work which most students in 6r field seem to have overlooked. Yet it contains interesting formation on a number of Munich codices (MSS. Lat. 6250, 372, 6291, 13067). Some authors discussed manuscript paterial in a more general way, e. g. A. Kirchhoff and J. ZaSer ( 1 ). The most important contribution of this sort seems We R. von Liliencron's criticism of Kirchhoff's work (2) gn Liliencron is the first to stress the secondary character of te manuscript runes. He also makes a sharp distinction tween fuparks and runic alphabets. He gives a list of the Tharks and alphabets edited down to his day, to which he ppends some sound remarks on the value of this material. e points out the danger of ignoring the relationship between fferent versions of the same source. This can only give a rong idea of the amount of evidence actually available. That e was right in stressing this point appears from his own survey. For comparative purposes Hickes had arranged some fuporcs the order of the Latin alphabet (3); von Liliencron believed ese runic alphabets were also found in the manuscripts (but e rejected them because their evidence had no value). Errors this kind happened more often than one would expect. fistakes in press-marks gave rise to fictitious doublets, as e.g. otton MSS. Titus D 18 and Tiberius D 18 (4). Very few uurces were examined more than once, and any mistake made the first editor had all chances to find its way into later ablications. Thus a misprint in an edition of 1866 can still found in 1944 (5).
The only edition of all fuparks and runic alphabets is that F. Stephens. He took up the task outlined by Kemble th tireless zeal. He planned a complete edition of all runic iscriptions, and by way of introduction he reprinted all fuparks
(v) A. Kirchioff, Das gothische Runenalphabet.
J. Zacher, Das gothische Alphabet.
(9) R. von Liliencron, Zur Runenlehre (with K. Mullenhofe)
(3) E.g. that of Cotton MS. Domitian A9: G. Hickes, Thesaurus, GramIficae Islandicae Rudimenta, Tab. II, 3 .
(4) G. StBphens, Monuments I, yo7, I12 f. ${ }^{\text {(5) }}$ ( $=$ Munich MS. lat. 14436) H. Arstz, Runen und Runennamen, 177 f. (footnote), 193.
and alphabets edited thus far, giving additions and corrections in the later volumes of his work ( 1 ). But his enthusiasm could not make up for his lack of philological training, and his ideological approach did not improve the situation (2). Therefore his commentaries have now only historical value. His lists of runes and rune-names, however, have become the main collection of material for students of runica manuscripta.

We may end the survey of this older period as characterized on p. xxxviii with P. G. Thorsen's Om Runernes Brug til Skrift udenfor det monumentale. But for our subject this work with the promising title proves rather disappointing. It was intended as an introduction to the facsimile edition of the Codex Runicu or Wormianus, Copenhagen MS. AM. 28, $8^{\circ}$ ). The author hardly ever leaves his northern sphere; moreover he depends more on literary sources than on actual manuscript runes. He contends that runes were used extensively for all sorts of com munications and notations, going so far as to declare the epiraphical usage secondary. Coming three years after the first ast of Wimmer's fundamental work (3), Thorsen's attempt to direct the attention to the non-epigraphic runes was bound to be unsuccessful. From now on general studies will concentrate more and more on the rune-names, as our next author clearly demonstrates.
To T. von Grienberger we owe several important studies with manuscript runes as a starting-point. He was the first who examined that material as a whole. But his attention went almost exclusively to the names of the runes. Only ly did he discus one or other type of rune. The value of his work is also limited by the fact that, with rare exceptions, he did not examine the sources himself, but simply buil on the foundations laid by others.
His first study is devoted to the Gothic material in Vienna MS. 795; the names of the Gothic letters, for which this codex
(1) G. Stephens, Monuments I, 100 f.; II, 829 ff., III, ift
(2) Cf. L. F. A. Wimmer's criticism: De aldste nordiske Runeindskrifter Med sarligt Hensyn til Prof. Stephens' Værk, etc. Aarbøger 2 (1867), 1-64 Aarboger 9 (1874), $1-270$.
our only source, were (and are still mostly) believed to be rrectly connected with the rune-names (hence "germanische mennamen" in the title) (r). The analysis of the manuWhpt evidence is very minute, and most promising for the pthor's further investigations. Unfortunately von Grien Serger does not seem to have noticed Sickel's fundamental tudy, and this neglect necessarily affects the value of his work 8f. p. 54 ff.).
The second article contains a discussion of the ON. runeames (2). Here von Grienberger depends entirely on reprolactions made by others : for the Abecedarium Nordmannicum 9 Hattemer, Grimm and Piper; for Leyden MS. Voss. Lat. $3,4^{\circ}$ on a drawing by H . Kern, etc. He hardly discusses the lace of the runes in the manuscripts, and still less their cultural ackground. As the title indicates, all attention is focussed n the names of the runes. Only $\mathbf{R}$ receives a more thorough reatment (3). For the rest the genetic point of view remains ominant : the discussion of the material is immediately followed " "Zur ableitung der runen" (4)
The third paper is by far the most interesting for our subject Ifter having examined the Gothic and the Old Norse material, on Grienberger now turns to the Old English fuporcs and the o-called Hrabanic alphabets (5). The first group is repreented by seven items, of which two are known only through lickes's facsimiles. von Grienberger does not seem to have foticed that two of his fuporcs must at least partly go back to 1 common source (St. Gall MS. 270 and Vatican MS. Urbin. 290); a third manuscript belonging to the same group had been nalysed by E. Steinmeyer some years before (Trier MS. 2. III.I3) and a fourth had been edited (with a facsimile of the unic material) more than thirty years before (Salzburg MS. a X. 32). Moreover his nos. 1 and 2 are so similar, that one right a priori suppose them to be related. The rune-names (i) T. von Grienaerger, Die germanischen runennamen. I. Die gothischen men.
(2) T. von Grienberger, Beitrage zur nunenlehre, yoi ff.
(3) T. Von Guienbrrger, Beiträge zur runenlehre, 112 f .
(4) T. von Grienberger, Beitrage zur runeniehre, 114 ff .
(5) T. von Grienberger, Die angelsächsischen runenreihen, iff.
are again the most important, if not the only criterion, for classifying the manuscripts; the main purpose seems again to lie in the reconstruction of the original forms of those names; runic forms are discussed only occasionally. With these limitations in mind, however, we can still use von Grienberger's study for a first general orientation.
The way in which the runic alphabets are treated is less satisfactory ( r . Doublets are included without the slightest suspicion of their being identical (Cotton MSS. Titus D 18 and Tiberius D. 18). von Grienberger lists 15 alphabets. After comparing the names of the runes he concludes that they go back to two " urredactionen", one represented by six alphabets, the other by three. The remaining five would be intermediate forms. Actually there are seven in the first group, whilst the three which von Grienberger also believes to belong together are in all probability unrelated. The transmission of runic lore to the Continent is reduced to a very simple formula: Bede $>$ Alcuin $>$ Hrabanus Maurus. From now on we shall meet this formula again and again; some authors will even try to connect all Continental runica manuscripta with this channel. Since von Grienberger's studies were to become the starting point for most work in runica manuscripta during the next fifty years, it may be worth while to examine the factors which influenced the value of his work in a negative way. The manuscript material was studied only, or mainly, for the evidence on the rune-names which it was alone to provide. This caused all other aspects to be neglected. The criticism of the sources was mostly insufficient. The forms of the runes, their peculiarities, the manuscript environment were ignored. Yet they would have afforded a broader and on the whole safer basis for the classification of the material than lists of rune-names. By referring only to the latter, some important runic alphabets (and fuparks) without rune-names were completely disregarded. Moreover the rune-names are no doubt the most vulnerable part of the manuscript tradition : scribes were easily tempted to adapt them to their native dialect, or at least to copy them less
(土) T. von Gribnargerr, Die angelsächsischen runenreihen, 23 ff.
tefully than the runes, which they had to imitate stroke it stroke. Trifling details in the form of one or other rune e often of greater value than a similarity of names which may sily result from independent adaptations. Insufficient critiph also created fictitious manuscripts and perpetuated rea mgs which would not have stood a renewed examination of © manuscripts. The blame does not attach only or mainly 4von Grienberger. The same objections may be raised ainst most authors who made comparative studies of manuthipt runes.
As a matter of fact von Grienberger's papers ushered in friod of stagnation in the study of the runica manuscripta The first half of the twentieth century will bring in no more Gan half a dozen new discoveries. The general discussion It be restricted to an amplification of the results obtained nus far. It will hardly develop by a more minute study of te sources.
What progress could still be made was demonstrated by - Hempl, although he worked on a very limited material. Iis critical analysis of the fuporc to which the OE. Rune Poem Tras attached is a model of careful weighing of the evidence. The OE. poem on the fuporc has come down to us only as a 4osimile in Hickes's Thesaurus, the manuscript having perished 17 the fire of the Cottonian library. Hempl suspected that ee facsimile gave more than the original. He was actually ble to prove that part of Hickes's facsimile had been borrowed fiom Cotton MS. Domitian A 9 ( 1 ). For the first time aanuscript runes were subjected to a detailed investigation.
(i) G. Hempl, Hickes's Additions, 14 r : " The Runic Poem can be appealed Tas evidence on runic matters only in regard of the right-hand forms (and them. The remaining nas) of those that have corresponding verses in the sem. The remaining runes and the phonological spellings added by Hickes Give only so much value as they have in the Cot. Domit. manuscript. For the The reasons, the alphabet constructed by Hickes from the runes given by Sh as appearing in the Runic Poem, and published in his Thesaurus (....) Tis no greater value. In other words, I have removed from the Runic Poem
fof the rubbish that became attached to it in the process of its trens ilasion to us, and which has been preserved, with more or less care, by thos tho have edited the poem ".

The conclusions of Hempl's study should have been a warning to scholars using this material. It might also have been an encouraging hint to continue work in this direction, the only which promised lasting results. But we can only regret that Hempl's example was hardly followed by other scholars. The Old-English Futhorcs and Alphabets, which Hempl announced in his paper, seem never to have been completed.
In the study of the runica manuscripta the runic poems have mostly had a privileged position. Their texts were repeatedly examined with care, especially the OE. Rune Poem and the Abecedarium Nordmannicum. W. Grimm was the first to edit two of these poems together (1). All four were printed, with introductions and full notes by B. Dickins (2).
Some efforts were made to extend Hempl's criticism to other materials, but only on a small scale. C. L. Wrenn endeavoured to ascertain the real value of the OE. material (3). He was obviously right when he pointed out that most runologists ignored this aspect of the matter. To the general acceptance of Stephens's collection as a basis for further work in this field, Wrenn opposed a sound if rather exaggerated scepticism. He came to the conclusion that Cotton MS. Domitian A 9 was the best authority, but " a very poor and uncertain best"; which he dated as late as the twelfth century. C. E. Wright, however, showed that Wrenn's critical evaluation was not quite adequate : his dating and analysis of Domitian A 9 had to be corrected on a number of important points (4). Wright's own brief account of the manuscript is a model of a thorough; careful and competent analysis of manuscript runic material.

In the meantime some new material had been edited, but it received little attention. T. Längin edited three runic extracts from Reichenau manuscripts (now in Karlsruhe), G.C. van Langenhove gave a new edition of the fuporc in Brussels MS.
(1) W. Grimm, Ueber deutsche Runen, 217 ff., 246 E (2) B. Dickins, Rumic and Heroic Poems, 1-34 C. L. Wrenn, Late Old English Rume-Names (4) C. E. Wriger, A Postscript.

41-9319 (1), and C. Selmer tried to explain a runic inscription found in Munich MS. 13067 (2).
4. Harder made a bold attempt to solve a number of difficult ms of rune-names by a universal rule (3). In a whole series fmanuscripts the rune-names appear in forms which differ gre or less from the original OE. forms. These forms are mmonly explained as due to misreading, or as reflecting the Tibe's native dialect. Harder, however, believed that these Ims were conscious and methodical distortions invented by surely monks who wanted to amuse themselves at the expense their readers. He removed the letters he considered supergrous and out of them he reconstructed short messages to the dader : a warning, the name of the scribe, etc., e. g. ikh iuuih Whe "ich möge euch necken". Harder has failed to convince bost scholars, and for obvious reasons. He started from phabets the runic character of which was more than doubtful : 4e Norma (?) alphabet in Vatican MS. Regin. 338, and Nemvus's alphabet in Cotton MS. Titus D 18. By including these Whabets in his collection, Stephens hardly meant to pass them if as runes (4). Of course such alphabets lent themselves ery well to Harder's procedure and yielded appropriate warngigs to the reader. But Harder felt also obliged to 'correct ' lich perfectly justifiable forms as aac, iis, raad, (in another 4phabet of the same Vatican manuscript), birca, caon, feu, naut, 21. (Munich MS. Lat. 14436), which are extremely interesting fth for OE. and ON. phonology and for runology. Moreover \$e pattern which Harder reconstructed was not uniform. In ne case the form hagale was corrected to hagel, in another to agal. Of course this opens the way to the most arbitrary and anciful interpretations.
Harder's study could have served to demonstrate one point, 4z, this : what is usually grouped together as ' runic alphabets '
(I) T. LXNGIN, Altalemannische Sprachquellen, 699 ff.
G. C. van Langenhove, Brusseliche Runen.
(2) C. SElmer, The Runic Inscription of Codex: Latinus Monacensis 13067. P.M.L.A. 53 (1938), 645-655.
(3) H. Harder, Zur Frage der hrabanischen Alphabete.
(4) G. Sterpens, Monuments I, 107, states that Vatican MS. Regin. 338 to the cipher or fanciful class"
or 'Hrabanic alphabets' is in fact a medley, the elements of which belong to various places and different periods.
G. Baesecke has repeatedly undertaken to describe the manuscript runes in their relation to their cultural background In one paper he sets out from the Abecedarium Nordmannicum to explore the whole field of runica manuscripta (1). He divest the poem of the halo with which previous generations ha surrounded it. They had usually regarded it as the most remarkable of all four runic poems, as the one which cam closest to the old Germanic spirit. Baesecke does not hesitat to call it doggerel. He believes it to be adapted from a Danish original for use in ninth century German schools. In the St. Gall codex where it is preserved, it comes after grammatical extracts from Isidore's Etymologiae; the runes in Brussels codex no. 155 would be in a similar situation (2). Baesecke assume that runic studies played some part in eighth and ninth century monastic schools. He elaborates the sketch of the transmission of runic lore given by von Grienberger. He tries to broaden the foundations laid by his predecessor: he classifies the man uscripts with runic alphabets according to the accompanyin ext. He distinguishes a longer and a shorter version of th De inventione; he even eliminates one of von Grienberger' doublets (Cotton MS. Tiberius D 18). But he connects a alphabets with one channel of transmission. Thus Munich MS 19410 and Berne MS. 207 are still said to belong to the D inventione tradition. All runic alphabets that have come to his notice would be due to one of two scholars, the first of whom retained many OE. forms, whilst the other freely adapted the rune-names to OHG. phonology. The latter scholar whose purpose it was to create a runic alphabet fit to be taugh Gepols, would have been no other than Hrabanu Maurus.
Baesecke's reconstruction has obviously benefited by
(1) G. Baesscks, Das Abecedarium Nordmannicum
(2) This is one of several inaccuracies in Barsserg's paper : Brussels MS 931 -93x9 (Baesscke quotes the old number in Mancyas's Inventaire) contsin no grami. did

Ih in OHG. glosses and literature, in which the author 4i had no small part. But some doubt is permitted as to For the picture which he draws without hesitation really Wwith the facts. One cannot avoid feeling that his reconHon is at times quite remote from the manuscript evi(1). The progress lies much more in the general picture Ya the discussion of the material itself, or in the integration 3 material into the picture. The evaluation of the Abece n. Nordmannicum is a laudable exception. Baesecke Yes special credit for having realized that the study of the Wscript runes not only interests runologists, but also Whts of cultural history. On the whole, however, he seds too boldly. He does not doubt Hrabanus Maurus's Stship of De inventione litterarum, although our only authorWhis is a not altogether trustworthy Goldast. He feels quite that this same Hrabanus Maurus promoted the study of Sin his schools, and this much in the same frame of mind sixteenth century polyhistor or even a nineteenth century Dlogist. And yet Hrabanus had no " offene Teilnahme an antiken Welt", and his eulogist Hruodolf mentions no tific activity of his master except theology (z). My main etion against the general trend here embodied by Baesecke 8: it looses sight of the relative importance of such elements Gnic alphabets and short scraps of German with on the e very moderate literary pretentions (3). One has only to Fover the leaves of Colvenerius's edition of Hrabanus's Glete works to understand how small a part the compiling 8fin-German glosses and of a short tract on the alphabet have played in the activity of this Carolingian scholar

The following quotation is typical : "Dasz der kürzere Text der RunenThung aus ags. Gelehrsamkeit stamme, vermuteten wir aus dem runstafas Gem Gotenzusatz. Aus den Handschriften laszt es sich nicht erweisen : Ke zu den am reinsten angelsüchsischen Fassungen ( $13-15$ ) fehlt diese thang. Sicher aber ist, dasz sie mit ihrem runstafas nicht zu der fortspttenen Deutach Gy Giparecerp's survey) G Grenbergerts survey).
The
The most striking instances are probably to be found in his Vor- und geschichte.
provided the tract in which the runes are mentioned shou really be attributed to him).
The discussion of two recent additions to the stock of runic manuscripta may help us to characterize the level attained thu far. In 194r Miss E. Raucq edited the runic material fro Brussels MS. 9565-9566 for the first time, and compared with that in the better known St. Gall MS. 270 (1). Her pap shows a real effort to discover the origin of this manuscrip tradition, but the attempt was bound to fall short of its ain For one thing, Miss Raucq depended almost entirely on th names of the runes, although she had at her disposal a Lati text besides the fuporc. In the manuscript she overlooke some important details, which might have helped her to tra its origin and elucidate its cultural background. Finally, s was not aware of the existence of three more, closely relat versions, two of which had been edited before.

The latest discovery which led to a general discussion manuscript runes is that of a runic alphabet in a fragme belonging to the Munich antiquary A. Weinmüller (2). I. Plassmann examined this fragment, and also a Paris manuscri containing a related version (MS. 5239); W. Krause gave runological discussion covering other material as well. Neith of the two parts is really satisfactory. Plassmann's analysis fairly accurate, but the Paris codex is at least a century old than the date (saec. XI ex./XII in.) given by him. He belie it to be the work of an Anglo-Saxon scribe, on very w grounds, as we shall see (p. 330). Krause's discussion is close related to Baesecke's. Like Baesecke, Krause distinguishes t versions of the De inventione, one of which he ascribes to $\mathrm{H}_{\mathrm{t}}$ banus Maurus. Alcuin himself would have provided the $a$ of this treatise, for the older version, represented by $\mathrm{Pa}_{2}$ MS. 5239 and Cotton MS. Titus D 18, would have originat in Alcuin's environment. Alcuin may ultimately have own his information to Bede, whose pupil he was (Alcuin was bo about 735 ; Bede died in that year). Such spiritual genealogi
(1) E. Ravce, Brüsseler Runen, y ff.
(2) I. O. Plassmans-W. Krause, Die Hrabanische Runemreihe.
aich Baesecke also attaches great importance ( I ), may hold If for theological, exegetical, grammatical and mathematica ies. Even then they are only general statements, which Inot, and cannot, apply to every single item of a scholar's lectual equipment. The transmission of such extra-curric material as the runes must evidently have been, may have wed far more complicated or obscure routes. Krause tends onnect all Continental runic alphabets with Hrabanus rus, even St. Gall MS. 270 (2). He seems hardly to have Idered the possibility of other scholars, besides Alcuin, orting runes to the Continent, and of other scholars, besides banus, changing the fuporc order to that of the Latin alpet. Such a trend can only lead to a fallacious picture of 4 actually happened.
Trally we come to two important general studies on runica fuscripta published during the last war. They differ widely fieir aims and in their ways of dealing with the material, therefore it is good to examine their respective preferences drawbacks.
hiss J. Blomfield is in the first place concerned with the posed relationship between the Gothic alphabet and the es (3). The names of the Gothic letters found in Vienna .795 are usually considered as the direct descendants of the thic names of the runes. Miss Blomfield stresses the funaental difference between bookhand and runic writing; only be exceptionally may runes have found their way into manupts. Therefore one may a priori suppose that runes played great part, if any, in the formation of the Gothic alphabet. to the so-called Gothic rune-names, these " have no claim tepresent runic nomenclature current among the Goths IV. They do represent alphabet lore current among some finanic people in VIII; and their connection with a dialect 4) G. Barsecke, Die Karlische Renaissance, 216.
4) W. Krause, Die Hrabanische Runemreihe,
babetstudien begann, scheint Runenreihe, 187: "Als Hraban seine forks in ein Runen-ABC noch nicht abgeschlossen gewesen zu suäshen Trnehr hat sich Hraban selbst offenbar um diese Umsetzung ebenfalls Müht, möglicherweise in mehreren Ansätzen ".
which was then, as far as we know, obsolete makes it probable that they are riddled with antiquarian confusions. As a source of runic nomenclature they are worthless. Yet there are obvious points of contact. If it were possible to analyse the overlay of sophistication, some relation might be established between these names and rune-names" ( I ). By way of illustration she examines "the transformation of the runic system in the period VIII-XII" (2). She again stresses the distance between the alphabetic lore found in manuscripts and the original system of runic writing, which she believes to have been dominated by religious and magical considerations.
Unfortunately this real progress in the general approach is not accompanied by a closer study of the sources themselves. Stephens and von Grienberger remain the principal authorities, and the limitations of their works are also felt here. Of course we could hardly expect the author to discuss all versions in detail in these few pages-war-time conditions would anyway have prevented her from doing so--but in some cases her general appreciations tend to become too severe, as in the case of Cotton MS. Titus D. 18. This manuscript is said to be "of little value since alphabet i is that of Paris MS. 5239 , alphabet ii is the Nemnivus series, while the runes of alphabet iii, not elsewhere found, are of the Norse type" (3). Actually the liber alphabetarius which forms the first part of the Cotton codex is one of the most interesting products of the alphabetic studies to which Miss Blomfield attaches so great importance. Still, I owe to her work a number of valuable suggestions, by which this study has undoubtedly benefited.
H. Arntz's work is a bolder undertaking. In the first part of this introduction I have briefly sketched his general attitude towards the runica manuscripta (p. xxx f.). The tenth chapter of the second edition of his Handbuch was devoted to runenames and their meaning (4). In a paper published separately Arntz presents the apparatus criticus and a detailed discussion
(1) J. Blompirld, Runes, 211 f.
(2) J. Blompield, Runes, 209 ff
(3) J. Blompield, Runes, 221.
(4) H. Arntz, Handbuch ${ }^{2}$, 167-233.
the material used in that chapter ( I ). He intends mainly to ot an account of the history and the cultural background of manuscript runes. His main concern is expressed in the otto at the head of his paper, a quotation from Baesecke' dy of the Abecedarium Nordmannicum (2). Following tesecke, he considers the efforts made to adapt OE. runic lore Continental Germanic speech as the crucial problem. In respect he wants to complete the task where von Grienberger toff. Starting from a discussion of Miss Raucq's article on ussels MS. 9565-9566 and St. Gall MS. 270, he hopes to lay efoundations for a new study of the OE. rune-lists, whether borcs or alphabets. In this introduction he examines the nes and their values in the two related manuscripts. But aen he comes to the rune-names he extends his field to include known lists of names. He too is aware of the gap between manuscript material and the genuine runic tradition, and tries to classify the alterations which the material may dergo ( I ). His survey shows some traces of the prime im(a) H. Arntz, Runen und Runennamen.
oh in Gebiete der verwandten Sprachen mit Antas Ringen der Mission, die zinn es zum Schreiben kommt, keine systematische Grammativchlăgt und die, 48 fremden Formen und Laute oft vergeblich mit dem Zeich hat, vielmehr 4treffen sucht" (G. Bakskcke, Das Abecedarium Nordmanniamm der eigenen 7) H. Arntz, Runen und Runennamen, 188 : " Von dieser, Yett sind, wie wir sagten, die handschriftlichen Runenrecihen weit entferme 4ist aber fesselnd $z u$ beobachten, wie in ihnen und den Rumenliedern his efilen noch ein Funke des alten Verstandnisses aufglimmt. Freilich nur Th Funke. Denn das Wechselverhaltuis beschrinkt sich nicht darauf, dass die to Runenhandschriften ${ }^{\text {a }}$ ) Aten nordische (bzw enemisch)
b) Solche Namen in Schreibungen Runennamen in Normalschreibung b) Solche Namen in Schreibungen, deren Schriftbild die Aussprach verdeutichen soll.
d) Angleichung einzelner Laute an das Lërter, die âhulich klangen
a) Volle Umsetzung in ein lautlich das Lautsystem des Schreibers. auf die Bedeutung).
f) Volle Ubersetzung in ein Wort von gleicher Bedeutung.
19) Ersatz englischer durch nordische Runennamen und umgekehrt
D) Missveratindnisse und Abschreibfebler.

Die Frage ist also zu meist nicht, ob der Schreiber sich darüber klar war 4s er schrieb. Das dürfte (im Gegensatz z.B. zu der von' E. Raucq ver-
portance he attaches to the "Eindeutschung". Moreover his approach is not free from apriorism : before the rune-names have been examined, the types of alterations which they must show are enumerated. Yet Arntz's list may be a guide for the interpretation of the forms found in the manuscripts. The relative importance of the different types does not appear, but they can probably not be placed on one level. Thus the one listed last : ' misunderstandings and copyists' errors ' plays no doubt a larger part than the second 'ON. and OE. rune-names in spellings which should make clear their pronunciation' or the seventh 'substitution of OE. for ON. rune-names and vice versa'. Arntz's belief that runes were a regular part of teaching programs no doubt influenced his list (r).

But for all his good intentions Arntz does not pause to examin his sources more closely than his predecessors. He also reduces the manuscripts to more or less appropriate formulae : e. g. the runes of Brussels MS. 9311-9319' have found their way into the Isidore tradition ' (2). The background of the manuscripts, their historical and cultural context is treated in the same schematic way. Hypotheses put forward by other scholars sometimes in the form of a mere guess, tend to become facts In turn they become the foundations for further hypotheses and far-reaching conclusions.

In his discussion of the rune-names Arntz does away with morphological difficulties in a rather rudimentary way. One feels that his procedure is entirely function of his solution of the genetic problem : almost immediately he launches upon the reconstruction of the world of ideas which in his opinion is reflected by the rune-names. He seems hardly to have used
tretenen Meinung) nur in ganz seltenen Fallen zutreffen. Sondern wir fragen, wie die von unsern Schreibern oder ihren Vorlagen vorgenommenen Ver änderungen zu erklaren sind, und ob wir über sie zur ursprünglichen Form de Runennamen durchstossen können '
(i) H. Arntz, Runen und Runennamen, 250 : "Brüssel sowohl wie St. Galle gehören zu den izbri grammatice (?) oder abori puerorum, d.h. zu den Büchern die in den mittelalterlichen Klöstern den sog. Externschulen angehörten und sich daher an ein weites Publikum wandten. Diese neue Rezeption der Runen ihre Grenzen, und ihre Auswirkungen, stellen uns noch vor eine Vielzal ungeloster Fragen,
(2) H. Abntz, Runen und Runernamen, 190
down carefully prepared list of possible alterations. His fpretation of some forms is really puzzling. Thus nod, the e of the $n$-rune in Brussels MS. 9565-9566 and St. Gall *270, is said to be neither English nor German (1). If this rue, the Heliand and the Ludwigslied are not German er, a conclusion which Arntz will hardly accept. He reduces cultural background of the fupark to reflections of a hypofical Germanic sun cult (2).
rom Arntz's paper we must keep in mind the discussion of forms of the runes and of the way in which Continental bes handled runic material. The rest should be used with tion. Of course a number of lacunae are due to the very Hcult circumstances in which the paper was written, but I the whole approach hardly warranted better results. Still ${ }_{5}$ difficult to pass a final judgment on Arntz's work, as the founced supplement to Runen und Runennamen has not yet \%n published (3)
8. Schneider's recent study on the rune-names has not peared in print; I know it only from the references in $F$. Woh's Handbuch der germanischen Philologie (4). From what said there it seems that Schneider, too, has mainly tried to construct a world of ideas on the basis of the rune-names. hether any amount of textual criticism was involved the Cerpts do not show

Scope and Plan of the Present Study

The first two sections of this introduction have shown that: evidence derived from runic material in manuscripts plays a part in runology at large, even if that part may be a matter of dispute;
(1) H. Arntz, Runen und Runennamen, 228
(z) H. Arntz, Runen und Runennamen, 187.
13) H. Arntz, Runen und Runennamen, 250 [footnote (2)]
(3) H. ARNZ, Runen und Runennamen, 250 [footnote (2)].
(4) K. SCHNEIDER, Die germanischen Runennamen im Lichte der vergleichenden (4) K. Schnsioer, Die germanischen Runennamen im Lichte der vergleichenden dologermanischen Sprach- und Reigionswissenschaft. Versuch einer Gesamt-
duitung. (Ein Beitrag zur indogermanisch-germanischen Kulturkunde und Seligionsgeschichte). Diss. Marburg, 195 I. Cf. F. Stron, Handbuch, 5 II f.
(b) research on the manuscript runes has not yet reached the level attained in the study of the runic inscriptions, although a considerable amount of material has been discovered during the last four centuries;
(c) the study of the runica manuscripta is not only a runological problem : it may also contribute to the history of Mediaeval culture.

We have also found out why the study of the runica manuscripta could not fully develop. From the survey in the second section we may conclude that progress is only possible:
(a) if the manuscripts themselves are examined more carefully. Special attention must be paid to the origin and date of the codices, to the relation of the runes to the rest of the contents, and similar aspects which may influence the value of the material;
(b) if the forms and the values of the runes are studied, and not only the names. The material must be viewed without any connexion with the genetic problem or with other problems of general runology;
(c) if the relationship (or independence) of the manuscripts, and their cultural background, is established with the help of internal evidence, rather than on the basis of doubtful attributions to some or other famous Mediaeval scholar. The manuscripts can be made to tell much more about the meaning of these stray bits of runic writing than is commonly assumed. At the same time generalizations and reconstructions for which we have no really conclusive evidence should be avoided, as they tend to hamper further research, rather than promote it.
Initially I had planned to cover the whole field of the runica manuscripta, and accordingly I began to collect material from Norse as well as from English sources. But gradually I found out that the material which goes back to the OE. fuborc differs in no small way from that which is based on the ON. fubark or fubarks.
The OE. fuborc, with its twenty-eight or more runes, reached lvi
its full development in the ninth century at the latest. We may say that it was becoming a fossil by the end of that century, a curiosum incapable of further evolution. It found its way into manuscripts during a relatively short period. All notations that have come down to us belong to the eighth or the ninth century, or are derived from originals of that period. The ON. fubark of sixteen runes lived on for centuries, and continued to send out new shoots all the time. New runes were created as late as the fourteenth century. Therefore it will often be hard to distinguish between original runic tradition and later learned or playful elaborations (r). One has only to compare the terse Abecedarium Nordmannicum (saec. IX) or the ON. runes of Leyden MS. Voss. Lat. $83,4^{\circ}$ (saec. X) with Jón Olafson's Runologia ( ${ }^{7} 73^{2-1752}$, but using older material) and J. Liljegren's list of secret runic alphabets (2) to realize the proportions of that growth. The cultural background of the OE. material may therefore be expected to be more uniform, and consequently more easily circumscribed, than that of the ON. material. Moreover the study of the former is more urgent, and in a way also more promising, than that of the latter. As we saw in the first section, the OE. inscriptions are few in number. Additional information will consequently be welcome; it may even contribute to the interpretation of some difficult inscriptions. Compared with the ON. epigraphical material, the ON. manuscript runes are a mere drop in the ocean. Their importance for the study of cultural history is rather small and mostly restricted to Scandinavia. Therefore I have felt justified to reserve the study of the ON. runica manuscripta for a later occasion, the more so as they have been examined fairly exhaustively by P. G. Thorsen, K. Kalund, T. yon Grienberger, I. Lindquist and quite recently by A. Bxksted (3).
(1) Cf. p. xxxii, note ( I .
(1) Cf. p. xxxii, note (1).
(2) J. Liljugren, Run-Laita, 53
(3) P. G. Trorskn's Ruma, 53 f.
acsimile edition of the Codex Worng was meant as an introduction to the ON. rumic poems (with notes by S. Bugge) Runicus. K. Kalund edited the

The present work deals with all manuscript runes based on the OE. fupore which came to my notice. For collecting this material I had three sources :
(a) The older literature on the subject. Most items discussed here have been edited in one form or other before. Not all these editions have come to runologists' notice in due time; they are scattered in older works and periodicals, some of which are quite hard to reach. A few are not recorded in H. Arntz's Bibliographie der Runenkunde.
(b) Library catalogues enabled me to unearth several new items, but on the whole the results of this rather tedious search were out of proportion with the labour involved in it. When ' runes' or 'a northern alphabet' are indexed, the task is quite simple, but at times I had to proceed in an indirect way. Some Mediaeval collections of alphabets contain int. al. a runic alphabet, and therefore occasional references to 'alphabeta varia' or to 'Hebrew, Greek and other alphabets' had to be checked. In many cases librarians and authors of catalogues are not to blame for having overlooked runes in their manuscripts. Runic items may be scribbled on pages which were originally left blank, in
nogle islandske Rune-Remser. Smästykker udg. af Samfund til Udgivelise af gammel nordisk Litteratur 1884-1891, 1-21, 100-113, and wrote also a paper on the runes in the Erfurt codex of the Lund annals (Codex Erfordensis af de Lundske Annaler og de deri forehommende Runetegn. Arkiv 25 (1909), 303-309 cf. E. Molitre, Runeindskniften i Erfurt Lundeannaler. Aarbager 1936, 248 f .) In N. Linquist's edition of an Icelandic treatise on magic (En islandsk svart-
konstbok fran 15co-talet. Uppsala, 1921, 6 ff. 34 f.) there are also references to such runica. In the chapter on the isruna tract I have referred to I. Lindquist's edition of part of Jon Olafsson's Runologia. A. Breksted, Islands Runeindskrifter, 213 ff. gives a survey of runic material in Icelandic manuscripts. Many of the manuscripts that have to be examined are listed in the catalogue of the Arnamagnaean collection in the Royal Library in Copenhagen. Here are some others to which 1 found references when preparing the present study: Bamberg MS. Msc. hist. nat. 7; Cambridge MS. Trinity College R. 14. 34; Dublin, Royal Irish Academy, Book of Ballymote; Karlsruhe MS. Aug. CLXIII; Leyden MS. Voss. lat. Q. 83; A Munich MSS lat 276,14436, Oxford MSS. St. John's College 17 Bodley 572 , and the Junius MS. of the Orrmulum; Paris MSS. grec 375, lat. 9666.
the margins, on fly-leaves and bindings. At times their runic character can hardly be recognized or, worse, they assume such fancy names as 'Syriac alphabet ', 'Arabic ', etc. Finally one should not forget that for a number of libraries (and some very important ones) there are no up-to-date catalogues; for a few none at all.
(c) Last, but not least, there is the information which several scholars were so, kind to provide. Especially Professor B. Bischoff (Munich) put his vast knowledge of early Mediaeval manuscripts and archives at my disposal in a most unselfish way. As Professor Bischoff himself has been studying Mediaeval cryptography and strange alphabets, his hints were very helpful. The other scholars to whom I owe information on runica manuscripta are mentioned in the preface.
But even the combination of these three sources does not allow me to guarantee that the present collection is complete. On the other hand, I earnestly hope that it may draw the attention to unpublished or forgotten items, and that this new material may help to fill the blank spots which no doubt will appear in the picture given here. Although I am practically sure that new items will turn up for a long time to come, I do not think that the chances for making staggering discoveries are very great, at least if I may judge from the new items which I was able to add to the known stock of runica manuscripta. A priori we may say that the chances for runes to survive were very slight. It was not sufficient for them to be thought worthy of being introduced into the world of scriptoria and manuscripts; all understanding for this unpractical sort of writing must soon have been lost. Special circumstances, however, sometimes saved them from being entirely forgotten. Thus we have only one manuscript of ca. 1400 where a runic alphabet is still recognized as such, but in the late fourteenth and early fifteenth centuries there are a score or more manuscripts where the runes are called 'Saracen' letters. As I have shown in the Appendix to Chapter III, a runic alphabet and the names of Aethicus Ister's letters were combined, and the
whole was passed off as a Saracen alphabet. By some way or other this alphabet found its way into Sir John Mandeville's Travels, and in this manner it received a wide circulation. Of course such Saracen alphabets can hardly be considered as runica manuscripta.
The material collected in this way fell quite naturally into three groups:
(a) notations which retain the original fuporc order;
(b) runic material arranged in the order of the Latin alphabet (runic alphabets);
(c) runes in non-alphabetic arrangements.

We might of course try to arrange the material according to other criteria. We might e.g. distinguish between English and Continental manuscripts. Although this distinction will occasionally have to be made, it is of little value for a general plan : some English manuscripts are derived from Continental prototypes. To distinguish between the fuporcs (and alphabets) with rune-names and those without is still less advisable some alphabets without rune-names, e. g., are closely related to alphabets with names, but not at all to the other alphabets without. When no other criteria for classification were available, the manuscripts have been arranged chronologically.
The material of the first two groups is again subdivided When we examine the fuporcs, we find that besides items which are unrelated, or can at the most be considered by pairs, there is a group of five closely connected fuporcs. In the manu scripts where they occur these fuborcs are followed by a short treatise on runic cryptography, which, from the name of the first cryptic device described in it, I have called the isruna tract. Similarly a number of runic alphabets are incorporated into a brief history of the alphabet, De inventione litterarum. Therefore the study of the fuborcs has been divided over two chapters, and so has that of the alphabets. The special problems raised by each main group (fuporcs, alphabets) have been examined at the beginning of the first and the third chapter respectively. The matter of the fifth chapter has been subdivided according to the typological categories outlined on
p. xxiv ff. (nos. (a) to (d)). The plan of my work is consequently as follows
I. Fuporcs (I) : unrelated items and small groups
II. Fuporcs (II) : the isruna group.
III. Alphabets (I) : unrelated items and small groups
IV. Alphabets (II) : the De inventione group.
V. Non-alphabetic runica manuscripta.

To chapters II, III and IV I have added appendices with such materials as I believed might illustrate the contents. They are mostly devoted to non-runic material. Although this study only treats of the OE. runica manuscripta, I have of course included such references to ON . material as might help to solve some problems (e. g. runic cryptography)
Of the isruna tract, which is of great runological importance, I have given a critical edition, and examined parallel ON. material. But I have not thought myself qualified at this moment to give what could be termed a critical edition of the De inventione litterarum text. This treatise consists of paragraphs on the Hebrew, Greek, Latin, 'Istrian' or 'Scythian' and runic alphabets. The study of the sources used for the first three or four paragraphs lies entirely beyond the scope of this work, as it would imply a thorough examination of Mediaeval hebraica and graeca, grammatical literature, and such material as lists of nomina inventorum, etc. Therefore, and notwithstanding Pro fessor K. Preisendanz's encouraging invitation, I decided to postpone such an edition. I have, however, included the whole text in the two or three versions which one may distinguish, and I have even added some parallel texts to illustrate the position of the runic alphabet.
Of each manuscript I have given as full a description as I could justify within the frame of this work. These descriptions include, as far as data were available:
(1) the history of the manuscript in question;
(2) its exterior and composition;
(3) its date and origin;
(4) its contents.

The descriptions are based on autopsy whenever possible; but with the wide dispersion of the manuscripts to be examined it was of course impossible to examine them to the last. Therefore in the other cases I used photostats and supplemented the data which I could find in library catalogues with the information which librarians kindly supplied. For that purpose I drew up a questionnaire, the answers to which allowed me to give a fairly uniform account of the manuscripts. Some readers may think this apparatus criticus somewhat out of proportion with the relative importance of the runological harvest. But, as I have indicated before, runology was not my only object in undertaking this study. To obtain a reliable picture of the cultural background of the runica manuscripta no clues should be neglected. What appears insignificant now may become important if new material is added. When Phillips found runes in the neighbourhood of a rule for drawing letters of recommendation using Greek numerals (the so-called regula formatarum) he found it hard to decide whether there was a connexion between the two (p. 115). In my material I came across one more manuscript where the runes follow immediately after the regula formatarum, and a third where they come after an example of litterae formatae. In this way new problems arise, and new solutions can be attempted for old ones. I have hesitated the less to give full descriptions because I believe they may greatly simplify the classification and study of future discoveries.

In the descriptions I have paid special attention to the relation of the runes to the rest of the manuscript. On the one hand we may learn a lot about the background of each individual item and of larger groups of runica manuscripta; on the other hand it may prevent us from drawing rash conclusions and from launching on bold reconstructions which do not stand a critical examination. In general I believe to have been rather reticent in reconstructing the prehistory of the manuscript runes. The study of the literature on the subject has convinced me that many of the brilliant accounts of that prehistory are no more than daring hypotheses, if not mere guesses. It is tempting, indeed, to connect a fupore with Alcuin and a runic alphabet with Hrabanus Maurus. But we must never forget 1xii
that Alcuin is only one among many Englishmen (one hundred ? five hundred ?) who may have brought over their native runes to the Continent, and that the work of converting a fuporc into an alphabet may be explained more easily as the work of a leisurely scribe than of a Hrabanus Maurus involved in theological disputes.

When discussing the runic material proper, I have always tried to do so on as broad a basis as possible. Occasional repetitions could hardly be avoided. I tried at first to arrange my material as was customary till now : to list all descriptions together, and have them followed by the discussion of each rune in the order of the fupark or according to some other arrangement. But this procedure tends to obscure the ties between the runes and their surroundings; it makes it very difficult to gain a clear view of such problems as the relationship between different versions, whilst, on the other side, it hardly helps to avoid repetitions.

In transcribing the runes I have mainly followed the system proposed by B. Dickins; it is given with the fuporc on p . xx , and on the folding plate at the end of this volume. The one point on which I differ from Dickins is rune no. 12. The type I transcribe by $\mathbf{j}$ derives directly from the OGmc. type by the addition of a vertical shaft (cf. p. xxi). It is rare in inscriptions, but quite current in manuscripts. Dickins's $j$ is the more current epigraphical form which occurs also in manuscripts; this I transcribe by $\mathbf{j}$ (cf. $\mathbf{g}$ and $\overline{\mathbf{g}}$ ). To avoid the cumbersome repetition of -rune in $f$-rune, $h$-rune, etc., I have adopted the systern currently used in Scandinavian publications: the runes are rendered by their transcriptions printed in heavy type ( $h=h$-rune). This also allowed me to reduce the number of figures in the text.

The figures in the text do not claim to be facsimiles. No amount of careful drawing can ever take the place of a good photostat or reproduction. In the figures I have tried to render the essential features and as many details as the technique adopted here allowed me. In many cases it was not possible fully to render the ductus, but the series of reproductions at
the end of the volume gives a fair sampling of how runica manuscripta look.

From the point of view of runology I expected no startling findings. I have even refrained from exploiting the runenames as a source of information on the origin of the fupark, because I believed that such an extension would require a far more exhaustive study of twenty-four stems in the different OGmc. languages than I could offer here. I feel sure, however, that the present collection of runica manuscripta and the conclusions arrived at will be immediately helpful for the study of the English runic inscriptions. An amount of preliminary work has no doubt been published on individual inscriptions, a few may be said to have been satisfactorily studied; but a full and up-to-date edition of all inscriptions is still the object of many a scholar's pious wish. At times I have badly felt the lack of such a collection : it would no doubt have enabled me to remove some question-marks from my text. On the other side I hope that these pages may be felt as an incentive to resume the task which Stephens and Vietor did not complete.

## Chapter ${ }^{\text {I }}$

## THE FUPORCS (I)

Only one epigraphical English fuporc has come down to us, and that presents the runes in a somewhat disturbed order. It occurs on a scramasax found in the Thames; the runes have the following forms (the figures below indicate the usual rank order of the runes in the manuscripts) ( 1 ):

$$
\begin{aligned}
& \text { Fig. } 4
\end{aligned}
$$

The manuscript tradition is more abundant, but this abundance is not without leaving a good number of questions unanswered. It is in fact rather disappointing : the different items mostly appear in a sort of vacuum, without direct connexion with their manuscript environment. Therefore we have mainly to rely on internal evidence, and this will rarely prove as conclusive as one might wish.

The Manuscripts and Their Runes.
In the manuscript tradition we may distinguish two strains : (1) The English tradition. In it we may a priori expect some sort of continuity; the existence of Christian runic inscriptions is there to prove that some amount of runic lore was accepted into the new cultural pattern; there was no break, but only an adaptation. Of course we shall have to take into account a certain amount of purely antiquarian interest, kept alive both by native poetry and by inscriptions; on the other hand, the original lore was probably preserved only partially, divested (I) Cf. O. von Frisesn, Runorna, 52, 57 (figs. 45, 49). W. Krause, Rumeninschriften, 438 ff . (with bibliography).
from its more obviously pagan implications, and gradually decaying to a fossil state

At one time four different manuscripts with fuporcs written in England were known to exist. Of these four, two are now lost; one is only a membrum disjectum, and the last is both late (late eleventh or early twelfth century) and influenced by Continental lore. In all there are six fuporcs in these four manuscripts, two manuscripts containing two fuporcs each. Of this total of six fuporcs, four offer the names of the runes, two only their values :

1. Cotton MS. Domitian A 9 : one fuporc with rune-names.
2. *Cotton MS. Otho B ro: one fuporc with rune-names.
3. *Cotton MS. Galba A 2 : one fuporc with rune-names, one with values only.
4. Oxford MS. St. John's College 17 : one fuporc with runenames, one with values only.

Unfortunately these four manuscripts do not represent different strains in the tradition : nos. 3 and 4 are very closely related, and no. 2 , which, like no. 3 , is known only from a facsimile in Hickes's Thesaurus, seems to have been influenced (at least in the facsimile) by no. 1. This notably restricts the value of our material, though the evidence is perhaps not so poor as Wrenn would have us admit.
(2) In the Continental tradition we meet with problems of a different order; these have been discussed in a general way in the Introduction. On the Continent we have an actual break in the runic tradition. We no longer believe in 'German' runic lore to be found in manuscripts : all we find can be traced to English sources, with some rare additions of Scandinavian material.

There are nine manuscripts with English fuporcs written on the Continent; six of the nine fuporcs give the names of the runes as well as their values, two only the values (one of which is incomplete), one neither names nor values :

1. Vienna MS. 795 : fuporc with rune-names and values.
2. Brussels MS. 9311-9319: id.
3. Brussels MS. 9565-9566: id
4. St. Gall MS. 270 : id
5. Vatican MS. Urbin. 290 : id.
6. Trier MS. R. III. 13 : id
7. Salzburg MS. a. IX. 32 : fuporc with values.
8. St. Gall MS. 878 : fuporc without names nor values
9. Ghent MS. 306 : fuporc with values (incomplete).

Of these nine manuscripts nos. 377 form a group by themselves : their fuporcs are accompanied by a short treatise on runic cryptography. Therefore they will be examined apart in Chapter II.
The remaining four versions seem to be independent; no does any of the Continental fuporcs betray a special degree of relationship with any of the English fuporcs. On the whol the Continental fuporcs will be found to provide a more varied information on English runic lore than the material preserved in England. Chronologically, too, they are more important St. Gall MSS. 270 and 878 and Brussels MS. $9311-9319$ belong to the ninth century, whilst no English fuborc is older tenth. This will compensate in some measure the damage which their passing through the hands of more or less ignorant scribes may have done.

> 1. London, British Museum, Cotton MS. Domitian $A 9$ (saec. XI).

The runic material in this manuscript was mentioned as early as 1696, viz. by T. Smith in his catalogue of the Cottonian library (1). H. Wanley copied it for G. Hickes, who edited it in his Thesaurus (2). Of the fuporc with which we are con-

[^2]cerned here, Hickes gave two versions : one in the order of the manuscript, and the other arranged as an alphabet. More recently it has been examined by G. Hempl, C. L. Wrenn and C. E. Wright (1).

Usual Cottonian binding, brown leather with the Cotton arms stamped in gold; on the back the inscription: TRACTATUS / VARII / HISTORICI/ET/MISCELLANEI/ MUS. BRITT/BIBL. COTTON. / DOMITIAN A. IX, and the number 691/a 5 . Older press marks on the inside XIII A binding: XXI. a (crossed out), 52 a (id.r , and on a single leaf, apparently (crossed out, XXanuscript now lost or runidentified, it is not necessary to he lecomposition of the codex in detail (2). A survey of the content is given in Planta's catalogue (3)
is Malnesburiensis, epistola ad Heahfridum contra Scotorum artes quos tanquam sciolos perstringit.
(i) G. Hempl, Hickes's Additions.
C. L. Wrenn, Late Old English Rune-Names.
C. E. Wright, Postscript.

ID.. Robert Talbot and Domitian A.'IX. Medium Ævum 6 (1937), 170 f.
On the runes cf. also :
W. Grimm, Ueber deutsche Runen, 97 f. and Tab. III.
G. Stephens, Monuments I, 102, no. 9; II, 829 f., no. 62 .
T. von Griensirrger, Die
K. Sisam, Cynewulf, $3^{16 .}$.
B. Dickins, The Sandwuich Runic Inscription,
(2) I owe the following information to Mr T. J. Brown, Assistant Keeper (2) MSS.: "... in Cotton MS. Domitian A 9 the juxtaposition of folios 8 , of MSS. : ... in Cotton MS. appears to be quite fortuitous. Their dates appear to be these:
 f. 8 , 8 th cent.; f. 9 , 12th cent.; f . 1 , ith , pent. in part. The dating of the last two is a very doubtful question $12^{\text {th }}$ cent. in part. The dating of the last two ion a
indeed. Folio 10 was formerly attached to the botwon Library, 573
3) A Catalogue of
(1) Fol. 2r (upper margin) : Mitte nobis historiam bede de gestis Anglorum.
(2) In Aldhelm's Epistia Heahfridum there are two OE. glosses 2) In Aldhelm's Epistola ad Heahhreduese ( $7^{\mathrm{r}}$ ).
(3) Fol. $\mathrm{g}^{r}$ : Extracts from a chronicle for $\mathbf{1 1 1 3 - 1 1 1 4}$
(3) Fol. $9^{r}:$ Extracts from a chronicle for 1113-1114.
 (5) An Elencrus by a modern hand.

8r Chaldeorum (ita appellantur) litere; sunt vero Runice. Epistola Dionysii exigui, ad Bonifacium primicerum Notariorum. Sec fere VIII. scripta.
$9^{r}$ Fragrnenta duo:
(1) Ex quodam libro canonum ecclesiasticorum. Saxonice: et (z) De S. Augustino, ex Beda, ut videtur, desumptum. (Add: Saxonice).
$10^{\mathrm{r}}, 1^{\mathrm{v}}$ Alphabeta Runica bina (a Wanleio D. Hickesii gratia descripta) cum explicatione Latina nominum veterum Runarum.
11 $^{-}$Voces Saxonice Latine reddite.
$1 \mathbf{2}^{\boldsymbol{r}}$.Versus quidam technici de calendario, cum historicis observationibus marginalibus.
$13^{\text {v }}$ Regule ad inveniendurn terminum paschalem, literas dominicales, bissextum, et numerum aureum.
$14^{\boldsymbol{v}}$ Catalogus regum Angliax, a R. Ina ad R. Edwardum I; et quot annos singuli reginarunt.
$15^{7}$ Experientia optima pro minutione sanguinis.
$15^{\text {V }}$. Versus rhythmici de regibus Anglorum.
${ }^{16}$ r Versus prognostici de die S. Pauli, \&cc. et de indulgentia quam concessit Clemens P. V. pro recitatione quarundam precum : cum aliis rhythmicis monachalibus.
$17^{r}$ Revelatio B. Hildegardis.
187 Prophetia, thythmicis versibus exarata, cujusdam canonici regularis (Johannis de Bridlington) "secundum opinionem vulgi, qui febribus infirmatus est," ut ipse auctor dicit in initionem vulgi, qui febribus expositione de rebus in ista prophetia, predictis sub RR. Edw. II. expositione de rebus in ista prophetia, predictis sub RR. Edw. II etripsit, eos inscribit Humfredo de Bohun, comiti de Hereford, \&oc. et constabulario Anglize.
84 ${ }^{\text { }}$ Nomina regis illius qui sanctam crucem inveniet, secundum diversas prophetias authenticas.
$8_{4}{ }^{\circ}$ Nota de hora et minuto, quando natus erat R. Edwardus IV
85r. Litere congratulatorie Pii IV. P. ad Edw. IV. R. Angl. de ipsius ad coronam successione. ri Kal. Apr. 146r.
$85^{v}$ The names of the lordships, with the Bageons belonging to the D. of York.

86r Enchiridion ad Laurentium; continens institutiones philosophise et theologise.
The following items in this manuscript are of special interest
fol. 8: Lowe has given an account of this interesting uncial leaf (1): Fol.8r begins with part of a Hebrew alphabet and a note on the order of its letters : [...] uersus nobis (I) E. A. Lowk, Codices Lat. Ant. II, no. 885 . Cf, aiso the Catalogue of Ancient Manuscripts in the British Museum II : Latin Manuscripts, 68.
inuerse a dextris/namque ad sinistram partem eam finiunt propter et nos hoc eodem modo littera[s] posuimus Then : CHALDEORUM LITTERAE HAEC SUNT... EGYP[..]... LITTERAE GRECAE CUM NUMERO ( ?)..., with the three alphabets. Much of the rest is hardly legible: Secundum numerum dierum concep/tus est Dominus, etc.; a fragment of a trilingual glossary : [...] hebrei, Vmera grece, dies latine. Finally : Epistola Dionysii exigui de ratione paschae (fragm.). Although this page contains no runes, it is important as one of the earliest collections of 'spurious alphabets '; these alphabets play a part in the later history of the runes (p. 274 ff.).
fol. 10 is an inserted paper leaf on which a strip of parchment (ca. $20 \times 125 \mathrm{~mm}$ ) has been pasted. This strip was formerly pasted to the lower margin of the next folio. It contains a Scandinavian runic alphabet with some very late forms ( 13 th century); to the left, in green ink : Al/pha/be/tvm/ / Nor/wa/gi/cum; a sixteenth-century hand indicated the equivalents of a number of runes (bfghiloptu).
fol. 11, ca. $208 \times 130 \mathrm{~mm}$, written area $175 \times 98 \mathrm{~mm}$; one column, 3 1 lines. The recto side bears the old folio number 10 in ink (i. e. the Catalogue foliation) and the modern pencil number 1 I . In the lower margin on the verso side the quire mark XIII. Wright tentatively dates this mark in the thirteenth century. He is probably right in supposing that this leaf was at one time the last of thirteen gatherings ( 1 ); at any rate the verso side is much soiled. The outer margin has been repaired by two patches of parchment (max. $35 \times 10$ and $42 \times 8 \mathrm{~mm}$ ). being pasted on to it; apparently the manuscript to which the leaf belonged was at one time or other given a binding with two clasps, and the latter damaged the last leaf.
Fol. II ${ }^{\mathrm{V}}$ contains the runic material arranged as follows (1) C. E. Wright, Postscript, 15 I.
(fig. 5 and pl. I): A first hand drew the runes, with below each its value, in three lines: $\mathbf{f}-\mathbf{s} / \mathbf{t}-\mathbf{e a} / \mathbf{j}-\overline{\mathbf{g}}$. Below the last five runes, however, this same hand wrote the names in full, and the values above them. A second, somewhat later hand added the names of the runes not given by the first scribe, writing them neatly above each rune in II. $1-2$; in 1. 3 it gave different names to the first three runes, variant values to the last two, and added a sixth rune (calc). Wrenn dates the first hand within the first part of the twelfth century, the second slightly later ( r ); Wright assigns both to the eleventh century (2), whilst Sisam dates the first about the middle of the tenth and the second in the early twelfth century (3). The second scribe seems to have intended to 'correct' his predecessor, A much later (sixteenth century) hand gave a few more 'corrections' : the values $d$ and $m$ for $m$ and $\mathbf{d}$ respectively, and (this time correctly) st above the stan-rune. The rest of the page is filled by :
(I) an explanation of the rune-names, in a sixteenth century hand : f. feoh id est pecunia; g. gifu id est gratia; h. hegel id est grando; e. ethel id est patria; d. deg id est dies; th. thorn spina (vel sortes); m. man id est homo (vel mann); a. ar id est reuerentia; æ. æsc id est fraxinus; ea. gear id est annus vel ear; st. stan id est lapis (vel z); R. Rad id est consilium; B. berc id est cortex; S. sigel id est velum; v . vr id est noster (4).
Ker and Wright identified the handwriting as that of the antiquary Robert Talbot ( 1505 ? - 1558) (5).
(2) To the lower right the same hand added the following note : ther ys souch an/other alphabet […] / in the end off [m] y / old saxonice be [de] / de historia ecclesie / gentis Anglorum that/with owt bordes in [...] / last leaf off that bo [k].
Whether the manuscript meant by Talbot has come down
(1) C. L. Wresn, Late Old English Rune-Names, 28.
(2) C. E. WRicht, Postrcript, 150 .
(3) K. Sisam, Cymewulf, 3 r6.
(4) The glosses between brackets are in another hand; vel sortes has been almost wiped out; after asc an $h$ has been crossed out.
(5) C. E. Wricur , Roent (5) C. E. Wricht, Robert Talbot.
to us remains an open question. Wanley's catalogue mentions five copies of the OE. translation of the Historia Ecclesiastica; of these only Cambridge MS. Corpus Christ College S. 2 ( $=$ no. 4I) is said to contain "Elementa quinque priora Alphabeti Runici" ( 1 ). These five runes can hardly be "souch another alphabet" as meant by Talbot.
(3) Another reader had already left traces of his interest in runes before Talbot's time. Under e. ethel etc. he scratched the runes $\mathbf{f} \mathbf{u} \mathbf{p} \quad$ (?) with a dry point; under $d$. deg etc. we can make out part of a runic alphabet, abcdef ghiklmnop scratched in the same rather careless way. Finally, between th and thorn, there is another scratched g. These scratched additions are probably based upon the fuporc written on the same page; unfortunately the crucial letters ( $q, x, y, z$ ) are missing. Cf. p. 263 f .

The glosses on the rune-names were at one time considered as authentic runic lore. Wright has proved, however, that they only reflect a sixteenth century scholar's knowledge of OE. (2). Of the fifteen glosses, eight are completely justified. Those on $e$ and a are due to confusions in the fuporc itself (the OE words are correctly translated, but ethel is not the name of the $e$-rune, and ar is not the name of an OE. rune, but an error for $a c$ ); one is due to the glossator's confusing two runes (gear and $e a r$ ), and in the four remaining cases he has not translated the rune-names, but homonyms or similar words ( $r æ d$ ' consilium ' rad 'riding'; berk (?) 'bark' : beorc 'birch '; segl 'velum' sigel ' sun'; ur ' noster' : ur ' bison').

In his paper on Hickes's additions to the Runic Poem (MS. Cotton Otho B 10) G. Hempl (3) has laid the basis for all further study of MS. Domitian A 9 by a detailed account of what the manuscript actually offers. In the following survey I have indicated where my examination of the manuscript led me to differ from Hempl's results. I have also compared Hickes's
(1) H. Wanlry, Catalogus, 115.
(2) C. E. Wright, Pastscript, 151
(3) G. Hempl, Hickes's Additions.
(3) G. Hempl, Hickes's Additions.
facsimile with the original, as this is the only way to value his facsimiles in those cases where the original no longer exists. The two scribes responsible for the runic material are referred to as ' $A$ ' and ' $B$ '; unless otherwise stated, $A$ wrote the runes and their equivalents, $B$ the names. ' $C$ ' is the sixteenth century 'corrector'.

u: B writes the name $u r$ with short $r$; Hickes gives it a long insular $r$.
$\mathbf{p}$ : the value and the name are both written with crossed $\boldsymbol{a}$. Wrenn argues that porn (the spelling of Cotton MS. Galba A 2) is a better form than đorn (1). As long as no full and detailed study of the variant spellings $p, \pi$, th (and even $d$ and $t$ ) for $/ \mathbb{d} / /$ and $/ \theta /$ has been made, the spelling of the name with either $\bar{a}$ or $\bar{F}$ cannot be used as an argument for the superiority or inferiority of a manuscript (2). Moreover, Cotton MS. Galba A 2 is known only through a facsimile in Hickes's Thesaurus and this does not improve Wrenn's position.
(1) C. L. Wrenn, Late Old English Rune-Names, 27
(2) Neither W. Krilerr, Angelsoichsische Palaeographie, 13, 34, nor other authors on English palaeography supply detailed information on the relative frequency of these variant spelling devices, which it would in fact be the grammarians' task to provide. A good statement based on a limited material is found in H. Stroim's Old English Personal Names ( 128 ff.).
Cf. also J. Blompiend, Runes, 184 f.
Der Ursprung der isländischen Schrift, 8 ff ., 32 ff .
h : this rune is preceded by two dots, the $t$-rune by three. A consequently indicates the old subdivisions of the fuporc into groups of eight runes. There is no such indication of a break in the last 17 runes, and so it is not possible to decide whether A lumped all the additional runes together with the third group, or whether he grouped them th in that case, where he began his fourth group (cf. infra).
Just above the name there are a number of faint strokes, which Hickes interpreted as a variant form of the $h$-rune consisting of a vertical stem with two slanting cross strokes. Hempl rejected this interpretation and reconstructed a variant $h$-rune. (\#) To the upper left of this variant he discovered a faint $a$, to the left of the latter, and somewhat lower (i. e. just above the rune-name wen) the word vel, and in the space between gifu and wen: \&. This \& vel a he interpreted as a gloss made by a scribe who had read the additional rune as a. This glossator would then have discovered that his interpretation was wrong, and in rasing \& vel $a$ would also have erased the left vertical troke of the variant $h$-rune. The result was that at first sight only one vertical stroke of that rune was visible. On this point I offer a different interpretation. So little in fact visible that it is more a question of interpretation han of reading. First of all the name of the rune reads Hegel, not hegel. I admit there is no reason to have a capital $H$ here, but comparison with the $h$ of feoh shows hat the first letter of the name of $h$ cannot be a minuscule. Second, I accept Hickes's interpretation of the additional une. Hempl's objection, that an $h$ of this sort is unique, is not valid. It is actually found in three other manu scripts. With a different value, $\eta$, it occurs in four more manuscripts; in two runic alphabets it stands for $x$, and in one for $y$. How these different values of the rune are to be reconciled will be examined elsewhere (p. 71); here we are only concerned with its existence. Instead of \& vel $a$, which is rather awkward, I read $\not x$ vel $a$ : in his interpretation of the additional rune the glossator hesitated
between $x$ and $a$; consequently he did not recognize the variant as $h$.
i: B can have had only a vague idea of the names of the runes. He seems to have used an alphabetical list of names. Misled int. al. by the acrostic principle, he assigned eight names to the wrong runes. Although A had written ing in the right place, and although B himself wrote the name inc above the ing-rune, he also gave the same name inc to i . Afterwards the name was partially erased; therefore it is difficult to decide whether $B$ actually wrote inc or iuc. Hickes's facsimile reads eac, also adopted by Stephens and von Grienberger, but corrected by Hempl.
$j$ : below the rune A wrote $g e$; perhaps one more letter ( $r$ ? ) was erased, and its place was taken by the dot which separates two consecutive names. B first wrote geor or geur, then corrected it to gear by underdotting the third letter and writing $a$ above it.

3 : although $A$ had given the rune the right value e $e, \mathrm{~B}$ mistook the rune for $s$ (no doubt he connected it with Roman $S$ ) and wrote above it the name of the latter, sigel.
p: the manuscript writes peord with Carolingian r; Hickes's facsimile has insular $r$.
x : below the rune A inserted the value usually found in OE. documents : $\boldsymbol{x}$. But B seems to have hesitated (on account of the acrostic principle ?) and finally left open the space above the rune. He assigned the name iolx to $\mathbf{k}$ instead, and at the end of the fuporc he added a rounded type of $x$ with the name calc (cf. infra).
$s$ : the $s$-rune shows the rare English type found on St. Cuth bert's coffin, on the Thames sword and perhaps in one or two other inscriptions. In the manuscript material there seems to be only one more instance of this form (Oxford MS. St. John's College 17). Right above this rune $A$ or $B$ added the normal type, to the right of which $B$ wrote the name. Of the latter very little is visible. Hickes simply omitted the 'variant ' ( $=$ usual) rune and the name,
and for the rune in the line he substituted R. Stephens, on the basis of a copy by Madden, conjectured the readings co or $e t$ for the name. Hempl read $f e$ and supposed that B , having taken the rare $s$-rune for $f$, had begun to write the name feoh, but then became aware of his error and left off after $f$ e. After having examined the manuscript myself, I can only propose to read sig; whether B left off at this point, or whether the rest of the name has become invisible, I cannot decide, as the page is much damaged in this place. At any rate neither co, et nor even fe seem to be possible.
$t$ : the rune is preceded by three dots placed in one vertical line; cf. under $h$. In the name tir Hickes's facsimile lengthens the $r$ so that it looks rather like an insular $s$; the same happens in $y r$ and orent. Actually B uses a very short Carolingian r. But cf. infra under ea.
e: again misled by the acrostic principle, $B$ transferred the name epel from $\boldsymbol{\propto}$ (*opil-> oepel >epel) to e, and omitted the real name of the latter rune altogether.
$\mathbf{m}$ : B mixed up mand d, although A had given them their correct Latin equivalents. Hence the name deg above the $m$-rune and mann above the $d$-rune. A much later reader, C, 'corrected' the values to make them agree with the names by adding $d$ above A's $m$, and $m$ above A's $d$.
1: the dot which separates the name lagu from the following name is placed high and rather close to the final $u$. This explains Hickes's reading lagir (accepted by Stephens and von Grienberger).
y : Hempl states that A first wrote ing below the rune, and then corrected it to $n g$ by erasing the $i$. This letter, however, was not removed completely, but two dots remain. I doubt whether the partial disappearance of the initial $i$ is due to any interference on the part of one of the scribes. Parts of some other letters are also missing, the reason being that the ink flaked off from the rather greasy parchment. B here repeats the name inc, already given to the $i$-rune (q. v.)
d: cf. under m. Stephens (following Madden) read manis, an error of the same sort as Hickes's lagir for lagu.
$\propto:$ below the rune $A$ wrote the value oe. Above it, there is a variant rune rather like $\mathbf{x}$; to the left of this rune $B$ wrote pro, the $r$ of which has a curious curving stroke going upwards and backwards (1). Hickes omitted the additional rune; Stephens considered it as "an old Scandinavian type of the $M$ " (i. e. a type of $m$ found in the shorter Scandinavian fupark (2)). It is true that part of the rune is missing (ink flaked off) so that it could easily be taken for a variant of $\mathbf{x}$. But Hempl is probably right in identifying it with the type of $e$-rune found in the Thames inscription; this type also occurs in a couple of manuscripts (Oxford MS. St. John's College 17 and Leyden MS. Voss. lat. F. 12 $\delta$ ). As to pro, Hempl interpreted it as meaning that the upper rune may be used for the lower. $B$ may have found this form in his exemplar; but then one does not see why he omitted the name. With B's poor knowledge of the runes it is of course possible that he did not really know what name to give to $\boldsymbol{\propto}$, having transferred $e p e l$ to $e$ to conform to the acrostic principle.
a: the reading of the name is doubtful. Either it was first written $a c$, which was then altered to $a r$, or vice versa. If we may judge from the colour of the ink, the former explanation is the more probable. The r6th. century glossator read ar which he translated by reverentia.
y : on the spelling of this name in Hickes's facsimile, cf. supra under $t$.
ea : here too A wrote the name ear in full (cf. ing), but gave no equivalent. For the remaining five runes, however, A gave both the names and the values. Hempl supposed that A used two different sources, "( (1) One that had the runes and below them their values, and that ended in ea.
(I) This curved stroke is probably accídental; the whole can hardly mean that ' the variant rune stands for $o$ (pro o) ', as such an etymological inter(2) L. Jacobsen-E. Moltike, Runeindsbrifter (Teat)

This is the stage of development of the Old-English fuporc that we find reflected on the Thames knife... (2) One that had runes for $i o$ and for the differentiated velars $k$ and $g$, as well as for the spurious runes cweord and stan" (1). The names $e a r$ and ing and perhaps also $g e($ (if $=g e r)$ show that Hempl's reconstruction of A's sources is not absolutely certain. B mistook ea for $t$ and added the name tir above it. This time tir seems to be written with a long $r$, which rather looks as an insular $s$. Closer inspection shows that this lengthening of the $r$ was probably carried out afterwards; whether by B or another scribe I cannot make out.
j: in his facsimile Hickes makes the name and the value (both written by A) change places. Above io, B added a name orent, a hapax not explained thus far (2). In Hickes's facsimile the name reads osent, with insular s (cf. under $t$ and ea).
$\mathbf{q}$ : the $q$-rune differs from the $e a$-rune by having the latera strokes more developed. The same rune is found for $x$ or $z$ in a number of alphabets, but the value $q$ only occurs in fuporcs. Hickes again has the name and the value of this rune change places, and will do so for the remaining runes too. B added a different but not unparallelled form of the name (cf. cur in Trier MS. R. III. 13; qur in Munich MS. lat. 14436). Stephens reads the name written by A cwocord; the manuscript does not support this reading.
k: the name calc and the value $k$ as written by A were cancelled by B , the first by underdotting, the second by a stroke across it. For calc B substituted iolx. He apparently mixed up the runes $\mathbf{x}$ and $\mathbf{k}$.
st : this rare rune, which is hardly ever found in inscriptions, must already have caused some trouble to A : he gives the name as stan, but the value as se. B added the value $z$, and C st.
(I) G. Hrmpl, Hickes's Additions, 138 .
(2) Could this orent go back to an insular cwert?
$\overrightarrow{\mathbf{5}}$. to the correct name and value given by A (gar, $g$ ), B added the name (?) et. This may perhaps indicate what sor of source $B$ was using. At an early time it seems to have become the custom to have the $z$ of the Latin alphabe followed by a couple of abbreviations and extra letters : - (=est); $7(=e t$, and $) ; \mathrm{p}, \mathrm{d} ; \mathfrak{p}=(p \not x t) ; \mathrm{p}(=w)(\mathrm{r})$ This use seems to have influenced runic alphabets: in Oxford MS. St. John's College 17 and in Cotton MS. Galba A 2 the $z$-rune is followed by a ligature of an $e$ and a $t$-rune, explained as " $\&$ ", and by the usual abbreviation mark 7 . Coming immediately after the $z$ assigned to stan, B's et shows that he considered this a necessary complement to the alphabet. This, and still more B's blunders with inc (for is), sigel (for ih, eoh) and ePel (for eoh, eh) indicate that his exemplar did not present the names in the fuporc order, but rather in the order of the alphabet.
$\mathbf{k}$ : at the end B gave his idea of $\mathbf{k}$ (in fact rather $=\mathbf{x}$ ), with above it the name calc. With this opinion he did not stand alone, as is shown by a couple of runic alphabets where the $k$ closely resembles B's $\mathbf{k}$.
After ea A left a space for one or even two more runes, and began a new line with $\mathbf{j}$. This, and the different arrangement of the values and the names beginning with $\mathbf{j}$ might indicate that A (or his exemplar) used two sources : one extending from $f$ to ea, the other giving the remaining five runes. But I rather believe that A (or his exemplar) was aware of the fact that the last five runes were added at a late date; they probably were never so well established as the first twenty-eight, and therefore more information (in casu the names) had to be given about them. Perhaps this allows us to date the exemplar used by A in a period when the last five runes were still felt as new, say the beginning of the ninth century.
It is not easy to settle the linguistic status of the two scribes, or of their sources. The material is too limited; moreover either of the two scribes may have adapted the forms of his
(I) Cf. A. C. Pauss, The Name of the Letter 3, 44 I ff.
exemplar to his own dialect and scribal habits and have retained others, the whole giving contradictory evidence. On the basis of oe one may perhaps locate $A$ or his exemplar in the North (I). As to B, the clues are ambiguous : gear is West Saxon, but deg and hegel rather non-West Saxon (2), berc and peora could go together in Anglian surroundings (3), but wen is a typical Kentishism (4).
It is mainly on the basis of this one form that Sisam assigned the whole to Kent (5). Perhaps the prehistory of this fuporc is somewhat parallel to that of a good deal of OE. poetry : a Northern prototype may have been partly adapted to its new Southern surroundings. We must keep in mind B's obvious deficiency as a runic scholar : of the twenty-eight rune-names he knows, eight are assigned to the wrong runes. Of course the late date of the manuscript must be kept in mind when we judge B's contribution. The evidence provided by A is probably of great value, but B's additions are poor indeed. With this restriction Wrenn's judgment may be accepted.

## 2. Cotton MS. Otho B 10

This manuscript was almost completely destroyed by the fire of 1731. Our authorities for it are T. Smith and H. Wanley, who gave detailed analyses of the contents (6), and G. Hickes, who edited the Rune Poem (7). This is Smith's description of the contents (the folios are those added in the annotated copy of Smith's catalogue in the Ghent University Library; a
(1) A's rare form of s might perhaps serve to confirm this view, as it also occurs on St. Cuthbert's coffin; but it is found on the Thames scramasax as well, and that seems rather to be connected with Kent, cf. B. Dickins, The (2) E Stiveres-K Brimenke,
(2) E. Strvgrs-K. Brunner, Alenglische Grammatik, $\S \S 52$, 9 r b
(3) E. Sirvers-K. Brunner, Altenglische Grammatik, \$5 84, 120.
(4) E. Sibvirs-K. Brunner, Altenglische Grammatik, §31.
(5) K. Sisam, Cynevulf, 316.
H. Wanlegy, Catalogus, 190 ff.
(7) G. Hickes, Thesaurus, Grammatica Anglo-Saxonica, 135. 16
ew excerpts from Wanley's account are given between brackets) (1):

1. Homilia de creatione, casu Dæmonum, \& adventu Christi. F. i.
2. In Hexaëmeron. 8.
3. Depositio S. Basilii. 17.
4. De S. Mauro Abbate.
5. De S. Mauro Abbate. 27.
6. Passio S. Juliani, \&e ejus sponsse Basilissec. 32 b .
7. Passio S. Sebastiani martyris. 40. [39 b]
8. Passio SS. Joannis, \& Pauli. 53 -
9. Passio S. Eugeniz virginis.
10. DeS. Euphrosyna. 6r b.
11. De S. Christophoro martyre. 69 .
12. De S. Maria Ægyptiaca. 77. [76 b]
13. De SS, Septem Dormientibus. 96.
14. De inventione S. Crucis. 116 b .
15. Passio Alexandri Papas, Eventii, ac Theodoli. 118. [117] b] altero introducitur diabolus, altero introducitur diabolus, ostendens cuidam Anachorete omnes
poenas inferni. 120. poenas inferni. 120.
16. In natalem S. Joannis Baptistre. 136. [XVIII, fol. 136. Conclusio
homiliae de S. Atheldrihtes errore Bibliot homiliae de $S$. Etheldrihta, errore Bibliopegi huc translocata, ut
infra est videre, etc.] 8. Ritus ordinandi Mon
17. Historia Holofernis \& Judithe, ubi plura de Latine. 140 b
\& ad finem, historia Malchi Monachi ex Hieronymo. 143. 20. Historia libri cadentis de coelo coram ex Hieronymo. 143 . solymarn, in qua varia sunt precepta de sanctificando Hiero\&c. \& in fine ait, tertium hoc scriptum esse, quod Deus de coelo miserit, neque post hoc aliud exspectandum. 152. [r 5 I b]
18. Canones antiqui Synodales, Latine. Hlic reperitur confessio fidei Catholice, quam Papa Damasus misit ad Paulinum, Antiochenum Episcopum. 155. [ántqa入or]
19. Poenitentiale Saxonicum. 161. [260 b)
ex his videntur esse literis Runicis similes, tat decem. Aliqui Liber Geneseos, $h$. e. a 37 . capict ad finiles. 165 b.
20. Depositio S. Swithini, \& ejus miracula, de; Suxonice. 166
recentior increpat priora tempora. 182. [181 b] silentio Auctor
21. Natale S. Edmundi, Regis \& maityris. 186.
22. Natale S. Georgii Martyris. 190.
pers. Etheldrytha. 193. [Notandum vera, quod hujusce sermonis quam tanquam hi loci desideratam, restituit quidam neotericus, forte foamnes Yostelinus].
23. Passio S. Margaretre. 195.
(1) No. Hist. 2362 in that library. This copy was annotated shortly after

In the copy of Smith's catalogue mentioned supra the number of the manuscript is marked with red, which usually means total destruction. W. W. Skeat, however, discovered forty-five damaged leaves in the British Museum and Napier one more in the Bodleian Library. All these leaves contained fragments of Elfric's Lives of Saints ( 1 ); the folio with the runes seems to have perished. For, bound up with the collection of Ælfric's Lives of Saints, there was a single leaf which Wanley describes as follows :
XXVIII. fol. 165. Folium quod olim ad alium quendam
librum pertinuit, nunc hujus pars, in quo continetur Alphabetum Runicum cum explicatione Poetica, Saxonice, quod non ita pridem descripsi rogatu Cl. D. Hickesii, qui in Gram. Anglo-Saxonica, cap. 22. de Dialecto Normanno-Saxonica. p. ${ }^{135}$. illud typis evulgavit (2).

Even if the manuscript had been saved, the situation would not have been very different from that presented by Domitian A 9 . Since Smith does not mention the Rune Poom in his survey of the contents, we are led to suppose that it was inserted between the time he saw the manuscript and the time Wanley described it (3). Unfortunately, Hickes's edition, though partly a facsimile (or assuming the appearance of a facsimile), is not a very trustworthy substitute for the manuscript evidence.
the fire. Wanley's description contains a couple of slips: item V occurs twice; instead of fol. 160 b and 164 b we find 260 b and 264 b .
(1) W. W. Skeat, Aelfric's Lives of Saints IV (Early English Text Society, Original Series, 114). London, 1900, XV ff. : "Once a valuable MS., but now much burnt and partially destroyed... Since the MS. was burnt, some of the leaves have been collected and bound up, but are much out of order and partially destroyed; and most of those that can be partly read are much charred and blackened. The leaves have been renumbered in their present haphazard order, as this is the best that can be done ... Not only have several
leaves of this MS. been destroyed, but some fragments went astray; ss Prof. Napier has discovered that a leaf of it came into the possession of Thomas Hearn, the antiquary, who wisely deposited it in the Bodleian Library where Hearn, the antiquary, who wisely deposited it in the Bodeian Library, where its class-mark is 'MS. Eng. th. e. 1.'
(3) The fact that Smirt should have noticed 'ten runes' on the verso side of fol. $\mathbf{x} 5$ [cf. p. 2x, note ( I )] may be considered an objection; but in this case Wanley may have made a mistake in assigning the Rune Poem to fol. 165 [cf. p. 17, note (1)].

In his chapter De dialecto Normanno-Saxonica sive AngloNormannia, © de dialecto Semi-Saxonica Hickes discusses the Scandinavian influence in England at the time of king Cnut
(rovi-1035). He considers the runic Otho $\mathbf{B}$ io as a manifestation the runic material of Cotton MS. Ho io a manifestation of this influence:
Hoc ut credam faciunt runarum Danicarum, tam simpli-
cium, quam Anglo-Saxonice explicata; descriptio quaedam poetica, Anglo-Saxonice explicata; quae in bibliotheca Cott. extat, Otho B io. p. 165, quamque vix antea et ne vix observatam, nedum publici iuris factam, planam quasi ab omnibus
doctis spectatu dignam, hic cum runis et sumpectatu dignam, hic cum runis ære incisis, operæ et sumptus pretium exhibere judicamus, Latinis additis ex adverso elementis, ad ostendam runarum potestatem,
una cum iis nominibus quibus In Hickes's rendering of the Runellantur ipsæ runæ ( I ). In Hickes's rendering of the Rune Poem (2) we have to
distinguish two parts: the left of the page the runes $f-k$ with their namer plates. To the equivalents were printed from a copper plate of $277 \times 33 \mathrm{~mm}$ below the text a second copper plate of $18 \times 1287 \times 33 \mathrm{~mm}$; runes stan and gar and, separated from these rest 128 mm gives the line, this note:

## Hos characteres oldwnxfog (cf. PI. II) ad alia sestinans (read sestinans (read festinans) studioso lectori interpretanda (interpretandos?) relinquo. (inand) relinquo.

To the right the text itself was printed from type, in such a way that each rune is followed by the corresponding stanza. There are twenty-nine stanzas, corresponding to the runes $\mathbf{f}$ - ea; there is no stanza on the last two runes of the first
copper plate ( $\mathbf{q}, \mathbf{k}$ ) nor on the two second (horizontal) plate (stan, gar). (a) (hazenta) plate (stan, gar).
(a) The Text.

The poem has been printed almost a dozen times since Hickes's editio princeps, most recently by E. V. K. Dobbie in (1) G. Hickes, Thesaurus, Grammatica Anglo-Saxonica, 134.
(2) G. Hrckes, Thesaurrus, Grammatica Anglo-Saxonica, 135.
the Anglo-Saxon Poetic Records (1). Dobbie's edition is provided with a good introduction and full notes; therefore the discussion may here be reduced to a brief outline.

The poem consists of twenty-nine stanzas, most of which have three or four alliterating lines. Two stanzas consist of two lines only, and one of five. The manuscript used by Hickes cannot have been older than the late tenth century, as appears from the many late spellings : $y$ for $e$ in unstressed syllables, -un for -um. The original, however, must have been written at an earlier date. Scholars are unanimous in comparing the poem with the older OE. poetry, and therefore it may be assigned to the eighth or early ninth century.

Each stanza gives a paraphrase of one rune-name. The runological value of the stanzas is quite unequal: whereas some of the poetic definitions seem to contain a good deal of genuine runic lore, others must have been thoroughly modernized.

There are two related Norse poems, one Norwegian, the other Icelandic (cf. p. xxvi). Although they are of a much later date than the OE. poem, and cover only the sixteen runes of the shorter Norse fupark, they retain many archaic features. Moreover, there can be no doubt that all three poems are related, whatever the degree of relationship between them may be. Therefore I have reserved the text of the OE. Rune Poem for a collective discussion of all three poems.

## (b) The Plates.

Let us begin with the right hand part of the horizontal plate below the poem, the transcription of which was given supra. All the runes which Hickes leaves to his studiosus lector to be
(x) E. V. K. Dobsiz, The Anglo-Saxon Minor Poems, xlvi f., clxii, 28 ff ., 153 ff. Cf. also:
W. Grimm, Ueber deutsche Ruren, 217 ff
J. M. Kzmble, Anglo-Saxon Runes, 339 ff
B. Dickins, Rumic and Heroic Poems, 6, 12 ff
T. von Grirniergrr, Das ags. Runengedicht. Anglia 45 (1921), 201 ff. W. Kkllekr, Zum altenglischen Rurengedicht. Anglia 60 (1936), 141 f. Cf. further bibliography in Dobbie's edition.
deciphered occur in the fuporc of the vertical plate and are explained in the Rune Poem. These runes seem in fact to have nothing to do with the Rune Poem, and their cursory style lays near the idea, that they were a scribble, perhaps in the margin of the leaf containing the poem. Read as a word o words, the runes give no meaning. This is probably why Hickes left it to the reader to try and make some sense out of them. I can see no more in them than a probatio pennae ( I ). The plate printed vertically to the left gives the fuporc engraved in vertical columns; the left column lists the values of the runes but also three names: ing, ear, cweord; that to the right the runes and their names. The names are usually written to the right of the runes. It seems obvious that the two runes engraved to the left on the horizontal plate below the text belong to the same fuporc. A number of peculiarities must be examined in detail (cf. pl. II) :
$\mathbf{w}, \mathbf{h}, \mathbf{n}, \mathbf{3}, \mathbf{y}$ : of these five runes variant forms are included in the fuporc.
$\mathbf{m}, \boldsymbol{j}, \mathbf{d}, \boldsymbol{j}$, ea : in five cases, too, variant names are given. In three of these cases, the names do not agree. This raises a number of questions : was this fuporc written by one scribe? or were additions made by another hand (cf. Domitian A 9)? Finally, how trustworthy is Hickes's reproduction? In the absence of any description of the original, only a study of details may eventually allow us to solve these problems.
$\mathbf{w}$ : the two variant forms differ only in style : one is a ' pointed ' rune, the other a ' rounded ' form. The value is indicated twice : by $u u$ in the left hand column, by the usual cursive form of $w$ above the second rune.
$h$ : no less than three variants of this rune are found in the second column : (a) the normal type with two cross-strokes, (b) the rare type with one vertical shaft transected by two horizontal (sometimes oblique) strokes, (c) one like the
 agree (Hrckes has only $1.165^{\nu}$, although the number of characters does no agree (Hrckes has only nine), and some difficulties remain [p. 18, note (3)].
first but with only one cross-stroke (hence rather like H)
n : of the two variants of this rune, the second is a somewhat carelessly made normal type, whilst the first is a completely normal type to which a short additional cross-stroke has been added. This addition is probably accidental; it is not found anywhere else ( 1 ).
j : - the value is indicated by $g \ell$, as in Domitian A 9 .
3 : the first rune is the normal type, the second looks rather like a $Z$ the horizontal strokes of which have been lengthened.
p: the upper lateral stroke of this rune is missing; only something like an $h$ is left.
$\mathbf{m}$ : above the letter $m$ indicating the value, a $d$ has been added and to the right of the latter the word deg . Whereas this word is in insular script, the additional $d$ shows a modern type (cf. Domitian A 9). To the right of the rune itself we find the letters an. Consequently the rune must be included to give the reading man. The similarity of the $m$ - and $d$-runes must have led to confusion, cf. infra under $d$.
7 : the first variant shows the normal form, the second a more sophisticated type also found in Cotton MS. Galba A 2 and in Oxford MS. St. John's College 17 . In the column of the values we read ing, in that of the names iug; the latter is obviously a mistake for ing, cf. lug in Vienna MS. 795 .
d : above $d$ indicating the value, the (erroneous) value $m$, and to the right of $d$ the name mann; to the right of the rune the correct name $d x g$.
j : the value io is repeated to the right of the rune, above the name iar.
(1) One might perhaps connect this variant with a form of 0 found in some manuscripts $(\neq)$; or was it. originally intended as a variant for $h$, cf. type (b) of that rune? Neither of these explanations is yery likely, and therefore I have considered the additional stroke as spurious.
ea: besides the name ear in the first column, we find a variant form car to the right of the rune; to the left of the rune the obviously erroneous name tir. The resemblance between ea and $t$ may explain this mistake. Car may be a mistake for ear or for cur; in the latter case it would rather belong to the next rune (cf. infra).
q : both the name and the value are in the left hand column.
$\mathbf{k}$ : for this rune the facsimile has neither value nor name.
st, $\overline{\mathbf{g}}$ : the name and values $(z, s t)$ of st and the name of $\tilde{\mathbf{g}}$ are given to the left of the respective runes.
After a thorough criticism of Hickes's reproduction, Hempl concluded that
(x) the values in the left hand column are taken from Cotton MS. Domitian A 9. Hickes's list of values actually reproduces all the peculiarities of its model : uu, ge, ing, ear, the mixing up of $m$ and $d$; even the ductus can often be recognized.
(2) the variant rune-names and runes are taken from the same source, cf. h, 3, deg $(=[m] a n), \operatorname{mann}(=d x g)$, ear, tir (=ear); also wen?
(3) "the extra runes below", too, would be borrowed from Domitian A 9. Hempl apparently means st and $\overline{\mathbf{g}}$, perhaps also $\mathbf{q}$ and $\mathbf{k}$, not the group of nine runes mentioned on p. 21, which does not really belong to the Rune Poem.
(4) the remaining names would also be Hickes's addition, but here Hempl does not name the source: " The way that Hickes writes the names makes it appear that putting them in was an afterthought with him; indeed, I believe I can trace them to their source, but I refrain from saying more until the necessary material is in my hands. Of course it is possible that the names stood above the runes in the manuscript of the Runic Poem, having been inserted by some later scribe, but before Hickes's day " (1).
Unfortunately The Old-English Futhorcs and Alphabets, the (I) G. Hrmpl, Hickes's Additions, 141. Cf. the quatation on p. xlv, footnote ( x ).
work in which Hempl apparently intended to prove his point, was never published. So we are left guessing what evidence he had at his disposal: If Hickes took all these names from the same list (this is by far the most likely hypothesis), it cannot have been any of those discussed in this study. Cotton MS. Domitian A 9 shows different forms in the rune-names gifu hegel nead gear berc ior iolx (against gyfu hxgl nyd ger beorc iar eolhx); moreover it lacks the names for i, 3 and e: Cotton MS. Galba A 2 differs in the names woyn hegil ned gyr eth eoh ior querd (against wen hxgl nyd ger eh iar cweord), not to mention its imperfect forms peoih (?) and beor. A comparison with Oxford MS. St. John's College ${ }^{1} 7$ is still less satisfactory : hxgil ned geofu ech ilx tyr oebel quar (: hxgl nyd gyfu eh eolhx tir epel cweord); moreover $\mathbf{w}$ and $\mathbf{j}$ and their names are missing in the Oxford manuscript, the order of the runes has been upset, and some have been confused almost beyond recovery. The Continental fuporcs need of course hardly be examined in this connexion, as they seem not to have been known in Hickes's days.

There is then only one criterion by which to decide whether the rune-names given by Hickes actually occurred in the original : do they linguistically agree with the forms of the poem? There seems actually to be nothing contradictory there, except wen vs. wyn ll. 37, 85, wynna 1.94. But this wen is precisely a name which may have been borrowed from Domitian A 9 (cf. Hempl's conclusion (2)). This possibility does not solve the problem altogether, for if Hickes actually found the form woen in Domitian A 9, we may ask : did the list which provided the other names not also present a name for the $w$-rune, and if so, why did Hickes not borrow that name?

The most plausible explanation seems to be the final hypothesis emitted by Hempl : Hickes found a set of rune-names with the Rune Poem, but these names were probably not due to the scribe of the poem itself. This would do away both with the contradiction wen : wyn, and with the necessity to have Hickes borrow the former from Domitian A 9. From the latter Hickes would only have taken : (a) the values of the runes, (b) the variant forms of $w, h, n, 3, y$, (c) the variant
names for $\mathbf{m}$ (deg), $\mathbf{d}$ (mann), ea (tir), (d) the variant values for $m$ and $d$, and perhaps also (e) the runes $q, k$, st and $\bar{g}$ The absence of a name for the $k$-rune may reflect Hickes's hesitation before the conflicting evidence of Domitian A 9 (cf. p. 14 f.).
This does not solve all problems. One might e. g. ask why Hickes added a pointed variant of the w-rune, and not the pointed forms for $\boldsymbol{r}, \mathbf{j}, \mathbf{x}, \mathbf{b}$ and $\boldsymbol{\infty}$ as well, which could also be borrowed from Domitian A 9. (The omission of the variants for $s$ and $\alpha e$ is less striking, as Hickes also omitted them from his facsimile of Domitian A 9). Yet no other solution is more satisfactory.
After removing the intrusive material we obtain the following fuporc with the corresponding names of the runes:

 is ger eoh peorð eolhx sigel tir beore eh "man


The forms $i$ ug and car actually found in the facsimile may either have been scribal errors, or they may have originated in the process of copying and engraving ( I )

The linguistic status of the list of names is not entirely clear. There is not only the form wen, which points to Kent (2), but also eh, a case of levelling typical of Anglian (3). But by the side of the latter we find both eoh and feoh, and apart from eh and wen the language may be characterized as late West Saxon Perhaps these abnormal forms are hardly surprising if we keep
(i) Another possibility should not be excluded : in Domitian $A_{9}$ th $q$-rune looks very much like an ear-nune, hut was given the name cur by scribe B. It is not mpossible that in the course of the preparation of the engraved plate acr of Domitian A 9 became car of Otho B ro. Cf. p. 14.
(2) E. Sievers-K. Brunnker, Altenglische Grammatik, § 31
(3) E. Shevers-K. Brunner, Altenglische Grammatik, $\$ 119$
in mind the long evolution postulated by the text of the Rune Poem.

## 3. Oxford, St. John's College, MS. I7 (saec. XI ex./XII in.)

Although this manuscript has been studied in detail, especially as a reflection of the progress of science in the late tenth and in the eleventh century ( r , no full account of it seems to have been published since Coxe's Catalogue of $\mathbf{8 8 5 2}$. The codex has been identified as one sent to J. Leland by the antiquary Robert Talbot ( 1505 (?) - 1558 ), but this identification does not stand unchallenged (2). It was given to St. John's College by Hugh Wicksteed (3). If we may judge from marginal notes, the manuscript once belonged to the Abbey of Thorney; it was written before miri (4); later it was in the library of St. Augustine's Abbey, Canterbury (5).
(1) See e.g. C. H. Haskins, Studies in the History of Mediaeval Science, 83 f., 329 -
L. Thorndikg, A History of Magic I, 680.
C. W. Jonss, Bedae Pseudepigrapha, 127 f.
A. Wan De Vijver, Less exurres inedites d Abbon de Fleury, 144 ff .
H. Henve, Byhtferth's Preface : the Epilogue to his Manual ? Speculum 18 (x943), 288-302.
(2) J. Leland, De Rebus Britannicis Collectanea (1774), III, 97. According to C. and D. Singer (Byrhtferd's Diagram. Bodieian Quarterly Record 2 (1917-1919), 47 ff .) the volume seen by Leland cannot have been identical with the Oxford manuscript. These authors planned to edit the whole Oxford codex, but this plan seems never to have been carried out.
(3) Fol. $2^{r}$ Liber Collegij Sancti Loannis Baptistax in/vniversitate Oxōn. ex dono Hugonis / Wicksteed Mercatoris Scissoris London / Patris Ioannis Wicksteed olim predicti / Collegij socij.
(4) Fol. 29² [1085] Hoc anno fuit conciliurn apud Gloecestre in natale Domini in quo Fulcardus uiceabbas Thomeiam perdidit ... Et abbas GVNTERIVS directus a rege Willelmo seniore Thomeiam uenit .... fol. 29v domnus Ordmerus 7 Antonius detuleruot Thorneie [corr -iam] reliquias sancti episcopi Atheluuoldi conditoris illius loci uidelicet spinam dorsi in mense octobri, and on fol. $3^{\circ}$ : A nativitate Christi usque ad presens tempus [sunt anni] MCX.
N. R. Ker, Medieval Libraries, 105, dates the codex in 1109-1110, but H. Henvi, Byrhtferth's Preface, would rather assign it to the late eleventh century.
(5) M. R. JAMms, Ancient Libraries, p. 329, no. 1157, and p. 520 : Astrologia 26

Biack leather binding on heavy boards, stamped in gold, with five brass bosses on each cover, and remains of two clasps. Parchment of unequal quality. The 177 folios are arranged into 20 quires, numbered in a later hand: :I- $\left(3^{v}\right)$, II• $\left(15^{v}\right)$, III ( $23^{v}$ ), IIII ( $31^{v}$ ), V ( $39^{v}$ ), VI ( $51^{v}$ ), VII ( $61^{v}$ ), $\cdot$ VIII $\cdot\left(67^{v}\right)$, X. $\left(83^{v}\right)$, XI $\cdot\left(91^{v}\right)$, XII $\cdot\left(99^{v}\right)$, XIII- $\left(007^{v}\right)$, XIIII $\cdot\left(115^{v}\right)$, -XV• $\left(123^{v}\right)$, XVI $\cdot\left(13^{v}\right)$, XVIII $\left(162^{v}\right)$, XIX• $\left(170^{v}\right) ; 6$ paper fly-leaves
in front, 5 behind $(1)$. in front, 5 behind ( 1 )
Ca. $345 \times 245 \mathrm{~mm}$ (written area ca. $235 / 270 \times 175 / \mathrm{m95} \mathrm{~mm}$ ); $\mathrm{r}-3$, but
mostly 2 columns; $35-54$ 11. to the puge. mostly 2 columns; $35-54$ 11. to the page.
In his survey of the contents Coxe distinguished the following items (2):
fol. $\mathbf{I}^{\mathrm{v}}$ Regule de quatuor humoribus, de minutione sanguinis; etc. Incip. "Hi quatuor humores dominantur in suis locis; sanguis dominatur
in dextro latere" in dextro latere."
$2^{v}$ Nomina herbarum. Incip. "Sarminum, id est, Cerfolium" Prognostica e libro Galeni. De mensuris. Incip. "Calculus est ciceris grana ".
$3^{r}$ Versus acrostichides, quorum acrostichis "Summe sacer, te summa $3^{v}$ Tabulaeatur amicis, Gloria Dunstano devoto necne benigno". Basil numerorum et de modis numerandi variis. cf. Beda Opp. Basil. 1563, I, p. i14. De temporum ratione ab Adam "usque ad presens tempus "
$4^{4^{r} \text { Luna quibus diebus bona est, et quibus non. }}$
$4^{\text {y }}$ S. Cypriani episcopi Coena.
$5^{7}$ Alphabetum alixque tabule Runica. Hickes, Thes. III, p. 4 figur. ii. In margine est versus ! Molis. on, erme. frimot. prici. si. pidis. osti.
6 Tabula
6. Tabula orbis universi geographica. De quota feria inquirenda in 6v Atbor consanie tabula.
Arbor consanguinitatis et affinitatis, secundum S. Isidorum, cum
expositione partim metrica expositione partim metrica
$7^{*}$ Tabula exhibens Bryhtferd 8r Tabule plures astrontertho, monacho Ramesiensi, edita
${ }^{12 v}$ Proormium Brihtferthi, Ramesiensis monachi, super Bedam de temporibus.
$13^{v}$ Compotus tam Grecorum quarn Latinorum et Agyptiorum ceterorumque.
$14^{\text {r }}$ Verierabilis Bedre versus de temporibus anni duodecim. Ejusdem versus alii. (opera, t. I, col. 47 b).
abbonis monachi et in eodem libro / astrologia Nignn (Higini) philosophi astrologia Marciani capelle / Compotus helperici doctissimi et / figuraciones gnorum abbonis.
(1) Five folios originally belonging to this manuscript are now bound up with Cotton MS. Nero $\mathrm{C}_{2}$ (fols. 80-84), cf. N. R. Ker, Medieval Libraries (2) H. Coxe,
(2) H. Coxe, Catalogus II, 6, 5 ff

Versus Bedx sacerdotis sex super regulares feriarum tem versus super regulares lunares duodecim
Versus de annis planetarum, hoc est de septem sideribus.
$14^{*}$ Versus de septem diebus. Lectiones de septem embolismis et in Endecadem, curn glossulis marginalibus.
165 Kalendarium, cum expositione de mensium nominibus, etc. necnon diebus festis per singulos menses carmine notatis.
$22^{2}$ Tabule de feriis inveniendis, lunse cursus et signis zodiaci, cum sententiis ex Beda super easdem.
$29^{5}$ Tabuke de circulo decennovali, de epactis, alieque
$35^{1}$ Figura numerum exhibens infinitum, cum Abbonis ratione super eandem.
$3^{6 r}$ Argumentum [Bedx] de luna et de mensibus secundum antiquos, cum tabulis.
$37^{v}$ De positione septem stellarum errantium.
39v Tabula exhibens sedem 'Sancte Trinitatis et individues Unitatis'. Ratio Macrobii de situ orbis.
${ }_{50}{ }^{2}$ De arte arithmetica ex Bothio, etc.
$5^{50}$ De Tabule incolipe Cribio, etc.
$56^{v}$ Tabulse inscripte, a. Cribrum Boetii de multiplicatione
b. De divisione abaci.
$5^{8 v}$ Bede presbyteri de temporibus liber minor, in capitula viginti octo distributus, previa tabula.
$62^{2}$ De natura rerum libri fragmentum.
$65^{*}$ Ejusdem Bedae de temporum ratione liber, præviis prafatione et capitulis.
$23^{\text {r }}$ Heririci monachi expositio Compoti, in capitula triginta octo distributa; cum prefatione.
$3^{\circ}$ Vionysii Exigui ad Petronium episcopum epistola de Paschalis festis ratione.
37* "Item Epistola prefati Dionisii ad Bonifacium et Secundinum de eadem. Petavii de Ratione Temporum App. edit. 1627, torn. II, p. 874.

39 ${ }^{\text {r }}$ Tabule exhibens Indictionem, Epactam, diem Pasche, etc. ab anno 532 ad annum 960 inclusive.
${ }^{144^{7}}$ Tabule argumenti similis ab anno r 422 ad an. 2612.
$5^{\circ}$ Argumenta titulorum paschalium. Beda Opp. tom. I col. 206.
$57^{*}$ De signis secundum Virgilianos. Tabule numerorum faustorum vel contra.
$5_{58}{ }^{\text {V }}$ S. Hieronymi de gradibus Romanorum tractatulus.
${ }^{159}$ Ejusdem Prognostica temporis.
${ }_{59^{\circ}}$ Tabulx granmaticee, cum glossulis marginalibus.
68v Quomodo in compositione mutantur litere, et in quibus et ubi manent.
69: Regule prosodiacre
70r De nominum declinationibus, previo schemate; aliaque grammaticalia de adverbiis, conjunctionibus et verborum conjugationibus. 75 ad morbos varios. Manu aliquantum recentiore.

To this list the following remarks must be added
fol. $\mathrm{I}^{\mathrm{r}}$ A geometrical fragment (with drawings), by a later hand
$5^{7}$ For a full description of the page with the runes, ef. infra.
6 In the lower margin a modern hand has inserted the solutions to the cryptograms on the preceding page (cf. infra).
8. One of the two rotae on this page has part of the text written with notae Sancti Bonifatii, in which the vowels are indicated by one (a) to five ( $u$ ) dots, e.g. $c \ldots, r::: l \ldots \ldots s: t: \cdot c / m \ldots \ldots r \ldots s=$ circulus uitea [i.e. uitae] ac mortis; etc. (i.e. the sphera Pythagorae) 6r ff. The comment added to the calendar comprises extracts from Hrabanus Maurus and Heriricus ( I .
$25^{\mathrm{r}}$ Compotvs velgaris qui dicitur ephemerida Abbonis.
fr. Computistical fragments : comments on Gerbert, extracts from Herigerus.
At this point the order of the quires seems to be disturbed; fol. $62^{r}$ begins chapter XVI of Bede's De natura rerum, and fol. $65^{r}$ has note: hic debet sequi hunc liber de temporibus qui est in anterion quaternione.
$144^{\text {r }}$ ff. are by several later hands
$154^{\vee}$ Coxe locates items 46 and 47 erroneously on this page; they are found on fol. $157^{\mathrm{v}}$
$175^{r}$ In the margin a charm wid blod rine of nosu.
The codex has been rightly described as "a scientific encyclopaedia ". Van de Vijver has demonstrated that it reflects int. al. the teaching of Abbo of Fleury at Ramsey (986-8), where Byrhtferth was one of his pupils (2). This is important because we shall find the runes in the neighbourhood of alphabets known from other sources to have been circulating in France
The runic material first came to the notice of Wanley and Hickes (3). It was edited in part by C. L. Wrenn in his study
(1) The OE. names of the months are also given in the caiendar. Other inglosaxonica in this manuscript include glosses to the table of degrees of consanguinity ( $6^{v}$ ); Nomina dierum secundum Anglos: I. Suonandreg, etc. on $7^{\mathrm{v}}$; a series of glosses on $74^{v}$; explanations of the OE. names of the months on $76^{\circ}$ : Eastermonad : aprilis. eostra enim pascha uocatur apud eos, etc.
(2) A. VAN DE VIVEs, Les ceurres ind
(2) A. VAN DE Vijver, Les ceueres inedites d'Abbon de Fleury, 144 ff. The manuscript also contains later material, down to Gerland (108I), cf. C. H. Haskins, Studies in the History of Mediaeval Science, 83 f., 329, and
L. Thorndike, $A$ Hitory of Magic I 680. L. Thorndike, A History of, Magic I, 680.
(3) G. Hickes, Thesaurus, Grammaticae Islandicae Rudimenta, Tab. II,
on the OE. fuporcs ( $\mathbf{I}$. His edition is not entirely satisfactory; besides being only fragmentary, it contains a number of misreadings and rearranges the material in an arbitrary way. As will be seen from plate III, fol. $5^{\mathrm{v}}$ contains, from left to right :
( 1 ) In the left margin, a cryptogram
Molis. on . erme. frimot . prici.si . pidis . osti . ridimot. By changing the vowels according to the rule : $e=a$, $i=e, o=i, u=o, a=u$ it may be read :

Miles in arma fremit, prece se pedes iste redemit.
What is meant by that prece is not clear; charms are found only in the final pages of the codex, and none of them seems to fit the situation referred to in the cryptogram; was the cryptogram itself meant to work the magic?
(2) (This and the following items in vertical columns).

A Norse fupark of sixteen runes, giving also the values and the names. When compared with the manuscript Wrenn's rendering shows the following divergences :
$4^{\text {th }}$ rune] "Os (almost rubbed away)": the manuscript has only $e$ for the name of this rune; 15th rune] "Liur": MS. laur; last rune] "Reiđr" : although the final $r$ is somewhat hidden by an ornamental line, there is no doubt about the reading reider.
The knowledge of the Scandinavian runes displayed in this first fubark is poor: a has both the value and the name $e ; \mathbf{n}$ is called nou, and $\mathbf{R}$ reider instead of $y$ r. Moreover the order has been disturbed: instead of iastb we find itbsa. Yet the runes themselves show a fairly pure and archaic type, closely resembling the Gorlev inscription (2). This agrees with the name tiur for the $t$-rune; the same spelling is found in Leyden MS. Voss. Lat. Q 83, which contains the oldest manuscript Scandinavian fupark.
(1) C. L. Wrenn, Late Old English Rure-Names, 3I ff. Cf. G. Hickes, Thesaurus, Grammaticae Islandicae Rudimenta, Tab. II, nos. 6-11. G. Stbphens, Monuments I, 108 f., nos. 31-36.
H. Arntz, Runen una Runennamen, 177 , note 1 , etc
(2) O. von Frieskn, Rumorna, 122 f. (J. Brendoum-Nimsenen)
L. Jacossen-E. Moltxe, Runeindskrifter (Text), 292 ff., (Atlas) Pl. 226 ff .
(3) A fictitious alphabet ending with $r$, values and letters, almost identical with the littere caldeorum et sirorum of Cotton MS. Titus D 18 (cf. p. 338). It is a precious indication in that it connects the Oxford alphabeta varia with similar Continental collections.
(4) A cryptic alphabet, in which the vowels $A, E, I, O, U$ are expressed by one, two, etc. $G^{\prime} \mathrm{s}: A=G, E=G G, I=G G G$, etc. (I).
(5) - (7) Three cryptic alphabets; the first substitutes one two, three, etc. dots for the vowels, the third the letters immediately following after them in the alphabet ( $\mathrm{A}=\mathrm{B}$, $\mathrm{E}=\mathrm{F}$, etc.); cf. notae sancti Bonifatii on fol. 8 r , and the cryptograms on this page (item (16)). The second cryptic alphabet represents each letter by that which comes immediately after it in the alphabet ( $a=B, b=C$, etc.) ; $z$ is rendered by $A A$.
(8) An English fupore with forty-three runes, giving the names of the runes. It is obviously the result of an unskillful compilation : the order of the runes is badly disturbed, names have been changed, and a number of variant forms, some of which show only trifling differences, have been inserted. A detailed account follows on pp. 38 ff .
(9) A Norse fupark of a later type than (2); it gives the names of the first sixteen runes, and the values of seven additional runes, most of which are of the 'punctuated' type (2). Cotton MS. Galba A 2 (or rather Hickes's facsimile of the runic material in this codex) presents a nearly identical fuporc. Most of the rest of fol. $5^{\mathrm{v}}$ is also found in Cotton MS. Galba A 2. Therefore it will be necessary to compare the two manuscripts in detail before discussing the runes by themselves (p. 37 f.).
(I) Cf. the Irish coll ar guta ' $\mathbf{c}$ for the vowels', a form of secret ogham R. A. S. Micaustres, Secret Languages, 52; and Chapter II, p. 149 .
(2) C. L. Wrens, Late Old Englisht Rune-Names, 33, "". it it [i.e. rune w] is given without Latin equivalent or name near the end of the second Norse is given without Latin equivalent or name near the end of the second Norse
version "; this does not agree with the manuscript situation: there is a as used in OE . writings, but it serves to indicate the value of a dotted $u$-rune in the fupark.
(10) Nemnivus's alphabet : the letters and their equivalents. This alphabet too is found in Cotton MS. Galba A 2; it will be briefly discussed in Chapter II (p. 157 ff.).
(iI) An English fuporc, giving the runes and their values. The first five runes of this fuporc are found immediately below the last Nemnivian letter, without any mark to show that a new series begins; the remaining thirty-five runes fill the next column. This series corresponds again to a fuporc in Cotton MS. Galba A 2, and will be discussed together with the latter's version (p. 48 ff .). It seems to have been mixed up to some degree with Nemnivus's alphabet in the common ancestor of the two versions: three letters found in the oldest manuscript with this fictitious alphabet (Bodley MS. Auct. F. 4.32, cf. p. 157), viz. the 25th letter, et, the 31 st, uult, and the 32 nd , oe, have found their way into the fuporc both in the Oxford and in the Cotton manuscript. This, and the addition of some variants, has increased the number of runes in the fupore to forty.
(12) A runic alphabet of a composite nature, mainly based upon the English fuporc. For a number of runes variants have been included; there are thirty-two runes for $a-z$, and five more after $z$. Since no values are indicated, it is not always easy to decide which value a given variant may have. This alphabet is also found in Cotton MS. Galba A 2, and will be discussed together with the latter's version in the chapter on runic alphabets (p. 264 ff.):
(13) A fictitious alphabet of twenty-two letters ( $z$ missing), with the equivalents to the right. It is remotely related to the 'Egyptian ' alphabet of Vatican MS. Regin. lat. 338, Munich MS. lat. 14436 and Avranches MS. 107 (cf. p. 274 f.). It may well belong to the same tradition as (3).
(14) The collection of alphabets ends with that of Aethicus Ister, of which both the letters and their names are given. It was compiled from at least two different sources : there are two variant letters for $b$, and two letters and two names
each for $c, f, g, h, k, m, c h, s, t$, azathot, $y$ yrchoni and $z$ Moreover some names have been corrected: Choritech twice to Chorizech, Atathot also twice to Azathot, whils the puzzling pror which follows after this name is explained twice by : uel pro R. This pror connects the Oxford manuscript with a Continental tradition again centering in France. (Paris MS. lat. 5239, Strasbourg MS. 326, Florence MS. S. Marco 604, cf. p. 348).
(15) To the right of the last column there are four rotae. The first three are to be used in computing the date of Easter, and are inscribed : (a) DIONISIVS; (b) VICTORIVS; (c) laterculus secundum Antiochos. The fourth represents in a schematical way the different points at which the sun rises or sets in the course of the year : Ortus solis in equinoctio, etc.
(i6) In the right bottom corner a contemporary hand added eight lines of cryptic writing :

1. Muuilc xixilxisniiiixc ilc cxis uttximiiiixe xilidiiiixs.
2. $C \overline{X X}$ uxiiiibixs ixpsixs mysturixi $u \overline{1} \overline{1} \cdot n x i i i i t i t i x s$.
3. XIII XIIII XIII XVI XX IX III XX XIII XVI : XX IX IIII V XIX. XI V VII V XIX. V XIX
4. XVIII IX IIII XIIII III XIX IX XIIII XVII $V$ XXI XIX V XIX
5. : IVX IIIX XX III XX IIIX IIIX XIX X IIII XI

V IIVX: IIIVX V IIVX XIX XX I XIX
6. I IIIX IIV XI IIIVX XIX XI II V XIX I IX
7. [I]kd nfskup -sfgfsft mkcfs ektdsknkof hsbuft.
8. Da eralec maiu iuq iuartsnom ibit matut.

As we shall find related or even identical cryptic systems in other manuscripts too, those just given may be discussed briefly. In the first six lines the principle is the same : some or all the letters are indicated by Roman numerals which show their place in the alphabet ( $a=I, b=I I$, etc.). Lines 3-6 use this system integrally; in 1l. 1-2 only the vowels are cryptic, but in the latter the difficulty is increased by writing the numerals backwards; in the former the whole sentence seems to be
written backwards. In St. Gall this cryptic device went under the name of clopfruna, at least if we may judge from St . Gall MS. 176 (cf. p. 162 ff.). In 11. $5^{-6}$ the difficulty is again increased by writing the numerals ,backwards, but apparently also by reversing the order of the words. In the seventh line each letter is represented by that immediately following in the alphabet ( $a=b$, etc., cf. (6)), and in the last each word is written backwards. A fairly contemporary hand has tried to unravel these cryptograms, but seems to have given up the attempt in 1.5 . On fol. $6^{r}$ (lower margin) a modern hand (seventeenth century) has given the solutions, except for $11.5-6$. It is not surprising that both attempts stranded at the same point : there must be some or other mistake in the series of numerals of 1.5 . The cryptograms give the following readings

1. Clauem consilii cla (?) sic committe sodali
2. cum uobis ipsis mysteria uestra notatis.
3. non quicumque uidet leget, et-
4. si doctior extet.

5-6 [?] rei, res ut signata latebit
7. [H]ic merito referes liber discrimine grates
8. ad celare uiam qui monstraui tibi tutam.

A similar system of cryptic writing is used on fol. $8^{r}$, cf. my notes to the table of contents
In order to enable us to examine the relationship between the Oxford manuscript and Cotton MS. Galba A 2, an account of the latter will be given next.
4. British Museum, Cotton MS. Galba $A z$ (saec. XI/XII ?).

This important manuscript was destroyed by a fire at the binders' in 1865 ; but the runic material which it contained may have been lost at an earlier date ( 1 ). Here again we have to rely upon Wanley's account and Hickes's facsimile.
(1) At any rate the Catalogue of the Manuscripts in the Cottonian Library, Deposited in the British Museum (1802), 242, seems to imply that not much Galba A VI, YIII, XI, XII, XIII, XIV, XVI, XVII were also misging whils 34

Wanley gives the following description :
Codex membranaceus \& antiquus in Octavo, qui quondam fuit, ut dicitur,
peculium $S$. Anselmi, peculium S. Anselmi, in quo continentur, Sermones Latini numero 43 -
ex Augustino, Gregorio, ex Augustino, Gregorio, \&cc. collecti. Post haec occurrunt
I. Quedam de Computo Ecclesiastico Saxonicè.
II. Carmina quedam \& Medicamenta Normanno-Gallicè \& Latinè litteris Saxonicis.
III. Medicamenta contra varios morbos. Saxonicè
IV. Alphabeta Runica diversa, quee cum adiis ex hujusce Bibliothece Codd. MSS. descripta D. Hickesio imprimenda dedi ( x ).
The runic material need not have been contemporary with the bulk of the codex : it may well have been added at a later date. From what scanty information we have, saec. XII ${ }^{2}$ seems a fairly safe terminus ante quem. Some of the runic tems may of course-not to say must-have been copied from an exemplar (or from several) one or two centuries older. Moreover it is quite probable that the runic material represents several traditions, which were brought together only at a relatively late date. Nor should we forget that the runes had been inserted in three different places (2), and perhaps also at different moments. The ownership of St. Anselmus may at the very most help to localize the manuscript; Wanley's cautious "ut dicitur" shows that the manuscript itself provided no clues (3)
mutilated A VII were 'igne et madore corrupt(i)', A IX and A X 'much mutilated ', A XV 'only fragments'. It looks as if only a few remnants of Galba A II perished in 1865 , the bulk having been destroyed as early as 173 r . In the Ghent copy of Smith's Catalogus, too, the manuscript is marked in
red $=$ 'destroyed. (1) Cotaloguy .

1. Diversi sermones T. Smitr, Catalogus, 61
argumentis, puta, ad Sacerdotes, de Epistis diebus habiti, \&\% de variis Litaniam majorem, de Sacerdotes, de Episcopis, in dedicatione, ad
2. Runica quedam, precipue in
3. Saxonica quædam de computo Ecclesiastic, 127, 129.
4. Exarcismi quidam \&e computo Ecclesiastico.
5. Exorcismi quidam \& medicinalia; partim Latine, partim Saxonice. 126 .
6. Nomina ventorum, Saxonice. 129. (2) This does not appear from Wanlev'
of Smiry expressly states that runic items wescription, but the Ghent copy (3) For the origin of this manuscript it is important to note thet 129 Galba A 3, containing aSermones ad populum, pars secunda that MS sermone XLIV. \& desinit in sermone LXXXVIn, etc. once incipit

In Hickes's facsimile (1) we find seven different items :
(I) "Inscriptio Latinè, litteris Runicis, ex ejusdem bibliothecae Cod. MS. Galba. A. 2 "; in transcription :

Ego dixi, Domini, convertere oc[u]li. Domine, confiteantur sacerdotes. Domine, salvum fac regem, salvum fac populum tuam, Domine.
It is written in Norse runes, with some peculiarities showing that the scribe was not completely familiar with this type of writing ( ON . dotted $\mathrm{k}=c$ instead of $=g$; uncial $\partial=d ; \mathrm{ON} . \mathrm{h}=g$ ) (2).
Wanley does not mention this inscription in his catalogue, but Hickes's statement seems to leave no place for doubt. Immediately below this inscription the facsimile reads "Alphabetum Runicum, ibidem", whilst a brace shows that the indication "Alphabeta Runica ex eodem Codice MS. GALBA. A. 2 " (vertically to the left) applies to all the alphabets except the last (this, a fully punctuated Scandinavian runic alphabet, was taken from MS. Galba A. 3).
(2) A Norse fupark; the usual sixteen runes, with one additional, punctuated rune for $g$. The values are indicated above the runes; of special interest is Norse $\mathbf{R}=\boldsymbol{x}$. For the first two runes the names are also given : fer (a hyperScandinavianism due to an English scribe?), ur.
(3) An English fuporc, with the names of the runes, in two lines: $\mathbf{f}-\mathbf{b}, \mathbf{e}-\mathbf{z}$. Hickes's facsimile seems to render some of the palaeographical features of the original : insular $r$ in porn, rad, gyr, tir, beorc, yr, ear, querd, ior, gar (but not in ur); $f$ in $g y f u$ (but not in feoh); $g$ in $g y f u$, hegil, gyr, sigel, lagu, ing, dxg, gar; $w$ in wyn. Yet there is also

Fontains Abbey (T. Smith, Catalogus, 61 : $x$ Liber olim S. Marie de Fontibus n.) Fontains Abbey (T. Smrrt, Catalogus, 1 , : Liber olin A Northern origin would make medeail Libraries, 142 ; and P .48 .
material. C. also N. R. Kn, Meramaticae Islandicae Rudimenta, Tab. VI. (x) G. Hickes, Mosamis I, io3, nos. 12-15; Ho, nos. 40-42.
(z) This rune for $g$ may be an English type, namely.; ;or (ie a did havian was mistakenly used for g , the symbol for the latter (i.e. dotted $\mathbf{k}$ ) being already used for $c$.
the possibility that Hickes 'insularized' the original, as he did for hand B in Cotton MS. Domitian A 9 (cf. p. 9). The fuporc shows no such striking resemblance to any of the other examples mentioned by Wanley and Hickes, that we could suspect its evidence. In this respect it is of special importance that it is quite different from the fuporc-with-inames in Oxford MS. St. John's College 17. The latter manuscript has a number of items in common with Galba A 2, but on this point it must have drawn from a different source.
For a discussion of this fuporc, cf. p. 45 ff.
(4). A Norse fubark of twenty-two runes, giving the names of the first sixteen ( $=$ the shorter alphabet), and the values of six additional runes. This fupark corresponds almost perfectly to the second Scandinavian fupark of the Oxford manuscript.
(5) An English fuporc, with above each rune its value, again agreeing with the second English fupore in the Oxford codex. The two versions will be examined together on p. 48 ff .
(6) An English runic alphabet, probably based on (3), but with some additions. It is practically identical with Oxford item (12). Discussion on p. 264 ff ,
(7) Nemnivus's alphabet, again closely resembling the Oxford version (item (10))
The problem of the relationship between O (Oxford MS. St. John's College 17) and C (Cotton MS. Galba A 2) is not a simple one. First of all, we must always bear in mind that for the latter we have only Hickes's testimony, and that his facsimiles are no photographs; and, second, that the two manuscripts present unique material by the side of items they have in common. The differences between the versions of the common stock are on the whole trifing.
The order of the items differs on one point : Nemnivus's alphabet stands last in $\mathbf{C}$, but between two runic items in $\mathbf{O}$ C (4)(5)(6)(7)=O(9)(11)(12)(10).

C (4): O (9)
C has beosc (with insular $s$, for beorc), O beor; O has a final $p$-rune not in C , where it may have been illegible (the facsimile has three dots).
C (5): O (II)
where C has a well-made $\mathrm{c}, \mathrm{O}$ has a form which is practically identical with $u$; between the regular values $e$ and $m \mathrm{C}$ inserts another $m$, probably misled by the form of the e-rune (M); C sund ( ) : O sunt; above the curious additional $e$ (corresponding to Nemnivian elau in Bodley MS. Auct. F. 4 - 32 ? Cf: p. 158) C adds mei ds.
C (6) : O (12)
C gives the value of the runes, but this is probably a late addition, at least if we may judge from the writing; C also has three variants not in O : one for $e(=$ the additional $e$ from $\mathrm{C}(5) ?$ ), one for $m$ (the $d$-rune) and one for $s$.
C (7): O (10)
O adds a variant for $s$, and gives the value $z$ omitted by C; C writes the name of the 29th letter hunc, $\mathrm{O} h \bar{c}$. The common ancestor of the two versions of this Nemnivian alphabet seems already to have been a compilation, as it includes a variant for $b$ (no. $3^{\circ}$, corresponding to the regular $b$ of the Bodleian alphabet).
The above balance would place the two manuscripts about on the same level, but this may be unfair to $C$. The form beose in C (4) might well correspond to beorc of the original, as the examination of Hickes's facsimile of Cotton MS. Domitian A 9 shows. Similarly the additions in $\mathrm{C}(5)$ may have crept in during the process of preparing the copy for printing. We have also to consider the forms of the runes, which in C are drawn more firmly and look on the whole more true to style than those in O . Yet, in the absence of one of the two parties it will perhaps be safest to assume that the two collections of runic material are partly derived from a common ancestor.
A. The fuporc with the names of the runes in Oxford MS. St. John's College 17 (item (8)) is one of the most puzzling.

Wrenn, who first edited the names of the runes, prints them in the order of the Norse runes; the manuscript presents them in a much disturbed sequence ( I ). Moreover Wrenn gives the impression that not only the names, but also the values of the runes are indicated in the original (2); actually the scribe indicated the value of only one rune. Another hand, possibly of the seventeenth century, added the values of the first six runes ( $f u$ thor c) and corrected $\log u$ to lagu; these indications have of course no value for our subject
The fuporc consists of 43 runes, all but one having their names written to the right of them. The scribe himself seems to have added the glosses uel cen and uel gyfu, thus giving variants for the names coen and geofu. He may also have corrected the first hægel to hagil. The handwriting shows no special features, except that both Carolingian (geofu $[3 \times]$, sigil, sigel $[2 \times]$, logu, ing $[2 \times], g y f u$ ) and insular $g$ (hægel $[2 \times], \operatorname{dxg}[2 \times]$ ) are used (3).
The fuporc shows the following forms and names :
tcen tgyfu

(1) C. L. Wrann, Late Old English Rune-Names, 33, note 1 : "I have varied the MS. order of the names only so far as to make the OE. forms stand opposite
to their Norse equivalents " to their Norse equivalents "
reproduced the rune-symbold and their Rune-Names, 32 : "... I have not as it is shown above, already been given by Hin equivalents, since these have, of special interest in themselves".
(3) In the first Scandinavion f
second with Carolingean $g$.

At first sight one is struck by an amazing wealth of variant runes : three variants are given for the names geofu, sigel $(-i l)$, peord, quar; two each for ech, hxgel, dxg, oepel, yr, ing. But closer inspection shows that this wealth is only apparent; it covers some appaling lacunae. The three runes called geofu are actually $\mathbf{g}, \overline{\mathbf{g}}$ and $\mathbf{j}$; one of the $s$-runes is probably a minuscule $s$; the three $p$-runes are actually hardly differentiated; and more such flaws will appear in the discussion of the details.
The order of the runes is much disturbed, although it is possible to distinguish sequences retaining the original order: fuborcg...tbem l... dcaæyea. But it is difficult to account for the way the other runes have been shifted around. That the runes $\overline{\mathbf{g}}$ and $\mathbf{j}$ should have been inserted after $\mathbf{g}$ is only what we could expect after the names of the former two (gar, gear) had been dropped in favour of geofu. But elsewhere there are no traces of such planning, only a couple of remains of the old order (.. $\mathbf{p} \dot{x} \ldots h n \ldots$... .

This fuporc calls then for discussion on a good many points :
c : the name coen is glossed cen. The former is either an old or a Northern form (umlaut of *köni- (I)) whilst the latter is the regular Southern form.
$g$ : this rune shows the same opposition between geofu and gyfu, though here the relation between the two forms is not so clear. The gloss uel gyfu is added only to the first (i. e. the original) $g$-rune, but this need not imply a better insight into runic matters with the glossator; his gloss probably applied to the two other geofu-forms as well. The two glosses correspond exactly to the forms found in $C$. The conclusion must obviously be that the compiler of O tried to correct the fuporc-with-names which he had already completed, with the help of a version closely related to if not identical with that in C. He got as far
(1) At this point it does of course not matter whether this is actually the original form of the name of c; we can only compare the form coen with such proper names as Coenred (H. Strom,
as the seventh rune, but the next, $\mathbf{w}$, was missing in his own fuporc, and the order of the rest badly upset. This may have discouraged him from continuing his effort. Yet one may ask why he did not copy the correct fuporc all over, if his own proved so poor.
$\overline{\mathbf{g}}$ : the second variant for $g$ shows a unique, highly stylized form.
$s$ : the first $s$ has the normal form; the second is the rarer variant of St. Cuthbert's coffin and the Thames scramasax; the third is either a variant of the second or, more probably, an insular type of minuscule s. The name appears twice as sigel and once as sigil. The latter, which is the older form, has a puzzling parallel in the first hægel, corrected to hægil (q. v.).
p: the first two runes differ only by their lower lateral stroke, pointed in the first, rounded in the second; the third is identical with the second, but has an obviously spurious addition to the left of the vertical shaft.
$t$ : the name tyr is not found elsewhere with this spelling; it may be due to Scandinavian influence (cf. tyr in the second Scandinavian fupark, item (9)).
$e$ : the compiler was evidently misled by the form of $e$ and altered the name ech to mech. The second e-rune, which looks somewhat like a $Y$, is found in only one more manuscript (in the 'Alanic' alphabet of Munich MS. 14436). A connexion between these two concurrences is extremely doubtful; it is also hardly possible to consider this form as runic.
m : the $m$-rune has been interpreted as a variant of the $e$-rune on account of the formal resemblance.
1: the scribe's $\log u$ was probably corrected to lagu by the hand that added the values of the first six runes (seventeenth century or later).
$\mathbf{h}:$ if we knew to whom the correction hægel $>h æ g i l$ is due, we might be able to throw some light on the structure of
this fuporc. But a single $i$ is too little to decide who made the correction. A form in $-i l$ (which is the older of the two) is also found in Galba A 2, but there by the side of sigel, not sigil.
3 : the second $h$-rune is of course no other than the rune which is normally called eoh or $i h$.
k : between the $a$ and the $l$ of the name kalc, a letter ( $c$ ? seems to have been erased.
d : the second $d$-rune is simply the normal type, in which the transecting strokes have been lengthened left and right of the vertical shafts.
$\infty$ : the second $\alpha$-rune is that of the Thames scramasax, also found in other manuscripts.
y : the first $y$-rune is a slightly rounded $u$-rune without subscript $i$ or $y$; the second is without parallel ( 1 ).
ea: this is the only rune for which the scribe indicated the value, apparently without special reason.
$q$ : the first $q$-rune is derived from $p$ by turning the lower lateral stroke to the left instead of to the right. The same type is found with the value $p$ in the isruna fuporcs, but there the original $p$-rune has taken the place of $q$ (cf. p. 124). The second form seems to be a variant of the first, whilst the third looks like a combination of a $q$-rune as found in Domitian A 9 with a calc-rune. The name quar is unique. It may perhaps.be compared with quor in Munich MS. lat. 14436 ('Arabic' $q$ ).
(?): the 4oth symbol is hardly runic, unless we interpret it ase $+t=e t$, cf. the symbol following $z$ in the runic alphabet of this same manuscript (item 12, cf. p. 266).
: of the two runes with the name ing the first is the somewhat sophisticated type of $\eta$ also found in Cotton MSS. Otho
(1) In a few runic alphabets we find a $p$-rune resembling this $y$; but this resemblance will be purely conincidental

B 10 and Galba A 2. The second is an $x$-rune; exactly the same form occurs as no. 17 , with the name ilx. The transfer $x>0$ may be due to an intermediary misled by the acrostic principle ( $\Psi=i_{[ }[x]=i n g$ ).
$z$ : the $z$-rune seems to be ea with two short strokes added to the left of the vertical shaft. The same rune (without additions) is also used for $z$ in the isruna fuporc and the De inventione alphabet.
The evidence provided by the Oxford fuporc with rune-names is not as valuable as Wrenn assumed ( x ); it is perhaps superior to that provided by scribe B of Domitian A 9, but decidedly inferior to that of A's part in that same manuscript. Its Northern origin is shown by the rune-names feh, coen, ech (unless $=e o h$ ), oepel. The name coen may even be hyperAnglian : whereas the rune-name cen is supposed either to go back to *kaun or to have a WGmc. $\bar{e}$, here it must have been mixed up with cēn(e) (*könja-), cf. Coen- in proper names. . Sievers-Brunner declare geofu a late WS. form (2), but both the status of the stem *geb- and the relationship of the various OE. forms are not quite clear (cf. e.g. p. 244). On account of the $-i l$ suffixes, the first draft of this fuporc can hardly have been posterior to the eighth century ( 3 ).

The important Norse ingredients of the collection agree of
(1) C. L. Wrrnn, Late Old English Rune-Names, 34 : "Enough has now been said to indicate that MS. 17 of St. John's College, Oxford, is deserving of more consideration than it has hitherto received from those interested in runes, whether Norse or English; and it may well prove that it should supplant MS. Cotton Domitian $A$. IX in its position of best and earliest exemplar of the later OE. fupark now actually extant '". When Wrinn (p. 33) states that, "except where otherwise noted in the above list, his [i.e. the scribe's] names correspond accurately to his symbols", the following cases should be
added to the exceptions noted by him : geofu as the name of $\bar{g}$ and $j ;$ mech as the added to the exceptions noted by him : geofu as the name of $\mathbf{g}$ and $\bar{j}$; mech as the should also be kept in mind. We shall see, however that the fuporc without mames in $O$ and $C$ and that with the names in $C$, provide as cood evidence names in $O$ and $C$, and that with the as any other version written in England,
note 8 ; geofu occurs repeatedly in the Durham Liber Vitae be claimed for Northumbrian as well.
(3) E. Sigvers-K. Brunnnkr, Altenglische Grammatik, § 152
course well with a Northern origin. Wrenn would even go so far as to ascribe the compilation to a Dane. His main argument is the absence of the w-rune from the English fuporc. Since this rune did not occur in the Norse fupark, the compiler would have omitted it. But an Anglo-Saxon $w$ (i. e. originally a w-rune) is used correctly to indicate the value of the dotted $u$-rune in the second Norse fupark; so its omission from the English fuporc will rather be accidental, the more so as we see that the compiler upsets the order of this fuporc precisely where the $w$-rune should have come in. Wrenn might rather have called attention to the Norse name of the $t$-rune, $t y r$ (in the first Norse fupark tiur, in the second $t y r$ ). But this form may have crept into the English list from a Norse fupąrk. On the whole the evidence for a Norse compiler is rather weak. At any rate the Oxford collection of alphabets itself could hardly be considered to provide such evidence : a number of mistakes prove that it has only second or third hand information on the Norse runes (nou; reider for the $y r$-rune; beor). Yet this Norse material shows clearly to what extent 'Danes ' and 'Saxons' had merged. The Northern origin of the English fupore with rune-names agrees well with this cultural frame. It is not impossible that the interest in the English runes, of which the Oxford manuscript is proof, was an indirect result of the Scandinavian invasions, or of English missionary work in Scandinavia (cf. infra)

Equally important are the connexions of the Oxford manuscript with the Continent. Three of the alphabets on fol. $5^{\mathrm{v}}$ (items 3: 'Chaldaeo-Assyrian'; i3: 'Egyptian', and 14 Aethicus Ister's alphabet) seem to thave enjoyed considerable popularity in some Continental (especially French) scriptoria. There they were usually added to collections of alphabets of the three sacred languages, or at least of Hebrew and Greek They probably reached England as part of such a collection, but the Oxford compiler left out the 'classical' material, and by various additions obtained a fine collection of 'native' alphabets. Whether all the alphabets were regarded as curiosa by the time the manuscript was written we cannot know for sure; for, in the North of England at least, Norse runes were
used sporadically at a late date (1); but it is hardly possible to connect those inscriptions with our alphabets. Although some of the Norse material is older than the eleventh century, this revival of the interest in runes may well be connected with the active part played by Englishmen in the Christianization of the North; not only did many work in Denmark, Norway and Sweden, but a number of churchmen from these countries studied in England and were ordained there (a source of conflict with the see of Bremen, to which the conversion of Northern Europe had been officially entrusted). Perhaps Wanley's remark on the origin of Cotton MS. Galba A 2 may be remembered here : St. Anselm, to whorr that manuscript is said to have belonged, was one of the foremost promotors of the Northern mission.
The ancestry of the Oxford collection consists at least of three branches: ( 1 ) the runic collection (including Nemnivus's alphabet) also found in Galba A 2; (2) the English fuporc with rune-names; (3) the Continental additions. Whether the notae sancti Bonifatii belonged to one of these branches, or should be set up as an independent fourth, I cannot decide. We may summarize this in a stemma:


The fuporc without rune-names (item (II)) will be discussed together with the corresponding fuporc of Galba A 2 on P. 48 ff .
B. We now come to the fuborc with rune-names of Cotton MS. Galba A 2. It will be remembered that it is known only from a facsimile in Hickes's. Thesaurus, and therefore the remarks on p. 9 ff. must be kept in mind. These are the runes
(x) E.g. on the Bridekirk font (Cumberland, saec. XII).
and rune-names given by Hickes's facsimile of the fupore in Cotton MS. Galba A 2 :


The runes are well drawn, with neat, firm strokes; they present no forms which point to a long manuscript ancestry. Only two runes, $\mathbf{r}$ and $\mathbf{j}$, appear with rounded forms. Similarly the names give the impression of belonging to a trustworthy tradition. The facsimile seems to follow the original closely : insular $r$ is used everywhere except in ur; only 3 .occurs. A couple of puzzles may be due to accidents in the process of copying and engraving, perhaps also to a somewhat defective manuscript. The following remarks apply to peculiarities in this fuporc:
3: the rune is inclined to the right and a short stroke has been added to the lower left of its (originally vertical) shaft This stroke must have been there in the original, for it turns up again in the runic alphabet (item 6) and in the related alphabet of the Oxford manuscript. The name eth is an error for ech or for eoh; in view of feoh the latter is probably the original form. It is not impossible that precisely at this point the manuscript presented some difficulty, cf. the next rune.
$p$ : part of the upper lateral stroke of the rune is missing what is left reminds us somewhat of the $p$ in Cotton MS

Otho B 10 (cf. p. 22). The name, too, must have been partly illegible. In the facsimile the letters peo and $h$ are clear; but between peo and $h$ there is some space, and to the left of $h$, and quite close to that letter, a stroke resembling $i$. There can be no doubt that the engraving is an attempt to render the state of the manuscript. As to the original reading, it was probably peor $\overline{5}$ with insular $r$. Of that $r$ only the short right hand vertical stroke remained; of $\beta$ the lower part was missing, leaving what looked like $h$ to the copyist or the engraver.
$\mathbf{x}$ : the form of the rune is stilistically unique; cf. $\mathbf{k}$.
7 : the rune shows the rather sophisticated type also found in Cotton MS. Otho $B$ ro and in the Oxford manuscript. The name $m g$ is of course a mistake for ing.
$\boldsymbol{\alpha}$ : this is the only rune for which a variant form is given. The variant is of the type known from the Thames scramasax and from a couple of manuscripts. In these instances, however, the vertical shaft reaches at least as high as the upper angle of the quadrangle.
$\mathbf{y}$ : in the rune the subscript mark has been interpreted as $y$ (hence the dot over the $y$-like subscript).
$\mathbf{k}$ : shows the same squarish style as $\mathbf{x}$. To the right of the rune there is a spurious stroke.
$q$ : as usually, the symbol for $q$ is derived from the $p$-rune; the type found here only returns in the runic alphabet of this manuscript and in its twin of the Oxford codex
st : a st-rune made up of two overlapping triangles is also found in the runic alphabet. It does not occur in English inscriptions, but is recorded from Westeremden (inscription B) ( x ).
$z$ : the place of $z$ is filled by a fanciful Roman Z
As far as the names provide linguistic criteria, this fuporc must be located somewhere in the South : feoh, eoh, beorc. The evidence is not altogether clear : a form querd by the side
(1) H. ArŃtz-H. Zkiss, Runendenkmäler, 394 f.
of peorđ may perhaps reflect a special treatment of the vowel following wo (r). The name gyr perhaps allows to narrow down the area where the fuporc was written. In Kent $y$ became $e$ (cf. wyn : wen); but here, where we should expect ger, we find a form gyr; this is probably an instance of reverse spelling not unknown from Kentish manuscripts (2). Therefore we may assign the fuporc to Kent or a neighbouring region. The forms ned and hegil agree well with this supposition. The latter may imply that we must date the fuporc fairly early, perhaps before A.D. 800
C. The survey of the fuporcs written in England will now be completed with the examination of the fuporc without runenames found both in Oxford MS. St. John's College 17 and Cotton MS. Galba A 2.

The differences between the two versions were discussed on p. 37 f .; they undoubtedily allow to derive the two versions from a common ancestor. That ancestor probably had the following runes with their equivalents :
$f$ u d or c guuh $n$ i $9 g x$ p ius $t \quad b$ e m
 1 inc dd oe a a 2 y eag 9 a sunt $k$ oe $x$ uult $s e x$
 Fic. 9
A number of details require special mention :
3: the form of the rune is almost identical with that of the $w$-rune; on the value $d$, see under d .
3. $x$ : the values of these two runes seem to have been interchanged : the 3 -rune is equated to $x$, the $x$-rune to $i u$. This iu is either an old, esp. Northern spelling for io, corresponding to West Saxon eo, or else a Northern spelling for $i w$; in the latter case we have an extremely interesting equivalent for usual eoh, th (3).
$\mathrm{j}:$ on the equivalent $\mathrm{g} g$, see under d .
(i) Cf. E. Sievers-K. Brunner, Altenglische Grammatik, §1i3 A. 2.3 (2) E. Survers-K. Brumnkr, Altenglische Grammatik, §3i A. 1.
(3) E. Survers-K. Brunnkr, Altenglische Grammatik, $\S 234$ A. 3, 250 A. 2. 48

J : apart from $i u$ (if $=i w$ ), inc is the only rune-name written in full (sunt, uult are no rune-names, cf. infra).
d: the values of two pairs of runes seem to indicate some sort of opposition : $\mathbf{b}=d, \mathbf{d}=d d ; \mathbf{g}=g, \mathbf{j}=g g$. From the point of view of Old English, the double spellings are quite obscure. It is of course tempting to call attention to Wimmer's explanation of the $d$-rune as being formed of two $p$-runes. But, first, we cannot suppose this genetic feature to be reflected in a fuporc not older than the eighth century; and, second, this certainly will not help us to explain the opposition $g: g g$. Unless we simply explain the two double spellings as errors, we have to find some justification for this curious phenomenon. As far as I see, it is not possible to account for it within the frame of Anglo-Saxon spelling habits. Double $d d$ and (occasionally) $g g$ do occur, but only to render geminated $d$ and $g$ (the latter is usually spelled $c g$ ); there seems to be no ground for interpreting the runes $d$ and $j$ as geminates. The opposition between $d$ and $d d$ in our fuporc is that between a dental spirant and a dental stop. The same opposition is expressed in the same way in Old Irish manuscripts (e.g. the St. Gall glosses); these also use a parallel device : $g$ for a guttural spirant, $g g$ for the corresponding stop. This, however, does not seem to agree with the use of these spellings in our fuporc, where the situation seems to be exactly reversed : $g$ for the stop, $g g$ for the spirant. To be sure, the stop vs. spirant character of the OE. gutturals is still a matter of discussion. As a result of his analytical studies Sievers believed that palatal $g$, as well as velar, was an occlusive in the older texts. On this Luick (1) based his hypothesis that initial palatal $g$ and $j$ fell together in $\mathrm{OE} . / \mathrm{gj} /$, at least in the older period. If this were the case, the spelling $g g$ for original Gmc. $j$ would become somewhat less surprising; but that would leave single $g$ for the $g$-rune unexplained. Therefore, it will still be safer to assume some amount of Irish in-

[^3]fluence in the prototype of this fuporc. Double spellings do occur fairly frequently in the English inscriptions (Ruthwell : double $\mathbf{p}, \mathbf{t}$ and $\mathbf{i}$; Bewcastle : double $\mathbf{s}$; Bingley: double d; Hartlepool : double d; Brunswick casket : twice double i; Mortain : double o, e and twice double i). If the opposition $g g: g$ remains obscure, we must not forget that there may be a two or three centuries' distance between the prototype and the copies that survived. Cf. also $3: \mathbf{x}$.
$\boldsymbol{\alpha}$ : an OE. $\propto$-rune of this type is unique; the same form appears with the value io in several fuporcs, and for $g$ in a number of alphabets. Formally it is identical with $\mathbf{i}$. This pseudo- $\alpha$-rune, however, is followed immediately by a symbol which is obviously a slightly modified $\propto$. The latter is given the value $a$. One might suppose that $o e$ is a mistake for eo, cf. eor for the same rune in Munich MS. 14436 ('Arabic' $e$ ), but this leaves the equivalent $a$ for the real $\propto$ unexplained. To explain this $a$ as a second mistake (for oe or $e$ ) is to add to the difficulty. It is much more probable that the equivalents have been interchanged, or rather, that the two runes in question changed places : thus the original would have had: $\hat{\boldsymbol{x}} o e$, * a. The latter is a Norse type of a and points to an early date (not later than ca. goo) (r). We must not look very far for the reason why this $a$-rune was added: it was probably a gloss to the ac-rune, the first rune after the $c$-rune. At first it may have been written by the side or above this ac-rune, and one or other copyist will have inserted it into the fuporc. A correct $\propto$ is given as no. 35 (value oo).
a : the $a$-rune is practically identical in shape with the $p$-rune, especially in 0 .
$\boldsymbol{x}$ : the rune is poorly drawn, so that it looks rather like $F$. A better $æ$ follows farther down (no. $3^{6}$ ), and there is a third symbol with this value at the end of the fuporc. This last is a regular type with a slanting stroke added (1) O. von Frisesn, Rumorna 45, 84 f., 140, 146.
to the left of the vertical shaft, probably a spurious addition.
$\overline{\mathbf{g}}$ : this rune is represented by its epigraphical type (manuscripts usually have a square crossed by two transecting strokes). It is followed by a regular $g$ in a slightly decadent form, perhaps meant to gloss the $\overline{\mathbf{g}}$.
$\mathbf{q}$ : as usually, the $q$-rune shows a form derived from the $p$-rune.
st : the name sunt is probably due to the interpretation of st as $s \bar{t}=s u n t$. In C the last letter looks rather like a $d$. No. 38 is a variant form with the value $s$.
$\mathbf{k}$ : a short horizontal stroke (probably spurious) has been added to the vertical shaft.
(uult) : this letter does not belong here; it is the 3 2nd letter of Nemnivus's alphabet.
e? : this pseudo-rune is quite puzzling, and still more so are the words written above it in $\mathrm{C}: m e i d_{s}=m e i$ Deus? The ' rune ' could perhaps go back to an $m$-rune $\triangle$, to which the value $e$ was given, as in the fuporc with runenames of 0 .
From this discussion of details we may conclude :
(1) on account of the spellings $u u(=v)$ and $i u(=i w$ or $i o)$ the fuporc will be much older than O ; this is corroborated by the forms of the runes, which show hardly any signs of decadence, or fanciful distortions. To be sure, neither O nor Hickes's facsimile show typically old features in the handwriting of the values; insular $g$ does not even occur. Yet, if the retention of old features can be an argument for an early date, a 'modern' handwriting cannot be an argument against early dating of the original. If the explanation of $*$ as the Norse $a$-rune is right, the fuporc with this addition cannot be later than the ninth century.
(2) Several of the values are puzzling or simply misplaced. It is not impossible that the values did not belong to the
fuporc from the very beginning, or that they were crowded in in such a way as to lead to errors.
(3) The fuporc seems to have reached its present state by degrees :
(a) the fuporc till the calc-rune;
(b) additions or 'glosses' $: *$ for the $a$-, $\times$ for the $\tilde{g}$-rune;
(c) corrections: the second $\mathscr{a}$ - and the second $\mathfrak{F}$-rune;
(d) accidental intrusions from Nemnivus's alphabet.
5. Vienna, Ósterreichische Nationalbibliothek, MS. 795 (saec. IX in., X).

No manuscript with runes has received so much attention as this Vienna codex, and for various reasons : it contains an important collection of Alcuin's letters, compiled during his lifetime and perhaps by no one less than his pupil Arn, then Archbishop of Salzburg; in it is preserved some fascinating Gothic material (r). At one time this Gothic material played a very important part in runological studies, but nowadays scholars rather tend to adopt a more reserved attitude; we shall see there are some grounds for scepticism.
(i) Frobentus Forstra, Conspectus ominium openum Alcuini. Ratisbone 1760, 6, 15 .
${ }^{-}$ID., Opera Alcuini. Ratisbone, $1777=$ J. P; Migns, Patrologia lat. CI gor C ff.
H. G. Prktz, Archiv der Gesellschaft für altere deutache Geschichtskunde 3 (1821), 604.

ID., Italiänische Rieise, 462.
W. Gimm, Zur Litteratur der Runen, I ff. $=$ Kl. Schriften III, 85 ff
W. Massmann, Gottthica Minora. Z. f, d. A. I (1841), 296 ft .

A. Kirchioff, Das gothische Runenalphabet, zo ff
J. Zacher, Das gothische Alphabet, iff.
P. Jafre, Monumenta Alcuiniana (Bibliotheca Rerum Germanicarum VI) Berolini, r873, 137.
T. Sickra, Alcuinstudien. Sitzungsberichte der philosophisch-historischen Classe der kaiserlichen Akademie der Wissenschaften. LXXIX. Wien, 1875, 468 ff.
K. Folz, Geschichte der Salzburger Bibliotheken. Wien, 1877, 8.
T. von Grianberger, Die germanischen runennamen I. Die gothischen buchstabennamen:

The codex formerly belonged to the Cathedral Library in Salzburg; in the catalogue of 1433 it was no. 160. At the beginning of last century it was removed to Vienna with other Salzburg manuscripts; in the Hofbibliothek it was first known as Codex Salisburgensis LXXI, then id. 140, and also under no. 3527. It is still often referred to as the 'Salzburg Alcuinmanuscript', although there is no proof that it was written in Salzburg.
The runes (and the Gothic material) were first communicated to W. Grimm by the historian G. H. Pertz and again by the is due to T. Sickel. The fullest account of the manuscript due to sick.

Plain white vellum binding (1 1 th century). Parchment of varying quality,
well preserved. The codex is made the 5 th to the 27 th are marked ' $a$ ' to ' $z$ ' $(=f 05$ folios $=30$ gatherings, of which central part of the codex; four ' A ' 't ' $z$ ' ( $=$ fols. 2I-191); these form the $2 I[1-4]+3$ IV $[5-28]+7 V(-1)[29-35]$ in front and three at the end : $[52-58]+2 \mathrm{IV}[59-74]+\mathrm{IV}(+\mathrm{r})[55-835]+2$ IV $[36-51]+\mathrm{IV}(-\mathrm{I})$ II [98-101] +4 IV [102-133] + III $[33$ [IV [84-91] + III [92-97] + [ $80-183]+$ IV $[184-191]+$ III $[34-139]+5$ IV $[140-179]+1$ [200-205].
Format $230 \times 137 \mathrm{~mm}$ (w.
fols, 5-20: two; $23-35$ lines to the page. Writen 100 ) one column except on Sickel assigned the following parts page. Written by several hands, to which

 all through the manuscript (I). Chroust made additions and corrections
 state which $\alpha$ was at work in $\mathrm{I}^{v}-4^{7}(\mathrm{x})$. Several of these hands ; he does no

ID., Die angelsichsischen Runerrreihen; 5
W: Lurf, Studien, esp. 76 ff.
A. Chim
schrift ").
( vii, 3 ("Arns Sammelhand-
S. Buger, Norges Indskrifter med de aldre Runer. Indledning

ID. Die gotisch, Gotisches Elementarbuch, 36, 40.
In., Die gotische Bibel, XXX.
O. von Frimgin-A. Grapb, Om Codex Argenteus, dess tid, hem och oden. Med ett appendix av H. Andikesson (Skrifter utgivna av svenska litteraturG. BAkseckr Uppsala, r928, 125 ff.
G. Batesecri, Abiogans, 156 ff.
(I) T. Sicker, Rumes, esp. 209 ff.
(2) A. Chroust, Mormumenta 47 f
(2) A. Chroust, Mormumenta palaeographica I, vii, 3
insular influence, not only in the abbreviations (especially $\beta$ ), but also in the ductus ( $\alpha^{\boldsymbol{*}}$ ).
Sickel dated the bulk of the codex in 798 or shortly after, and connected it with the name of Arn : the collection of Alcuiniana would have been made in France at the order of Arn, former Abbot of the Abbey of St. Amand, and Bishop, afterwards Archbishop of Salzburg (1). In the spring of that year Arn, coming from Rome where he had received the pallium, stayed for some time in the North of France, as he had planned to meet Charlemagne before returning to his see. According to Sickel fols. $1-20$ and 150 ff . were written during or immediately after this journey. It appears, however, that Sickel disregarded some chronological differences. When we compare the handwriting of the runic and Gothic material with e.g. that in the facsimiles given by Chroust, it becomes obvious that the former may well be a century younger. Therefore I believe with von Grienberger (who does not seem to have known Sickel's study) (2) and Dr. F. Unterkircher; who kindly examined the manuscript for me, that the text on fols. 19 and 20 is a later, tenth century addition (3). This is of the utmost importance for the appreciation of the runes and the Gothica. Contents : (4)
fol. $x^{x}$ Table of contents ( $x^{\text {th }}$ century) (5).
I* Alcuin, Two letters to Am
(1) On cultural relations between St. Amand and Salzburg see e.g. B. Bischorf, Schreibschulen 1, 144, 265
(2) Most scholars discussing either the OE. or the Gothic material do not seem to have known Sickel's study; Miss Blompinan is a rare exception.
(3) G. Baesecke, Abrogans, 156, considers the Orthographia brevis originally to have been a separate manuscript : " $[\ldots$. Cod, Salisb. 795 in Wien]. Er Schüler Arbeos. Ihnen folgt, ursprünglich eine selbständige Handschrift, Schuier Arbeos. Ihnen folgt, ursprunglich eine
die Alcuin zugeschriebene Orthographia breuis..."
(4) Tabulae I, 134
(4) Tabulae I, 134 .
(5) T. von Grienbrigr, (5) T. von Grienberorr, Die germanischem runennamen I, 185 f.: "Hic
sunt rescripti libri in hoc volumine contenti / Primo Epistole quedam albini / sunt rescripti hibri in hoc volumine contenti / Primo Epistole quedarm albini / Augustinus super Epistolay ad Romanos / Item questiones diuerse doctorum super epistolas pauli / Item Excerpta de diuersis tractatibus / sanctorum primum super Epistola3 ad Romanos / Itern Explanacio Gladiorum qui dicuntur / in passione domini / Item Epistole karoli ad Albinum."

5* (no title) Orthographical treatise, sometimes attributed to Alcuin (1) 19* Formae litterarum secundum Graecos (a Greek alphabet).
$19^{v}$ A Greek syllabary; Roman numeral

In the lower margin a cryptogram. Gothic alphabet.
$20^{\nu}$ Gothic alphabets, etc.
$21^{\mathrm{Y}}$ Augustine, Quaestiones in Evangelits Matthaei et Lucae
$59^{x}$ Augustine, Sensus in Epistola Pauli ad Romanos.
$84^{\pi}$ Excerpts from patristic works (Jerome, Augustine, etc.).
$148^{\mathrm{x}}$ Alcuin, on the Epistle to the Corinthians.
49: Alcuin (?), on the Epistle to the Ephesians.
${ }^{149^{*}}$ Alcuin (?), on the Epistle to Titus.
${ }^{50^{*}}$ Alcuin, Letters.
$182^{\circ}$ Notitia ecclesiarum urbis Romae.
$192^{\text {a }}$
Alcuin, Letters.
$192^{-}$Alcuin, Letters.
$99^{\text {r }}$ Anuber, Letters.
$299^{9}$ Alcuin, Letter to Candidus.
Fol. $20^{\circ}$ shows the following arrangement (cf. plate IV a):
(I) An English fuporc of twenty-eight runes is written in two columns, $f-s, t-y$. Above each rune its value has been inserted; to the right of each is its name. In one case two names are given : $\mathbf{f}, f e c h, f e$.
(2) Below the $y$-rune we find the key to one of the forms of the notae Bonifatii : $a$ is followed by one dot, $e$ by two, etc.
(3) To the right of the runes $t$ - ce part of a Gothic alphabet has been added ( $a$ to $u$, in the original order). To the right of the Gothic $b$ and $g$ there is an erasure; the $j$, too seems to be written over an erasure. In the right top corner, above the number of the folio (' 20 '), there is another Gothic $j$. The right half of the page is blank.
(4) In the lower margin, partly cut away, a cryptogram :
(1) The-text of this treatise is no doubt closely related to that ascribed to Latini VII ascribed the treatise in this codex use the Vienna manuscript). Frobenivs codicem ms. bibliothecre illustrisgimi Alcuin: "Nos, cum vetustissimum numero $7 x$ subnotatum, et circa initium seco. IX exarapituli Salisburgensis, mus in opusculum orthographicum, inter 1 exaratum evolventes incideridescriptas comprehensum, opinari Alcuini hucusque desideratum ". (Mrone, Patrologia ese opusculum beati
XVIII.XI.I.XII.I.XVIIII. [V]
e. ualeas uigeas praesul amate. This device is called chlophruna by Ekkehart IV of St. Gall (cf. p. 162 ff.)
Fol. $20^{\mathrm{V}}$ is wholly devoted to Gothic material; of main interest to us are :
(1) A Gothic alphabet with the names of the letters, arranged approximately in the order of the Latin alphabet ( $a b g d$ efjhiklmnupqrstwuxzhp). For several letters variant forms are included (one for adefhilrs $p$, two for $b$ and $u$ ). The forms of most letters in this alphabet come very close to the 'classical' type of the Biblical manuscripts.
(2) A cursive Gothic (?) alphabet in the original order (the symbol for ' 90 ' has been omitted, and so has that for ' 900 ').
(3) Gothic excerpts with transliteration or translation into OHG.
(4) Remarks on the pronunciation of Gothic (the Gothic words in Gothic script) :
ubi dicitur genuit j ponitur ( I )
ubi gabriel $g$ ponunt \& alia his similia
ubi aspirationem ut dicitur
jah libeda jah libaida
diptongon ai pro e longa

$$
\text { pro ch } q \text { ponunt }
$$

This runic and Gothic material has always been interpreted on the tacit or explicit assumption, that it came directly or
(I) The words ubi dicitur partially hide a Gothic word beginning with $a$, (1) The words $u b i$ dicitur partially hide a Gothic word beginning widh a,
most of which bas been wiped out. It looks as if the compiler first intended to go on with these Gothic extracts and interlinear explanations, but became aware of the inidequacy of the latter, and substituted a few 'rules' he had discovered through his comparative Gothic-OHG. study.
indirectly from Alcuin or his circle ( 1 ). To be sure, the manuscript contains material which would be most readily available in Alcuin's immediate neighbourhood; Sickel's reconstruction of the circumstances is on the whole convincing. But what is true for the texts written in 798 or soon after, does not necessarily apply to additions made a century or more later. Therefore it will be safe to forget the hypothetical connexion with Alcuin for the time being, and to look for internal evidence.

Although the Gothic material falls practically beyond the scope of this work, a few words about its meaning can only help us better to understand the fuporc. von Grienberger believed that fol. $20^{v}$ reflected the collaboration of a native Goth and a German whose native dialect showed the consonant shift; authors taking a less extreme position still thought information provided by Goths (e. g. those settled in the South of France) had been incorporated here (2). As a matter of fact two sets of data must be kept apart :
(a) those derived from a Biblical manuscript i. e. the extracts with transliteration (or translation), the notes on pronunciation and part of the alphabets;
(b) those derived from another source, perhaps from oral tradition : the names of the letters, perhaps also the cursive alphabet.
I do not doubt that a German scholar would have been able to derive the information of the first order from a manuscript such as the Codex Carolinus fragments in Wolfenbüttel
(1) T. von Grienargakr was aware of chronological differences in the material of fols. 1 -zo: fols. $5-20 \%$, including the ruies, must be dated in the material of fols. 1-20: fols. 5 -20r, including the rudes, must be dated in the tenth century; the Gothic material would be a still later addition. Ye
von Grienbrreks not only attributed the runes to Alcuin (Die germanischen runennamen I, 187 : " Da nun die vorgebundenen 4 blitter briefe Alchwines enthaiten und die Orthographia brecis selbst diesem gelehrten Angelsachsen zugeschrieben wird, so ist es gewis wabrecheinlich, dass auch die runenreihe auf mitteilungen Alchwines berube, um so mehr, als ihre namen, wie sich zeigen wird, northumbrischen charakter. besitzen, etc."); the Gothic alphabets too would go back to him.
(z) O. von Fribsen-A. Grapb, Om Codex Argenteus, 125 ff
G. Baesscks, Abrogans, x87, suggests the presence of Goths in the Salzburg area
(Gothic-Latin bilingual) ( 1 ), especially if he knew the Greek alphabet. Such an inductive study would explain the equation OHG. $c h=$ Gothic $q$, and some awkward renderings in the interlinear to the Gothic excerpts. The confusion of $s$ and $z$ is also significant.
As to the letter-names, at one time they were considered as genuine Gothic forms of the rune-names. But this assumption requires so many explanations ad hoc, that Miss Blomfield was quite right to question it (2). There can be no doubt that these names are somehow related to the names of the runes; but that relationship is rather like that between the 'cursive' Gothic alphabet on this page and the 'classical' Gothic alphabet. The following pairs, especially, are not easily accounted for : $j$, gaar; $k$, chozma; o, utal; $x$, enguz; z, ezec. Equally striking is the fact that in the alphabet $u$ takes the place of $o$ and vice versa. It looks almost as if the scholar who compiled this material had confronted the information he derived from a Biblical manuscript with some information gathered in a region where rests of a Gothic population were on the point of being absorbed by their neighbours, and where the Gothic language, as far as it survived, was increasingly showing the influence of the surrounding dialects. Of any part of Alcuin in this matter there is no trace (3).
(1) A. Dow, Die Proveniens der altlateinischen Romerbrieftexte in den gotisch-lateinischen Fragmenten des Codex Carolinus von Wolfenbïttel. In: Aus der Welt des Buches. Festgabe ... G. Leyh ( = Zentralblatt für BibliotheksDesen. Bebs eclesiarticis 7: "Et (ut historiae testantur) postmodum studiosi illius gentis (i.e. Gothorum) diuinos libros in suase boutionis proprietatem transtulerunt, quorum adhuc monumenta apud nonnullos habentur", quoted by G. Bassecke, Abrogans, 156 (note 2). Baesecke supposes that Walahfrid refers to Am of Salzburg, because the latter is believed to be responsible for the Gothica in Vienna MS. 795.
(2) Although I do not agree with Miss Blompribld on all points (e.g. I do not consider Harder's treatment of rune-names or letter-names justified at all : Introduction $\mathbf{p}$. x/vii), I believe the study of this material can only profit by following the general lines laid down by her: "Instead of regarding the contents of fol. 20 of this document as primarily Gothic, or (with still less justification) as runic, we should seek to relate them to the activities of an eighth-century alphabet-fancier" (Runes, 228; Miss Blompred does not accept von Grienberger's date, Rumes, 210, note 1).
(3) The abbreviation mark in dicitur (" the right-hand branch of the $t$ $5^{8}$

We can now proceed to the study of the fuporc. The forms of the runes show on the whole a remarkable degree of 'runic style '; they were obviously copied very carefully, though not always with much understanding, as we shall see :


 Fic. ${ }^{10}$
A number of peculiarities call for comment :
(1) Only one rune, f, has two names: $f e$ and fech. The former is identical with the name of the Gothic $f$ on fol. $20^{v}$.
(2) The scribe may have had some trouble imitating the features of the original. In hægil he wrote something between a ligature $x$ and two independent letters $a e$. It is not impossible that he inserted $a$ after first having written hegil. What looks like $x$ in the name of the rune $r$ has a different origin. In all other cases he simply writes ae (naed, gaer, daeg, aes). Especially his mistake lug (instead of ing) shows that he was copying from an older exemplar with long $i$; this exemplar may have been somewhat damaged, which would explain the form aes instead of aesc.
(3) For three runes the value is indicated by two letters connected by $\&: 3=i \& h$, (or $i \& c h$ ), $\mathrm{x}=l \& x$ (or $i \& x$ ), and $\boldsymbol{y}=n \& \& g$. Of these the last is the easiest to explain: phonetically, as well as graphically, /y/ is in some way a combination of $n$ and $g$. The formula can hardly mean that sometimes this rune stands for $n$, sometimes for $g$.
traversed by a vertical stroke') is typical of Anglosaxon script, but it is also found on the Continent (Cf. W. M. Lindsay, Notae Latinae. Cambridge, 1915, 373 f.), and so it is too ambiguous to support Alcurn's authorship.

The first instance, however, seems to require some such explanation : $\mathbf{3}$ is actually used both for $h$ (e.g. Ruthwell almesttig and $i$ (Dover jzslheard). The value $i$ may well have its origin in the name $i h$, which did not agree with the acrostic principle. In the manuscript it looks as if a $c$ had been inserted between \& and $h$, giving a reading $c h$ for the second value. This may either be a concession to OHG. scribal habits, or else a 'correction' of the same type as rad $>$ raeda or reda (cf. infra). The case of the $x$-rune is more obscure. First of all, it is not clear whether we have to read $l \& x$ or $i \& x$. The case of $l u g=i n g$ shows that the exemplar may have had either $l$ or long $i$. Most fuporcs transcribe this rune by $x$, but Brussels MS. $93 \times \mathrm{r}-93 \times 9$ has $i l$. . The scribe cannot have meant that this rune could be used either for $l$ or for $x$ (the other possibility, an $l$-like $x$, or vice versa, need hardly be mentioned); but he may have implied that it could be rendered by $i$, for in some runic alphabets this rune takes the place of $y$, (e.g. Leyden MS. Voss. lat. F. i2 $\delta$ ). Therefore the reading $i \& x$ is to be preferred. The value $i$ may have been inferred from the name of the rune, just as was the case for 3 .
By examining the rune-names we may obtain the approximate date and localization of the prototype :
f: fech is the normal Anglian form; if $c h$ is not an adaptation to Continental spelling habits, it may point to an early date ( t ).
$\mathbf{p}$ : the name đorn retains the English device for spirant $|\vec{d}|$, which was not entirely unknown on the Continent (Hildebrandslied, Lex Salica). By the side of this one $d, d$ is used twice for the dental spirant: peord, oedil. This situation is also in favour of an early date (2).
$\mathbf{r}$ : At first sight the name looks like reda with a ligature $\mathscr{P}$, and all commentators have read so. Close inspection, however, shows that the scribe actually wrote rad, after
(i) E. Sirvzrs-K. Buunnsr, Alengliche Grammatik, § $_{2} 223$ A. i.
(2) H. Stzön, Old English Perronal Names, 129 f.
which another hand added $e$ above the $a$ of rad, and a second $a$ after the $d$; this change was obviously inspired by the form reda in the Gothic alphabet on fol. $20^{v}$.
g : geofu will not be due to velar mutation of WS. giefu, but is rather a Northumbrian form to be connected directly with the stem *geb- (1)
$\mathbf{w}$ : both the value $u u$ and the $u$ - in uyn may be archaic spellings (2).
$\mathbf{h}$ : on the $æ$ or $a$ e, cf. supra. The ending -il (for original syllabic $l$ following $g$ ) represents an older stage (3).
$\mathbf{n}$ : naed could perhaps be explained as a mistake for nead (and gaer for gear), but such forms hardly fit into Anglian or even Northumbrian surroundings. Therefore ae will rather have to be explained as rendering / $\bar{\varepsilon} /$ (nede, gèr), cf. Aed- in the Moore MS. of Bede's Historia Ecclesiastica (4).
$j$ : for gaer cf. under $\mathbf{n}$ and $\mathbf{r}$. The equivalent $g g$ is quite puzzling. The double spelling of $g$ may of course be accidental : a reader may have written a second $g$ by way of a probatio pennae or for some other reason, cf. coscos (for cos, i. e. oos) in Vatican. MS. Regin. lat. 338. von Grienberger believed it was imitated from $u u=w$, but he gives no reason why precisely $g$ should be doubled. We met $g g$ and $d d$ in Oxford MS. St. John's College 17 ; the explanation tentatively offered for those two cases, viz. Celtic influence, may also hold here, although there is no such striking similarity between the Vienna fuporc and that in the Oxford manuscript as to allow one to connect the two (5). Yet, if the isolated $g g$ of the Vienna manuscript is not to remain problematic, we have to account for it in
(1) E. Survers-K. Brunner, Altengliche Grammatik, §§ 9I A. 8, it A. 8 .
(z) E. Sigvish-K. Brunnrer, Altenglische Grammatik, § 171 A. I.

(still less of ae) as a late variant for za (Emes, iry. The explanation of a
 (5) The two manuscripts also have notce ssans impossible.
hood of the runes; but those cryptic devices arce found so to it the neighbourhardly be considered conclusive.
the same way as for that in the Oxford codex : the Vienna fuporc probably goes back to a very old original, where such archaic features may well have occurred (1).
: the name ih (without breaking) is an Anglian form corresponding to WS. eoh (z).
p: cf. $\mathbf{p}$.
$\mathbf{x}$ : the name ilcs seems to correspond to ilx in Oxford MS. St. John's College 17, unless cs be interpreted as an error for ix; the latter explanation would at the same time for $i x$; the latter explanation account for the unique $c s$ spelling.
$s$ : for the $i$ in sygil, cf. under $h$.
b, e: berc without breaking is an Anglian form; the same applies to the name of the $e$-rune (3).
d : cf. under $\mathbf{r}$.
$\boldsymbol{\alpha}$ : the name oedil has the normal Anglian form; for $-i l$ cf. under $\mathbf{h}$.
ea: eor is an interesting variant for the more common name ear; it points to a Northern origin (4).
There can be no doubt that the prototype of the Vienna fuborc came from Northern England, and that it was considerably older than the tenth century copy that has come down to us. Linguistically speaking there is nothing against dating it in the eighth century. Consequently there is a possibility that Alcuin acted as an intermediary, although I hardly believe that something like $i \& x$ can be ascribed to him. Therefore that something like $i$ a $x$ can authorship should not be considered as more than a Alcuin's authorship should not be considered the inconsistencies in the (I) Miss Blompris. rightly calls attention of Gothic $j$ (" genuit ") and Gothic material : the note be contradicted by the letter-names gaar ( $=j$ ) and geuua $(=g$ ). Even if the Gothic material and me nerhaps throw some light on the same level, an analysis of the former may pernaps the
on the latter. (2) Hence there is no reason for providing this form with the asterisk of reconstructed forms, as e.g. in E. SIEvers-K. Bromal
$\$ 250$ A. z.
(3) E. Sievers-K. Brunner, Allenratik I, §119, specifies: 'South North(4) K. L.
bare possibility. If more certainty could be gained concerning the authorship of the Orthographia brevis and the relationship of the various items contained in fols. $1-20$ of the Vienna manuscript, we could perhaps come to a safer attribution. But for the time being we must not forget that there were many more Englishmen of Northumbrian descent on the Continent than the one Alcuin; some or other obscure scholar may have had more time to dabble in such curiosa. Nor should we lose sight of the fact that the fuporc may even be older than Alcuin's arrival on the Continent.
6. Brussels, Koninklijke Bibliotheek, MS. 935 -93r9 (saec. IX).

The runes of this manuscript were discovered by U. F. Kopp, and communicated to W. Grimm, who edited them in his Deutsche Runen (1); they were edited again by F. Mone (2). But the only full account, that by G. C. van Langenhove (3), seems to have received very little attention.
The origin of the codex is unknown. During the seventeenth and eighteenth centuries it belonged to the library of the Jesuit community in Antwerp, where its pressmark was W. 180: "Bibliothecae PP. Societatis Iesu Domus Professa
(1) U. F. Kopp, Palaengraphia critica. Mannheim, 1817-1821, I, 316.
W. Grimm, Ueber deutsche Runen, 147 f. and Tab. II.
(i) F. J. MoNs, Quellen und Forschungen, 552 f., and facsimile no. I (p.155). Grimm's information came from Paris, whilst Mone saw the manuscript in Brussels. Owing to a couple of divergences between his facsimile and
Grimm's, Mons did not venture to conclude that the 'Paris MS.' and the 'Grimm's, Mons did not venture to conclude that the 'Paris MS.' and the Brussels MS." were identical, although he was aware of that possibility:
"Vergleicht man diese Runen mit der Isidorischen aus einer Pariser HS. bei Grimm (...), so springt ihre Gleichheit in die Augen und zeigt eine bei Grimm (...), so springt ihre Gleichheit in die Augen und zeigt eine
gemeinsame Quelle. Ungtücklicherweise ist die Brüsseler Hs. an demselben gemeinsame Quelle. die Pariser, im Ubrigen gibt sie einige Ergamzungen, die ich anzeige …" (footnote:) "Ich sollte glauben (nach Grimm S. 147) dies sey dieselbe HS. mit der Pariser, denn die Gleichheit ist zau auffallend, nur stimmt Kopp's Abzeichnung nicht mit meinem facsimile, und nach Antwerpen ist keine Hs. des Isidor von Paris zurückgegeben worden. Die Briusseler aber war wirklich in Paris. Sind beide Hs. eins, so nehme man meine aber war wirkich in Paris. Sind beide his. eins, so nehme
Nachricht fir eine Berichtigung der Koppischen Abzeichnuag".
(3) G. C. van Langenhove, Bruselsche Runen. 1. De Isidori Runen. Acadérmie Royale de Belgique. Bulletins de la Classe des Lettres et des Sciences Morales et Politiques 1923, 214-238.

Antuerpiensis Ludouicus Nonnius Medicinae Doctor observantiæ testandæ ergo L.M.D.D." (on initial parchment fly-leaf). Ludovicus Nonnius, or Nunnez, physician, naturalist, Latin author and poet (born in Antwerp ca. 1553), may have had the manuscript from his father, Alvarez Nunnez professor in the University of Leuven. From a letter pasted on the initial fly-leaf, it appears that Nonnius jr. showed the manuscript to Heribertus Roswey, the famous Jesuit controversialist and precursor of Bollandus in the field of hagiography (Utrecht 1569-Antwerp 1629) (cf. infra). During the French occupation of Belgium the manuscript was sent to Paris, but after Napoleon's fall it was returned and incorporated in the Royal Library under no. 155 . When the inventary of this library was made, it was listed as no. 9311-9319. There seem to be some indications that it was written in Germany (cf. infra).

Modern calf binding, stamped in gold; on the back : JSIDORI / OPERA \& c. / X. SECC. / arms of Belgium / (shield with) $931 \times-19$ / BIBL. ROYALE. Strong, rather heavy parchment, well preserved but showing traces ROYALE. Strong, rather heavy parchment, well preserved but showing traces of much handling on the first and last leaves. An older binding with one
clasp (?) left traces (rust) on the first three leaves. Ca. $335 \times 215 \mathrm{~mm}$ (written area ca. $260 \times 155 / 160 \mathrm{~mm}$ [marked double left and right $:+2 \times$ $9 \mathrm{~mm}]$ ). The codex is made up of several parts, though Marchal's implica tion, viz. that it consists of nine fragments (hence the no. $9311-9319$ ), is not borne out by the codex itself : fols. 4-27 form three quaternions matked 'a' $c$ '; fols. $37-116=$ ten quaternions marked ' I' - ' X '. The composition of the manuscript may be summarized as follows
1 fly-leaf (formerly pasted onto the binding) $+1(+x)[1-3]+3$ IV [4 $27]+\mathrm{IV}(+1)[28-36]+11 \mathrm{IV}[37-124]+\mathrm{II}(+2)[125-130] ; 130^{v}$ was at one time pasted onto the binding.
Part of the text is missing after fol. 36 ( $3^{6}$ : "Desunt duo capita quae habentur in Parisiensi editione anni 1600 "). Written by a great number of different hands, all (except fol. 1-2?) fairly contemporary. Roswey (1) dated the codex "antiquus ... supra annos, ni fallor, quingentos", which dated the codex antiquus . . supra annos, ni fallor, quingentos , which dated it tentatively saec. VIII (?). In view of the undeniable archaic features, van den Gheyn's date : saec. IX (2) may be adopted, with a preference for IX ${ }^{1}$ No marks of origin seem to have survived; according to van den Gheyn the musical accents accompanying a couplet found in the upper margin of fol.
(1) In the letter pasted onto the initial fly-leaf.
(2) J. van den Ghern, Catalogue des mamuscrits de la Bibliotheque Royale de Belgique II (1902), 272 f .
Cf. also H. Bekson, Isidorstudien, 26, 32, 34, 35, 52, 71, 119.
$125^{r}$, would point to a German origin ( I . In some parts of the text we find traces of an Irish ancestor : fol. $3^{36}$ possitionem, $67^{r}$ DE NATURA RENUM,
$88^{r}$ possitione, possicione, $80^{\circ}{ }^{\circ}$ An $8^{88^{7}}$ possitione, possicione, $89^{\circ}$ Assia, and the confusion of ${ }^{\circ}$. (Ociani, adepiscenda, Sufonias, Zorobabil, Iohannis, zelotis, decim $i$, o and $u$ columna, insignes socius, Erupa [ = Europa,] geumetrica, etc.) Contents (2):
fols. $\mathrm{I}^{\mathrm{r}}-\mathbf{-}^{\mathrm{v}}:$ A list of Tironian notes with their meaning (partly not filled in) in 3 or 4 columns; originally ruled for 26 ll , but this ruling was disregarded, and there are 27-32 11. to the page. Dated by IX in.
$3^{r}$ Hymn to the Virgin Mary, written by a curious untrained hand.
$3^{v}$ A fuporc, etc. (cf. infra) $3^{v}$ A fupore, etc. (cf. infra).
$4^{\mathrm{r}}$ Isidorus, De officiis.
$37^{1}$ Id., Liber proemiorum de libris novi ac veteris testamenti
$45^{\text {r }}$ Id., Vita vel obitus sanctorum qui in Domino precesserunt.
$57^{\mathrm{r}}$ Id., Allegoriae in sacram scripturam.
$6 \mathbf{7}^{\mathrm{T}}$ Id., De natura
${ }^{67}$ Id., De natura rerum.
${ }^{90^{r}}$ Id., Differentiaue.
$107^{*}$ Id., De solestitio.
$\begin{array}{ll}107 \\ 17^{\top} & \text { Id., De proprietate sermonum vel rerum } \\ & \end{array}$
${ }_{124^{\mathrm{r}}}{ }^{\mathrm{r}}$ Id., Doctrina et fides ecclesiastica.
${ }^{128^{v}}$ Synonyma Ciceronis.
Fol. $3^{\mathrm{v}}$ is arranged as follows :
Originally the lower half of the page contained a table, being a square divided into 25 by 27 (?) columns; in the small squares thus formed (about 3 mm square), letters were written, but at a later date all this was erased; only a few letters $([\ldots] r q[\ldots])$ in the first line are still visible. The table may have had some computistical meaning, or may have been an acrostic poem (4). To the right of this
table, and going from the top to the bottom of the page (1) A gloss nacke ( $=$ vertex mistaken for cervix ) on fol. $128{ }^{1}$ seems to
confirm van den Gheyn's assumption; similarly on fol and sospis: helf or helffefr, and between obscenosus fol. 130r, between saluus The handwriting of the rune-names reminded Prof, B impudicus: $f u=f u l y$ of the scriptorium of St. Oyan (Jura).
(2) Cf. J. van den Gheyn, Catalogue
W. Schmitz,

132; Id., Studien శur lateinischen Tactorgraphen (Lipsie, 1893), 9, tab. 131 des Kaiser Wilhelm-Gymnasiums zu Köln, XIII. Schuliahr (4) The former explanation is the more probable, of. the tibl lunae in alphabeta distincta" in BkDr, De temponam ratione, ed. C We "Aetas Bedae Opera de temporibus, 225
(the page being turned $90^{\circ}$ to the left) there is a fuporc, full details of which are given infra. To the upper left of this fuporc a fourteenth century hand added a table of the contents, probably at the time when the volume was (first?) bound together ( I ).
The structure of the manuscript does not allow us to connect the runes with Isidore's works, as their presence in the same codex is entirely accidental. The inclusion of the runes may have been prompted rather by the preceding Tironian notes than by any of Isidore's works found here (2).

The fuporc is not a careless addition of the probatio pennae sort. The runes are carefully, if not always skillfully drawn. Their size varies between 6 and 18 mm . The folio (single leaf) on which they were written must originally have been higher, but in the act of binding the lower margin was removed, resulting in the loss of at least part of two runes. What is left shows the following arrangement (plate IV b):

1) The runes $f$ to $æ$, with above each rune its name, and below its value. Of the last rune only the vertical shaft is left, of the name only the first letter (e), and of the letter which once indicated the value (a) only part remains.
2) Below the last three runes of this first line there are three more and part of a fourth; to the left of the first there is a small x-cross, possibly a mark of reference. No names are given for these four runes; only their equivalents are
(1) In hoc uolumine continentur hec. Ysidorus de / ecclesiasticis officijs. Idem de ordinibus ecclesiasticis. / Item liber proemionum. de libris nouj ac ueteris / testamenti. Item de ujita uel obitu sametorum. qui / in domino preces serunt. + fin the margin, ryth cenlury: + Allegorix / sacre scripturee] Iteom liber ysidori de / natura rerum. Itemn differentie ysidori / epascopi - junioris monum uel rerum. Item / diffnitio ecclesissticorum docmotum [read dogmatum]. Item / glose spinitales jurta eucherium episcopum. / Item sinonima ciceronis.
(2) Consequently the Brusels manuscript cannot be compared with St. Gall MS. 878 (cf. p. $8_{3}$ ), where the runes are found immediately after an extract MS. 878 (cf. p. 83 , where the runes are found immediately after an extract
from Isidore's Etymologiue, precisely the chapter De litteris (I, iii). ArNTz's statement: "Ebenso ist in Brüssel das Fupork in die Isidoriberiieferung geraten" (Runen und Runennamen, 190) can only lead to unwarranted generalizations.
66
written below them. The fourth rune was $\overline{\mathbf{g}}$; it was cu through half; the letter indicating its value $(g)$ was preserved Closer inspection shows that two scribes may be responsible or the runic material : the hand of the rune-names is firmer and heavier than that which wrote the values; it uses only open a whilst the latter has the normal minuscule $a$ ) and has on the whole a more archaic appearance than the other hand (r). The runes, too, show differences: those on the first line are drawn in a leisurely way, the downstrokes being obtained by passing twice or more over the same line; the runes in the second line show a simpler and more hurried (though perhaps also a more skillful) technique. If we assume that two (and not three) scribes were at work, A may have written the first line of runes + their names, and B the additional runes + all he equivalents (2).
Since the change in the technique of rune-drawing coincides with the break in the fuporc (i. e. where the lower margin was trimmed), several questions arise : did the runes of the second line belong to the fupore from the very beginning, or did it originally end with .the $x$-rune? How many runes written by A were lost ? Did B copy his runes from the strip of parchment that was cut away? The order of the additional $O E$. runes, which should normally help us to answer these questions, is not beyond doubt itself. As far as the ea-rune, the order corresponds to that of the Thames scramasax, of Cotton MSS Domitian A 9 and Galba A 2 as well as to that of the isruna manuscripts. But all other fuporcs either have twenty-eight runes (i. e. they include a, $\boldsymbol{x}, \mathrm{y}$ and ea), or add not only and $\tilde{\mathbf{g}}$, as the Brussels fuporc does, but also $\bar{j}$, st and $\mathbf{q}$. Yet this does not necessarily mean that these three runes were once found in the Brussels manuscript : st is hardly used in English fuborc followed $\mathbf{q}$ never; the use of $\mathbf{j}$ too is rather rare. If the fuporc followed epigraphical usage, it may never have had more than thirty runes ( $\mathbf{f}-\overline{\mathbf{g}}$ ), or 31 if we count $\bar{j}$.

## (1) E.g. the ligatures in pert and berc.

$A_{i}$ added the names. But this distinction may have drawn the runes to which us any further, except perthaps istinction is not necessary, and does not lead

It is possible that all the runes were originally written in one line; the page having been trimmed so as to drop all runes beyond $\boldsymbol{x}, \mathrm{B}$ would then have added them below that first line, indicating by $\mathbf{x}$ that they were to come after $\mathfrak{x}$. A second trimming then resulted in the loss of part of the two last runes, $x$ and $g$, and of the reference mark after $\boldsymbol{x}$. It is not probable that B copied the runes from the strip removed at the first trimming, as he would then have included the names as well. So either of two possibilities remain :
(1) A only wrote the runes $\mathbf{f}-\boldsymbol{x} ; \mathrm{B}$ added $\mathbf{y}-\overline{\mathbf{g}}$; the folio was curtailed only once; or
(2) A wrote a fuporc of thirty or thirty-one runes, the last four or five runes of which were lost; B reinserted the missing runes, after which the folio was trimmed a second time.
In judging the readings given in older editions, we have to keep in mind that at one time the runic material could be read keep in mind difficulty. One of the first readers made an unfortunate attempt to facilitate the reading by the application of a reagent. The result was that later readers found the writing much obscured. van Langenhove had the worst stains removed (I) and now practically all the readings are certain. The fuporc has the following runes, names and values:


Notes (2):
b: for the name Kopp-Grimm read than, all later editors thorn: : the value $c$ is written over an erasure, and so are the values of the next three or four runes. Careful examination (1) G. C. van Langenhove, Tridori Rumen, 214.
(1) C. C. vNN Langenhove, Irudori Rumen, 214 , ${ }^{\text {(2) }}$ Cf. G. C. van Langenhove, Isidori Runen, 222 f., as well as Grmm's and MoNR's editions.
shows that the scribe at first skipped this $c$, writing $g$ below the rune $\mathbf{c}, u \boldsymbol{u}$ below $\mathrm{g}, \boldsymbol{h}$ below $\mathbf{w}, n$ below $\mathbf{h}$ (and also $i$ below $n$ ?); to the left and right of $g$ there are traces of $u u$, and above $u u$ a rest of $h$. The scribe must have noticed his mistake when he came to i , and then made good his oversight.
$\mathbf{w}$ : the name of the w-rune caused considerable trouble to van Langenhove. He supposed that the scribe heard a final palatal $n$ ( $\mathrm{OE} . \mathrm{wyn}$ ) as $\mathrm{g} / \mathrm{g} /$ and therefore wrote $n g$. But since there is no other convincing example of a form being based on dictation, we must leave the origin of uung undecided ( I ).
$h$ : the name of this rune has given rise to some discussion. At one time or other the name must have read hagal, but the first letter was either partly erased, or written over an erasure (with the result that part of it was lost again). The first possibility is a priori the least probable. It is true that scribe A had some trouble with $h$ (cf. the name of $e$, hec; and hinc above ©e), but there seems to be no special reason why he should have erased the initial $h$ of hagal. There are, to be sure, examples of a name agal, or rather agalc, in Paris MS. 5239 and Strasbourg MS. 326, but our fupore has no important features in common with the runic alphabets where this form without $h$ is found. Therefore I have kept the reading hagal (2).
$\mathbf{n}$ : to the right of the first $n$-rune a second one has been added in a lighter ink. It is also possible that the latter rune was written first but, being not well placed below its name, was wiped out again. The $o$ of the name is partly hidden by a fold in the parchment.
i: unlike the preceding runes, this rune and the next have
(x) It will hardly do to connect this form with OE. wong, wang, or even with OHG. samy.
(2) The erasing of this $h$ may perhaps be connected with the corrections in the list of values. Perhaps $B$ began to change the name of $b$ to make it fit the erroneous value he had written below the rune, then realized his mistake, restored the reading hagal and corrected the values for the runes $\mathbf{c}-\mathbf{b}$.
two names. van Langenhove supposes that the iar above the rune is a Continental rendering of OE. gear; ger would be a Continental (OS. ?) word serving as an example. I believe such a reconstruction is unnecessary: iar may either be a Continental Gmc. form of the word 'year', or, less probably, the iar we find in some English fuporcs (Cotton MS. Otho B 10; cf. ior in Cotton MS. Galba A 2, ian in Vienna MS. 751); the form below the rune is simply non-WS. ger ( r ).
3: the first scribe seems to have had quite some trouble in assigning the right names to the right runes. Thus he wrote inc above 3 , hinc above $\propto$, odil above $y$ (the latter two runes also changed places). $B$ corrected the first mistake, writing ih below the rune; but in the remaining two cases he was misled by A's error (cf. infra). The name inc was so read by Grimm, whilst Mone proposed hic; van Langenhove doubted both readings, and proposed to interpret the word as reflecting OE. iw, a variant form for eoh (2). When examining the manuscript myself, I could only read inc. This reading, of course, somehow conflicts with the name hinc above the oe-rune, but I see no other possibility.
$p$ : the name of the rune is much obscured by the old reagent, but no doubt seems possible : we have to read pert.
$\mathbf{x}$ : part of the name ilix, too, is obscured by old stains, but the reading is not doubtful.
$t$ : above the $t$ of the name $t i$ there is a short horizontal stroke, which van Langenhove tentatively proposed to interpret as an abbreviation mark, especially in view of the form tir found in several other fuporcs. I believe the stroke to be accidental, and so is the $i$-like mark after the $t$ indicating the value (neither does van Langenhove attach any meaning to the latter).
e: Grimm read the name as het, Mone, followed by Stephens,
(1) E. Sievers-K. Brunner, Altenglische Grammatik, §or b.
(1) E. Sievers-K. Brunner, Altenglische Grammatik, §9I b.
(2) E. Sigvers-K. Brunnkr, Altenglische Grammatik, §§ 234 A. 3, 250 A. 2. 70
as $h x y$ or $h x ;$ van Langenhove accepted Grimm's reading. Actually the name consists of $h$ followed by a ligature of $e$ with another letter. In view of the preceding name berc (where the last three letters form a ligature), I believe the ligature may rather be interpreted as ec than as $e t$ consequently we have to read the name of the rune hec. This form may go back to ech.
1: after the page had been subjected to the treatment mentioned by van Langenhove, it appeared clearly that the name of this rune should not be read lag (Grimm, Mone), but lago.
⿹, $\propto:$ : rune no. 22 is obviously an $\propto$-rune, as we may also infer from the occurrence of the $\eta$-rune in the 24th place. The name and value, however, are given as hinc and in. This may suggest that scribe $A$ was in fact not one, but two different persons : $A_{1}$ drew the runes, and mistook $\mathfrak{y}$ for $\propto ; A_{2}$ added the names, and overlooking $A_{1}$ 's mistake, inserted hinc and odil in the right places among the names (but consequently over the wrong runes); B agrees with $\mathrm{A}_{2}$. To explain the name hinc we may simply refer to the scribe's hesitation about initial $h$ (cf. hec; [h]agal?), but there may be more to this form. In the isruna group we shall find a variant $\eta$-rune, and that same rune will turn up with the value $h$ in runic'alphabets; we already met it as a variant for $h$ in Cotton MS. Domitian A 9. This may perhaps explain why the Brussels manuscript has
both inc and hinc. both inc and hinc.
No. 24 is the usual English y. The name is obscured by a darker spot in the stains left by the reagent. It seems to have caused some trouble as early as Mone's time. Kopp-Grimm had read odil; the form in Mone's facsimile was interpreted as odil by Kirchhoff (1), but Stephens read othl. van Langenhove himself read othl in the manuscript. The difficulty lies in the fact that $o$ forms a ligature with the following letter. A comparison with the name rad shows that the second letter is $d$, the loop of which
(1) A. КиrchноғF, Das gothische Runenalphabet, 27.
sets in rather high and is left open precisely to form the ligature with the preceding $o$. What Stephens and van Langenhove read as $h$ is the vertical shaft of $d$ followed by $i$.
$x$ : of the rune only the vertical shaft remains, of the name only part of an $e$, of the value, part of an $a$.
$\mathbf{y}$ : Mone's facsimile led Stephens to consider the $y$ below the rune as part of the rune, the whole being "doubtless $Q$ ".
ea: the value eo can hardly have been transferred hither from the rune 3 , since the latter has a correct ih below it; eo must then be a variant of ea, cf. Vienna MS. 795, where the name of this rune reads eor.
$\overline{\mathbf{g}}$ : of the gar-rune only the left half remains, with the value $g$ below it. The rune shows the epigraphical type, not the usual English manuscript type, i. e. a square crossed by two intersecting strokes.
On the basis of his discussion of the runic material, van Langenhove concluded
(1) the runes and the names are of English origin, although the text affords too few data to decide to which dialect the prototype belonged.
(2) the names are the outcome of a Continental scribe's attempt to render the English names dictated to him.
(3) this scribe was probably a German, but it is not possible to decide whether his own dialect was Middle Franconian, Low Franconian or even Saxon.

About the first point, I believe, there-cannot be the slightest doubt. The fuporc includes such typically English features as the runes $0, \mathfrak{j}$, and the additional runes; such names as os, rad, ken, inc, sigil, ti, lago, ac can only be English. Perhaps it is not impossible to determine the basic dialect as well. The forms fech, pert, berc and hec (if $={ }^{*}$ ech) point to an Anglian prototype (x); e[sc] may imply a restriction to Mercia, corroborated by eo for ea (2). On the other hand there is the un-
(I) E. Sisvegs-K. Brounnkr, Allenglische Grammatik, $\$ \$$ 129, 120. (z) E. SIIvkres-K. Brunngr, Aleengliche Grammatik, $\$ \$ 52,35$.
deniable Continental influence : not $=$ OE. nied, nead, ned; hagal $=h x g l, h e g l ;$ odil $=\alpha p e l ; d a g=d x g, d e g . \quad$ The names thorn and ken may reflect Continental orthography, but could be English as well; geuo is rather an adaptation of gefu (cf. infra). Such translations as not, odil, dag seem to contradict van Langenhove's assumption that the names were written under dictation they rather result from a conscious effort to substitute Continental forms for the English rune-names. The forms not, odil, dag, and also thorn if the form of that word corresponded to the scribe's dialect, may prove that the scribe was familiar with Franconian, and, if we may.judge from geuo, with Middle or even Low Franconian (I).
Thus far we have made no distinction between the language of $A$ and that of $B$ (or of their prototypes). As a rule B preserves the OE. character of his material far better than $A$, so much so that if his handwritting were no pure Carolingean minuscule, one would not hesitate to declare him an Anglo-Saxon: Of course names could easily be translated, whilst values would rather be copied mechanically (odil:oe e. g.), but even the two names which B writes out retain the regular OE. form ( $\mathrm{ger}, \mathrm{ih}$ )
The prehistory of this fuporc must be rather involved, at least to judge from A's part. His exemplar may have been poor in places; or else he wrote from memory. The latter assumption would explain such forms as uung, hinc, hec, and the errors in the order of the runes more easily than van Langenhove's hypothetical dictation
On the whole the importance of this fuporc lies especially in the adaptation to Continental phonology. Only the evidence which B provides appears to be genuine.
7. St. Gall, Stiftsbibliothek, MS. 878 (saec. IX med.).

With Vienna MS. 795 this is the best known manuscript with runes. It has been studied mainly on account of the Abecedarium nord(mannicum), a doggerel poem on the runes of the shorter Norse fupark; written in a curious mixture of

[^4]Low and High German (1). As for the time being we are only concerned with the English runes, this Abecedarium will not be discussed in detail; our attention will in the first place go to the English fuporc which precedes it in the manuscript.
MS. 878 does not belong to the old St. Gall stock : in 1457 it seems to have belonged to the Cathedral Library in Chur, afterwards to the Glarus historian, jurist and politician Aegidius Tschudi, from whose estate it came to the Abbey Library. Its importance has certainly not diminished since B. Bischoff identified the scribe of the major part of the codex with nobody less than Walahfrid Strabo : MS. 878 would in fact be a sort of vademecum compiled by Strabo over a considerable length of time (2).
Modern binding, brown leather back and corners, greyish blue paper over boards, with the inscription : Grammatica [A]rithmetica venera. Beda. Grammat. Prisciani. Philosophica. Medica. Historia. etc. 878. Parchment of unequal
 numbered ' 1 ' to ' 394 ' ( ' 16 ' occurs twice, ' 383 ' has been skippet) and arranged as follows :

2 papers fly-leaves $[1-4]+111\left[5-16^{2}\right]+\mathbf{I V}(+1)\left[1^{26}-33\right]+18$ IV $[34-321]+\mathrm{IV}(+\mathrm{I})[322-339]+1$
$(+\mathrm{I})[368-38 \mathrm{r}]+\mathrm{III}[382-394]$.
The old quire marks show that one quire is missing between pp. 177 and 178 : 65 'IIII', 113 'VII', 129 'VIII', 177 ' XI ', 193 ' XIII ', 209 ' XIIII ', 225 ' XV ', 24 I ' XVI ', 273 ' XVIII ', 289 ' XVIIII ', 321 ' XXI '. The manuscript is made up of five parts, in this chronological order : 178 ff ., 5 ff .
(1) Cf. int. at.:
W. Grimm, Ueber deutsche Runten, 138 ff.; Tab. II.

Io., Zurr Litteratur der Runen, 26 ff . $=$ Kl. Schriften III, iII ff
H. Massmanv, Noue Runen, 32.
H. Hattrake, Denkmahle 1, 417 f., Taf. I
G. Strphens, Monuments I, 100 f., no. 6.
F. Dietrick, Fünf northumbrishe Runenspriche. 5. Die Runnenverse des St. Galler Codex 878. Z. f. d. A. 14 (1869), 119-123.
(K.) MOLuenhorf, Uber das Abecedarium Nordmannicum. Ibid., 123 -133. P. Pprge, Aus Sanct Galler Handschriften III. Z. f. d. Ph. 13 ( $\mathbf{1 8 8 2}$ ), 445 ff. K. Moiluniofo-W. Schrrer, Denkmíler I, no. V; II, 55 ff.
I. H. GAıLAs, Altsaechsische Sprachderkmaeler, 263 fff; Taf. XII $a$-XIIb.
J. WADstisin, Kleinere altsüchische Sprachdenkmaler, 20, 129 ff.
G. Bnsegcks, Das Abecedarium Nordmannicum, and most general works on runology.
(z) B. Bischoff, Eine Sammelhandschrift Walahfrid Strabos (Cod. Sangall. 878). In : Aus der Welt des Buchers. Festgabe ... Georg Leyh ( $=$ Zentralblatt für Bibliothekswesen, Beiheft 75) Leipzig, 1950, 30-48.

242 ff., 322 ff., 352 ff. So $p .321$ must for some time have been the last page. Format ca. $210 \times 137 \mathrm{~mm}$ (written area $160 \times$ roo mmm); 33 lines to the
page. The manuscript has ber page. The manuscript has been assigned to various dates : the beginning of ssec. IX (v. Arx), XIXIII (Scherrer), IX ex. and later (Breckiner), IX:
(Lehmann), whilst Momansen and quite reenty to a note on an earthquake in 849 as a starting point for called attention A great many hands wrote more orless extensive parts of this code this codex. them Bischoff distinguished four stadia of the same hand, which added Amongst by and by with intervals of several years. He believes this hand to material hand would Strabo, on the whole, I think, on convincing grounds. To that 260-265, 324-328, 240-241, 243, 277-307, 35, 34-3550; W IV: 43-47, 77-95, 168-171, 172--776

## Contents (2) :

P. 5 Donatus minor, and other grammatical extracts.
${ }^{50}$ Donatus maior
82 De XII uitiis; 83 De metaplatismo; 80 De soloecismo; 82 De XII uitiis; 83 De metaplasmo; 85 De schematibus: 86 De ${ }^{\text {tropis. }}$
${ }^{131}$ Bede, De arte metrica.
$\begin{array}{ll}\text { 131 } & \text { Bede, De schematibus et tropis. } \\ \times 48 & \text { Priscian, Institutio de noming }\end{array}$
${ }_{170}$ Grammatical extracts; Isidet uerbo.
signis (poem).
Hrabanus Mau
242 Bede, De naturas, De computo.
262 Bede, Liber de terum.
277 (below, title )
278 Adbreuiatio :) Exronicae; Com de libro Albini magistri (no tex
303- Excerpts from Oro ; Computistical extracts.
Epist. 73. From Orosius, Cassiodorus's Historiae, and Jerome
315 Excerpts from Isidore's Etymologiae: De accentibus; accentuum; De posituris; De litteris.
A Hebrew alphabet; a Greek alphabet; "Anguliscum $=$ a fupor Abecedarium nord(mannicum).
32-23, 340-44 Disputatio de uera philosophia Albini magistri $=$
Alcuin, Grammatica Calendar for Fulda.
ad Antiochum et Antonium; 331 Recipes; 327 Epistola Ipogratis Epistola Karoli regis ad Albinum Mecipes (with OHG. glosses), etc. 44 Computistical items ; 351 Magistrum
352 Epistola Antimi medici
Titum imperatorem et ad Teodericum 66 On bloodletting; uino dulce faciendo; 373 De mélancolia; 37 正, de pomis; 370 De (1) For full details cf. B. Bischorf, Eine Sammelhandschrift, 34 ff,
anni ut incolomitas custodiatur; 375 Hippocrates archiater Antigono regi.
378 Excerptum ex storia ecclesiastica; 380 Excerpt from Orosius.
392 Confectio antidoti quod dicitur potio amara, and other recipes; 394 later additions (r2th century).
There can be no doubt that the runic material has some connexion with the grammatical material of the preceding pages. Grammar takes an important part in this vademecum, which covers a wide range of other subjects as well (rhetoric, computus, history, medicine, natural history). The series of extracts from Isidore ends with De litteris, i. e. on the alphabets of the three 'sacred languages', Hebrew, Greek and Latin (corresponding to Etymologiae I, iii, 4 etc.) On p. 320 it is immediately followed by HEBRAICE LITTERE (1. 22) and a Hebrew alphabet with the names of the letters (11. 23-30). This alphabet is remarkably genuine, especially if one considers that this period derived its knowledge of Hebrew mainly. from more or less trustworthy copies of Jerome's works. For a number of letters variant forms are given (kaf, mem, nun, pe, zadi). It would not be surprising if this alphabet could be traced to one of those learned Jews who sometimes assisted Christian theologians in their exegetic work ( 1 ).

Much of this alphabet is hard to read because the reagent applied on the next page has penetrated through the parchment and caused stains both in the preceding text and in the Hebrew alphabet. As was pointed out before, p. 321 was for some time the last page of the manuscript, and so the writing on it suffered in places; especially the text of the interesting Abecedarium nord(mannicum) had become faded by the beginning of the nineteenth century. Between 1821 and 1828 the then keeper of the St. Gall manuscripts, I. von Arx, treated it with a reagen which for the time being made the faded letters legible ( 2 ),
(1) M. Manirius, Geschichte I, 290, 294.
(2) G. Sckerrer, Verxeichniss, 308 "... I. von Arx lieferte 2 Facsimile's (ieser Stelle, eines i. J. 1821 für W. Grimm, Ueber deutsche Runen Gott. 1821, Taf. II (p. 138 und 140-147) und das zweite 1828 mit Anwendung von Reagentien für W. Grimm's Abh. z. Litt. d. Runen in Wiener Jahr. Bd. 43 und separat Wien 1828 p. 42 und $\mathbf{2 6 - 2 8}$ ". The recipe of the reagent used by von Arx is given by G. H. Pertz, Italiünische Reise, 511 f.
C.. J. H. Gallek, Altsaechsische Sprachdenkmaeler, Plate XII ${ }^{\mathbf{2}}$ : photograph, and XIIb: von Arx's copy.
but in the long run caused more or less dark stains (from brown to bluish black); in some places the original writing can hardly be made out (i). At the top of p. 321 there is a Greek alphabet with above each letter its numerical value and its name (II. $1-9$ ); this alphabet is announced on the last line of the preceding page: ALFABETUM GRECUM CUM NUMERO (1. 33). Ll. 10-11 show an erasure; nothing can be made out of the original text. Then follow Greek diphthongs, with their values shown above them: DIPTONG $A I$ (e), $E I$ (?), OY (u), OI (y), and three letters ( $S \Psi \uparrow$ ) with this text : isti tres cara[cteres] / ad numerum tantum per/tinent. The next line is again blank with perhaps an erasure about the middle. In 1.15 the inscription ANGULISCUM has been retraced with a darker sort of ink, and so may have been the three runic words at the end of the line. These words have also been treated by von Arx, but they can fortunately still be read with fair certainty (except the last two runes) :
ear eaK Ka[1c]

The runes of the fuporc are written in three rows, $\mathbf{f}-\mathbf{s}$ / $\mathbf{t}-\mathbf{j} / \overline{\mathbf{g}}$ and twelve more runes. The whole extends from 1. 17 to 23 . Another hand, using a lead pencil, copied the $y$-rune twice between the lines. A recent reader numbered the runes in the fuporc order; but after $19(=\mathbf{e})$ he skipped the $m$-rune, whilst after 21 ( y ) we find the figures 19 (d), 4 (œ), 9 (a), 22 (y), 23 (ea). This reader obviously knew something about runes: his second 4 , e. g., connects the rune $\propto$. with $o$ ( $=$ no. 4), probably because their values are related. But his knowledge of the runes cannot have been very profound. Because the runes $e$ and $d$ are somewhat similar in form, they both received no. 19. The 9 we find above a and must be explained in the same way : the ink of $h(=$ no. 9 ) had partly flaked off, and what was left looked rather like a. As a result $h, a$ and ae received the same number. von Arx applied his
(I) A photograph made with infrared rays brought out some more of the text than was visible on an ordinary photograph; but reading in bright daylight proved still more successful.
reagent to runes 2,3 and $14(\mathbf{u}, \mathbf{p}, \mathbf{p})$; therefore these three appear surrounded by dark stains.

On 1. 24 begins the much discussed ABECEDARIUM NORD[MANNICUM] (1). Much of it has become entirely or partly illegible; at any rate the reading of those letters or words which caused difficulty to von Arx is still at least as hard and uncertain as in his time, if not more. A number of English runes were added between the lines and for this reason the text must be given here. The contents, however, must be examined in connexion with Norse runica manuscripta. It is not possible to decide for sure whether the additional runes are due to the first scribe :
K

 cliuot
$\uparrow_{\text {tíu }} B_{\text {brica }} \hat{Y}_{\substack{\text { endi man } \\ \text { midi }}} \Gamma_{\text {lago the leohto }} \lambda_{\left.\text {yr al bihabet }{ }^{( }{ }^{2}\right)}^{A}$
Six English runes'are compared with their Norse equivalents : $\mathbf{f}, \mathbf{h}, \mathbf{n}, \mathbf{a}, \mathbf{m}$ and $\mathbf{y}$. Why the other OE. equivalents, esp. 0 and $\mathbf{c}$, were omitted, I fail to see. The runes below the (1) It looks as if even the application of the reagent did not allow von Arx to read more than the four letters NORD; now all the rest of the line is one dark blot. In it I believe to have been able to read the letters ICU, but chey seemed larger than the letters in the rest of the title and may haver
(z) I do not give a critical text, but those readings which have been most commonly accepted. This puzzling mixture of Low and High German will perhaps be more easily understood if it is examined from the angle of Walahfrid Strabo's part in this manuscript. A few remarks on the text : above the $u$-rune another hand wrote fe, but I could not make out whether at one time there was any text between this $f e$ and the upper $f$ at the beginning of the poem; above $p$ there seems to be a d; the first three letters of the last word look rathe like bah.

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beginning of the first line have variously been read as wreat, wreaw (von Arx), preal (Lachmann), preat (1). Of these the first and the last are the most probable readings. One more rune may have preceded $\mathbf{w}$ (or $\mathbf{p}$ ), but if so it is now impossible to decide which. Neither wreat nor preat are entirely satisfactory. The former has been interpreted as a form of the verb writan 'to write'; on account of the form uuritan in the first line of the Abecedarium this reading is rather attractive, but the vocalism can hardly be explained. On the other hand one fails to see why a word preat 'troop; violence; threat ' should have been written there. So all we learn from the Abecedarium is the confirmation of the value of six OE. runes, none of which seems ever to have been doubtful (2).
The three runic words which precede the fuporc may be read ear eaK Kalc. They call for several remarks. First of all, the runes are much smaller than those of the fuporc (only ca. 3 mm high); second, they may have been retraced in a darker sort of ink, just like the word ANGULISCUM on the same line-though the traces of the reagent make it difficult to decide this for sure. For obvious reasons it is equally difficult to decide whether they were written by the same hand as the fuporc; but there are reasons to believe they were. Another point of interest lies in the use of Roman $K$ in eak and kalc. The fuporc actually has a symbol for $k$, but it was not used here. As to the meaning of these three words, the first and the last are in all probability identical with the rune-names ear and calc (or kalc). I do not believe that the spelling ea in the former may be explained as the phonetic rendering of the English diphthong $\tilde{a} a$; it is more probable that these names arsimply English forms transcribed in runes. This leads to the conclusion that a Continental scholar was at work here : nowhere in the English tradition do we find the rune-names written in full with runes. The double occurrence of K may also betray a not very experienced rune-master. What eak means I fail
(1) K. Mollenhofr-W. Schrrkr, Denkmäler II, 56.
(2) On the other hand the fact that the ON. $y$ r-xune (i.e. R) is here equated to the English $y$-rune anticipates the later evolution in Denmark (after 1100); cf. L. Jacobsen-E. Moltke, Danmarks Runeindskrifter (Text), col. 980.
to see. It could be the English conjunction eac 'also', bu in its context one would rather expect another rune-name. Perhaps the original form was corrupted by the reader who retraced these runes.

The fuporc is firmly and on the whole carefully drawn. At first sight, however, one sees another hand at work from rune 38 on :


##  TEMAFXASFFATA

## $303132333435363738 \quad 39404142$



## Fic. 13

Runes 38-42 are in fact unskillful repetitions of runes in the fuporc, a sort of probatio pennae, except no. 40 , which is the regular OE. form for no. $\mathbf{1 5}$. One rune is too little to decide whether the author of these additions really wanted to record this variant, or whether this form arose accidentally.
Runes $32-37$, too, repeat runic forms from the fuporc, except no. 35, which is a Roman K similar to those in eak and kalc. Consequently nos. 32-37 may be read gar kur. The former is the name of rune 30 ; the latter may be compared with cur, the name of the new $q$-rune, in Cotton MS. Domitian A 9 (hand B); we shall meet it again in the isruna-group and, as qur, in Munich MS. 14436. In the fuporc, however, there seems to be no $q$-rune (that found in other fuporcs is either derived from the $p$-rune, or it is identical with the ear-rune). The names gar, kur, ear and kalk may have been the only names found by the compiler. Here we are reminded of Cotton MS. Domitian A 9 , where the first scribe only recorded the names of the last six runes (besides ing, where the value could not very well be 'abstracted' from the name).

The values of the runes are not indicated, but we may assume that the runes simply retain their original order. If so-and there is no indication of the contrary-only the more or less exceptional forms of a few runes require some comment.
15: in the purely English tradition, this type of $x$-rune does not seem to occur. It is found in Munich MSS. 14436 and 19410, Exeter MS: 3507, Cotton MS. Vitellius A 12 and Philipps MS. 3715 , i. e. in runic alphabets written on the Continent or probably originating there.
29: the rune $\mathbf{j}$ is very rare on the Continent ( r ), but the related j seems to have been more popular. Only Munich MS. 14436 has eor for $e$ and ios for $i$ in the same runic alphabet; at least the former goes back to the $\bar{j}$-rune.
30 : the $\bar{g}$-rune is of the epigraphical variety.
31 : it would be practically impossible to ascertain the value of this rune if, in Munich MS. 14436, it did not turn up with the name calc (its value $i$ in that manuscript must be due to a mistake). Otherwise this variant form of the rune $k$ is unknown. It probably arose from the type found on the Ruthwell cross (where it has straight lateral strokes), through the addition of two more lateral strokes.
We have then a fully developed fuporc; only $\mathbf{q}$ and st are missing, but these runes probably never reached the Continent (at least not in the manuscript tradition; st is known from Frisian inscriptions). Whether the form kur implies that some form of $q$-rune appeared in the prototype, we cannot make out, unless the variant $k$-form were in fact a $q$-rune; the third $\mathbf{q}$ variant in Oxford MS. St. John's College 17 may be a related form (quar). But the evidence of Munich MS. $1443^{6}$ seems sufficiently conclusive to settle the case : in the fuporc an equivalent for $k$ must have been meant.
Little can be said about the age of this fuporc. It may be a century older than the St. Gall manuscript, but for that we have no evidence. The sureness with which the runes were
(i) This relative rarity may have some connexion with the occurrence of the same form for $\boldsymbol{x}$; its resermblance to Roman X probably played a part in this matter.
drawn proves that this copy cannot be far removed from the English prototype
If these runes are really due to Strabo's hand, and they are certainly by the same scribe as the preceding pages, where could he have acquired this knowledge? He was born in 808 or 809 and entered the Abbey of Reichenau when still young (1). From 827 to 829 he studied in Fulda under Hrabanus Maurus. Walahfrid had a wide range of interests, as appears e. g. from his botanical poem Hortulus. In 829 he was called to the imperial court as preceptor to the young prince Charles; in 838 he became Abbot of Reichenau, from which he was expelled two years later, to return in 842 . He died in 849.
It is not impossible that Walahfrid had his runic lore from Fulda, that important centre of English culture founded under Boniface, or from some outpost of that famous abbey. There can be no doubt that the English fuporc was known in Fulda; some manuscripts written there use runes as reference marks. The inclusion of the Fulda calendar in St. Gall MS. 878 shows that Walahfrid began collecting his vademecum there, if not earlier. The Abecedarium nordmannicum, too, points to a region where Low and High German met; like the Hildebrandslied, it may have originated in Fulda. Its meaning as a whole has often been discussed, and is still not entirely settled; I believe, however, that more light could be gained if it were connected with missionary plans for Denmark or Sweden. Some knowledge of the runes would have been an important asset to a missionary setting out to work in the North (2). $\therefore$ I doubt, however, that Hrabanus was Strabo's mentor in runo-
(1) M. Manitius, Geschichte I, 302 ff.
B. Bischorf, Eine Sammelhandschnift, 41. Historische Zeitschrift 130 (1924), 377-439;
O. Hrrding, Zum Problem des Karolingischen "Humanismus", mit besonderer Rücksicht auf Walahfrid Strabo. Studium Generale I (1947/8), 389-397; G. Baesecke, Die Karlische Renaissance, 152, 173, 209.
(2) The early date of the manuscript need not be an obstacle : cf. B. NERMAN, En kristen mission pai Gotland vid tiden omkring àr 800 e. Kr. 9 Fornvinnen 1941, 30-40. The activity of Fulda in the missionary field is sull a mater of discussion : E. E. Stengel, Zur Frulhgeschiche sches Archiv für Erforschung des Mittelalters 9 (1952), 513 ff. (esp. 520).
logical matters : even if the tract De inventione litterarum may be attributed to the former, its runic lore is so inferior to Strabo's fuporc (and to the Abecedarium, for that matter), that one would expect the relationship to be the reverse (1). Cf. infra.

The English runes added interlinearly in the Abecedarium are the only instance of an actual comparison between the English and the Norse variety of runes. To be sure, they are found side by side in other manuscripts (e.g. Cotton MS. Galba A 2, Oxford MS. St. John's College 17), but nowhere else do we find undeniable proof that the two systems were compared in detail.

The fuporc of the St. Gall manuscript is of special importance on account of its context. The extracts from Isidore's chapter De litteris are precisely those which were used in compiling a short tract on alphabets and secret writing going under the title De inventione linguarum. Here the runes are really integrated into the system of Mediaeval learning : they are on one level with the Hebrew and the Greek alphabets. They have not yet received their own introductory notice, but the necessity of the latter will be felt as soon as Isidore's text will have been condensed and cut up into paragraphs, one for each alphabet. Therefore we may probably consider this part of Strabo's vademecum as a preliminary state of the De inventione text. We shall see that there is a special reason for doing so : the runic alphabet in De inventione is a mixture of English and Norse material, and such a mixture could only be composed where both runic systems were known. The possibility of De inventione having originated from Strabo's collection will be examined in the chapter on that tract (p. 377 f.).
8. Ghent, Universiteitsbibliotheek, MS. 306 (saec. X).

As far as I know the fragmentary fuporc in this manuscript has never been published. The manuscript originally belonged to the Abbey of St. Maximin near Trier, where it was no. 183i on fol. $I^{1}$ there is an older pressmark B. 7 ( $14^{\text {th }}$ century). It (1) On Strabo's interest in Gothic ef. p. 58, note (I).
came to Ghent about 1800 and first belonged to the private collection of P. Lammens, librarian, who gave it to the Town and University Library, afterwards University Library, in 1818.
Modern binding ('ANNO 1749 '), pressed white leather on boards, two clasps missing; on the back the inscription BEDA IIN PARA-/ SALAMO. clasps missing; on the back the inscription BEDAIIN PARA-/ SALAMO.
Rather heary and rough parchment, well preserved; a few margins (p. 57 f., Rather heavy and rough parchment, well preserved; a few margins (p. 57 .,
97 f., ixi f., 221 f .) have been partly or entirely cut away, probably to remove owner marks. The inf folios are marked ' 1 ' - 221 ' on the odd pages; 15 quires, mostly quatemions:
 180] +2 IV [ $18 \mathrm{Br}-212]+\mathrm{III}(-1)[213-222]$
Old quire marks indicate that the codex is made up of two parts ( 16 ' 1 ', 32 'II', $48^{\text {' }}$ III', 64 'IIII', 80 ' V ' but 142 ' q . III'). There can be no doubt, however, that these two parts were meant to form a unit : the number of lines, the ruling, etc. correspond exactly in the two parts; the yellow colour used to fill the capitals in the first part is also found on pp. 13 r and 133 in the second part.
Format $265 \times 200 \mathrm{~mm}$ (written area ca. 210-157), 32 lines to the page. Written by several hands, which de Saint-Genois ascribes to the late tenth century ( I . Some hands, however, show decidedly more archaic features, which require an earlier date. I do not believe that the writing can be dated later than IX. There are traces of insular infuence, e.g. in the abbreviaheve in Trier at an early dote. have been in Trier at an early date.

## Contents :

P. i-2 Ormamental pages.

On I a cross in a circle, with on it five smaller circles (in red, yellow, greyish blue and black); in the smaller circles the inscriptions $R R R$ (top), VVV (left), AAA (right), FFF (below), $L S P$ (middle), i. e. res Romanorum ruit, victor Vitalis veniet, aurum a nobis aufert, ferro frigore fame, ? (2). Under an arcade on a the inscription Si quis abstulerit anathema si. amen
A later hand ( $\mathbf{4} 4$ th century) added on I , by the side of the old pressmonis libri tres / bede de factura iempli Salomonis expositio allesorica. At the top: N. 183.
3 (no title) Bede, In parabolas Salomonis libri tres
.3 (no title) Bede, In parabolas Salomonis libring (no. 164).
123 Alcuin, Letter to Charlemagne (no.
(1) J. de Saint-Gunors, Catalogue méthodique et raisonné des mamuscrits de la bibliotheque de la ville et de l'universite de. Gand. Gand, $1849-1852$, 383 , no. 548.
(2) The first four groups are also found, with a full transcription, in Vienna MS. 751, fol. $39^{\circ}:$ cf. p. 200 f. and note (1). Around the circle there is an inscription, almost completely effaced : [...] SANCTI MAXIMINI.
(3) To the right of the runes, in a later hand: Codex monasterii sancti maximini prope treueriis.

127 PRAEFATIO BEDAE PRESBITERI = Bede, Expositio allegorica de structura templi Salomonis.
219 A Latin elegy, inc. Plangamus cuculum Dafnin, dulcissime, nostrum
222 A letter sent by Peter, Doge of Venice, to the Emperor Henry and one Hi(l)dibertus, Archbishop (later hand).

On p. 126 the text of Alcuin's letter ends on I. 16;1. 17 is blank. Between II. 17 and 18 the values of the runes are written in uncials and halfuncials. The runes themselves follow on 1: 19; they are $8-12 \mathrm{~mm}$ high. There can be no doubt that the runes are contemporary with the manuscript : they are in the same dark ink as the preceding pages, and filled with the same yellow colour as that currently used for capitals. It is even probable that they are by the same hand as Alcuin's letter. In the following figure the respective positions of runes and equivalents have been kept as far as possible:


It appears immediately that the letters indicating the values of the runes have not only been displaced, but that the equivalent of $\boldsymbol{p}$ has been skipped, whilst that of $\mathbf{g}$ is a halfuncial $t$. It is not very likely that this $t$ originally belonged to $\mathbf{b}$; there is nothing to indicate why this letter should have been shifted to its present place; moreover this explanation leaves the $g$-rune without indication of its value. I rather believe that the $t$ going with the $g$-rune is the scribe's interpretation of an insular $g$ in his exemplar. The absence of an equivalent for $\mathbf{b}$ may be explained in the same way : an uncial or insular $d$ would b rather like the following $o$ and may have been overlooked.
There can be no doubt that this fupore is a copy. Only thus can we explain the shift of the values and the omission of one equivalent. The ductus of the runes leads to the same conclusion. If the copyist rendered his exemplar carefully, it must have shown very archaic forms : the $r$-rune is open, as that on St. Cuthbert's coffin; the $c$ looks rather like a rare intermediary between the original Germanic type and the clas-
sical English c-rune (1); this type is only known from one or two English inscriptions (the scanomodu-solidus) (2), and that of Hantum (Frisia) (3). But the scribe's being unfamiliar with runes may have led to this form, starting from the English type with a straight lateral stroke. The value $u$ for the $w$-rune also points to a rather early date or perhaps to a Northern model. But only the runes which the scribe (for a reason unknown to us) did not copy could have allowed us to date this fuporc more accurately.
By far the most interesting feature is the value $k$ assigned to the $j$-rune. This is a question, however, which can hardly be examined adequately here, for it is an evolution in which the name of the rune must have the most important part. Therefore full details will only be given in connexion with an occurrence of a corresponding name beginning with $k$. Briefly stated this seems to be what happened : the OE. rune-name ger/jer/ was interpreted as OHG. ger, ker by a scribe more familiar with High German than with English phonology. From this he derived the value $k$. Thus fuporcs which provided no rune for $k$ (i. e. those with only twenty-eight runes) could offer an equivalent for that letter when turned into an alphabet.

If it had reached us complete, the fragmentary fuporc of the Ghent manuscript would probably not have been inferior to that of the Vienna Codex.

## Conclusion.

The fuporc material, whether English or Continental, falls into two main types : some fuporcs have twenty-eight runes, others more than thirty. This differentiation is probably based upon chronological, perhaps also upon regional developments. Early fuporcs like that of Vienna MS. 795 (and the isruna
(1). Cf. the fourth and fifth forms of the $k$-rune in fig. 37 (p. 41) of $O$. von Frigsen's Runorna.
(2) C. F. Krary, Catalogue, Ixxxiv f., i.
C. H. V. Sutherland, Anglo-Saxon Gold Coinage in the Light of the Crondall Hoard. London, 1948, 40, 79.
(3) H. Arntz-H. Zeiss, Rurendenkmäler, 255.

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fuporcs examined in the next chapter) have only twenty-eight runes. There is a considerable amount of fluctuation as far as the runes beyond no. 28 are concerned. Their order varies, and this no doubt indicates that their status was not the same as that of the first twenty-eight. One rune, known from the Ruthwell inscription (Dickins's $\overline{\mathbf{k}}$ ), does not occur at all in our manuscripts.
The fuporc material is quite heteroclitic as far as the runenames go-they reflect chronological and dialectal differen-ces-but strikingly uniform if we consider the runes. Runic lore seems to have been much the same all over England. As to its cultural background, that we shall better be able to circumscribe after we shall have examined other material as well.
As a rule the fuporcs show little connexion with their environment, except that of the Rune Poem; even those that became part of alphabet collections can hardly be tied down to a set of circumstances. Perhaps this is not entirely a matter of coincidence; nor need the general scarcity of fuporcs be such (cf. p. 426 ff .).

One more peculiarity : the few Continental items that have come down to us all point to different strains of tradition. This can only mean that several (not to say many) fuborcs were imported to the Continent, a point which the coming chapters will amply corroborate.

## Chapter II

## THE FUbORCS (II): THE ISRUNA TRACT

As we saw at the end of the first chapter, the manuscript fupores discussed there may be considered as independent sources. Apart from the fuporc-without-names in Cotton MS. Galba A 2 and Oxford MS. St. John's College 17, and apart from the puzzling case of Cotton MS. Otho B 10, they show no traces of relationship.
Besides these versions of the Old English fuporc, there is one which occurs in no less than five manuscripts :
(1) St. Gall, Stiftsbibliothek, MS. 270 (SG);
(2) Brussels, Koninklijke Bibliotheek, MS. 9565-9566 (B);
(3) Trier, Priesterseminar, MS. R. IL. 13 (Tr);
(4) Vatican Library, MS. Urbin. lat. 290 (U);
(5) Salzburg, Stift St. Peter, MS. a IX. 32 (S).

All five manuscripts follow up the fuporc with a text on runic cryptography. The four varieties described in the text all proceed from the same principle : the Germanic fupark was divided into three sections or groups of eight runes (cf.p. xviii). Each rune could be defined by two figures : one indicating the group to which it belonged, the other its place in the group To us something like a fraction would be the simplest device for writing with this system : $1 / \mathbf{1}=\mathbf{f}, \mathbf{1} / 2=\mathbf{u} \ldots 3 / 8=\mathbf{o}$ ( $\mathbf{1}$ ). The Germanic peoples developed various devices, each of which uses a different way to indicate the two figures. Four such devices are described in the short text : isruna, lagoruna, hahalruna and stopfruna; a fifth device, clopfruna, may be of a different nature. From the name of the first device I shall call this text the isruna tract.
(x) Following most recent publications, and to simplify matters, I intend to use this device to render the runic formulae.

At a glance we shall see that the five manuscripts represent two different versions of this tract : the first four are derived from one prototype, the last one from another. Closer inspection will show that, amongst the first four, nos. I and 2 again belong together, and so do nos. 3 and 4.

The Manuscripts.

1. St. Gall, Stiftsbibliothek, MS. 270 (saec. IX). (SG) (1).

The runic material in this manuscript was known as early as W. Grimm's time, and has often been published since. It was considered as the only source of the isruna tract until quite recently. Although many works on general runology quote it or refer to it, no critical study of its text has been offered thus far. The manuscript is usually supposed to have been written at St. Gall, but it is not mentioned in the older catalogues of that library. At least one authority believes it originated in another scriptorium, cf. p. 9 .
Modern binding, leather back and corners, greyish blue paper over boards, with the inscription : DialecticalAlbini\&/fragmentum/ de musica, and the no. 270 . Paper fly-leaves in front ( $\hat{2}$, one not counted) and back ( I, counted)." In front a
(1) G. PsRtz, Italiünische Reise, 462 f .
W. Grimm, Ueber deutsche Runen, 106 ff. and Tab. II
J. M. Kemile, On Anglo-Saxon Rures, 338 and Plate XV, figs. 4, 5.
H. Hattemer, Denkmahle I, 417 f.
G. Sterbens, Monuments, I, 102 f. (no. 10), 107 (no. 21), 239; IV, r.
G. Scherrek, Verzeichniss, 101 f.
E. Sievirs, Rüren ind Runeninschriften", 259 ff.
E. Strinmbybr-E. SibvERs, Althochdeutrche Glousen: IV, 446 f.
T. von Grienbrager, Die angelsächsischen runenreihen, 6 ff.
F. Strbrens, Lateinische Palaggraphies, Plate $53^{3}$.
P. Lehmann, Bibliothekskitaloge I, 114, 1. 38 .
R. A. B. Mynors', Cassiodori Senatoris Invtitutiones; xxxiy
A. Bruckner, Scriptoria III, 39, 90, and Plate XXVI
H. Arntz, Handbuch ${ }^{1}$, 275 f.; Handbuch ${ }^{\text {: }}$, 173.
H. Arnvz, Handuch ${ }^{\text {, }} 275$.., Handbuch ${ }^{\text {2 }}$, 173

ID., Eis- und Wasserrunem.
ID., Runen und Runennamen, 172 ff.
E. Ruvce, Die Runen des Brüsseler Codex No $9565-9566$, 9 ff.
E. Rauç, Die Runen des Brüs
J. Blomfizid, Runes, 222 ff.
J. Blomfiz., Runes, 222 ff .
R. Drerourz, Van Agambertus tot
ID., Dubthach's Cryptogram, 374 .

19th century hand, which Bruckner ( $x$ ) identified as that of the librarian K. Kolb, inserted a list of the contents: Continentur in hoc Codice, etc. Quae pag. 52 de runis habentur, delineanda curaui, et D. Carolo Grim (Carolo crossed out) communicaui, qui ea edidit in libro [?] misso ūber die Teutsche Runen. Gottingen 18ax. In W. Grimm's work, however, we find in a footnote: Hr. Prof. Mone hat sie [i. e. zwei Runenalphabete] dort entdeckt und mir zu freiem Gebrauch freundschaftlich mitgetheilt (2). Strong, rather stiff parchment, as follows (pagination between square breckets) codex has 33 folios, arranged
flows (pagination between square brackets)
II $[3-14]+$ II $[15-22]+$ IV $[23-38]+$ II $(+3)[39-52]+$ II $(-1)$ $[53-58]+$ III (- 1) [59-68]; pp. r-2, $69-70:$ paper fly-leaves.
 on p. 57 (partim). The number of lines varies. 58 , I. it to the end; three
 seems to be no mention of the manuscript in St. Gall cataloggant hand. There according to B. Bischoff, the handwriting does nal catalogues before 146I (3); are traces of insular influences : $\mathbf{l r}=$ autem, not point to St. Gall. There Grimm and Steinmeyer date this codex 'saec. $X$ ', Hattemer and
' saec. IX'; F. Steffens specifies ' saec. IX exeunte ', and this is also the opinion of Bruckner (4):860/70-800/900. In view of the many $u$-like $a$ 's (in the fupore and the alphabet only 2 against i2 $a^{\prime}$ 's, but in the text 18 against 13 a's this seeming to indicate that for the scribe the $u$-like $a$ was the more current) a date saec. X may be excluded; B. Bischoff would place it about the middle of saec. IX.
Contents (5)
P. 3 [A]ctualis. contemplatiua. recte credentivm
[P]hisica. Theoretica. orthodoxorum (other hand saec. IX). Right op : D. n. 479 (no. of Kolb's catalogue); 1.4 : Dialectica Albini / E fragmentum de Musica. 1. 7 the old mark CC. Below, reversed, isputatio albini de Partibits
[Alcuin's Dialectica].
38 (Expl.) : Socrates non disputat, and a poern : Quid togo ciules cipe cognoscere mores, / Haec precepta legat, que liber iste teret etc Rubr.) : Disputio de dialectica \& de uirtutibus sapien/tissimi caroli \& albini magister [sic]
(1) A. Brucknkr, Scriptoria III, go.
(2) W. Grimm, Ueber deutsche Runen, 107.
(3) P. Lehmann, Bibliothekskataloge I, no. 23, p. 114, 1. 38 (4) W. Grimm, Ueber deutsche Runen,' 107.
E. Stbinmbrikr-E. Sigvers, Althochdeutsche Glossen IV, 446 f.
H. Hattemer, Denkmahle I, 417 f .
G. Scheraer, Verzeichniss, ioi f.
A. Bruyrins, Lateinuche Paläographie ${ }^{1}$, text with Plate $53^{\text {b }}$.
A. Bruckner, Scriptoria III, 90.
(5) G. Schrrber, Verzeichniss, toi f.

39 Upper margin : Omnium studiorum primam hanc approbat quintilianus. (Rubr.) : DE MUSICA DISCIPLINA.
[From Cassidodorus's Institutiones, De musica cap. V, with figures] 5 (Expl.) : ... huius scientie uobis atria patefacit, and figure. Then 45 (Expl.) : ... hu
A. Difinitionum prima est $O Y C \Phi \Omega \Delta H C$, latine substantialis...
B. Secunda species difinitionis est quae grece HNNOMATIKH dicitur, / latine notio nuncupatur.
Various excerpts, int. al. from Cassiodorus's Institutiones:
$48 \mathrm{P}[\mathrm{a}] \mathrm{rs}$ autem rethorica est sicut magistri tradunt secularium litterarum bene dicendi scientia, etc. Argumentatio dicta est quasi argute mentis oratio.
49 Definitions of arithmetica, geometrica, astronomia, satientia, mothematica ${ }_{50}{ }^{2}$ DE DOCTRINA CHRISTIANA AUGUSTINI (Rubr.)
5x Quattuor a quadris consurgunt limite uenti, etc. (Poem on the winds).
52 A fuporc, a runic alphabet and the isruna text (cf. infra); below, forms of the verb ypápou: ГРАФО ГРАФНС ГРАФН ГРАФОМН ГPAФHTE ГPAФOYCHN and an unintelligible scribble : facitaset dileatioasside(with $l$ above $c$ )esitintmcnosf.
53 (No title) Topicorum siue locorum ex quibus argumenta ducuntur triplex est diuisio ... (on rhetoric), ending :
54 A causis / argumentum est quando consuetudine communi res queque tractatur.
55 Explanations of rhetorical terms: [E]nergia, Leptologia, Sindiasmos, Ypallage, Metriasmos ... p. 57 : Prathema i. interrogatio.
57 Greek-Latin glosses (in three cols.), and further explanations. Grammatica est pulchra loquendi peritia a poetis illustribus auctoribusque / collecta ... Versus est copulatio legitimorum pedum cum certo articulo et cum certo fine/ ...
8 Definitions of figura, difinitio, genus
Differentiae (uesper, uespere, uesperum, uespera). 1. ro ff. : Biblical closses, in 2 cols. : In matheo (rubr.), (59) in luca
59 Greek-Latin glosses.
$62^{\circ}$ De catalogo ieronimi : Greek-Latin glosses.
$64^{*}$ Quibus locis apostoli iaceant.
Lat. glosses, with a few OHG. words interspersed.
$65^{\circ}$ De regnis miliciaque uocabula (rubr.)
$67^{\text {b }}$ Hoc subter iaceant defuncta cadauera fratrum.
The arrangement of p. 52 is as follows: ( I )
11. 1-3: a fuporc of 28 runes, with above each rune its name,

## (1) Facsimiles in : G. Stephiens, Monuments IV, 1 ; <br> F. Strprkns, Lateinicche Palägraphie', Plate $53^{\text {b }}$;

A. Brucknkr, Scriptoria III, Plate XXVI;
E. Rauc, Die Runen des Briusseler Codex ${ }^{0} 9565-9566$ (plate reproducing Steffens's).

## and to the right its value, runes $f$ to $p$ on $l$. 1

 $\mathbf{x}$ to ea on l. 3 .11. 4-7: a runic alphabet with above each rune its value; variant runes for $a(2), d(2), g(3), o(2), p(2)$, $s(2), t$ (2), this giving a total of 30 characters, written in two lines : $a-p, q-z$
The height of the runes varies between 5 and 7 mm . they are drawn with evident care.
12. 8-11 : the text on the iisruna, with the example corui
13. 12-13: the text on the lagoruna, with id.
14. 14-15: the text on the hahalruna, with id.
15. 16-18: the text on the stofruna, with id.
II. 19-20 : the text on the clofruna.

In the fuporc there is a short vertical stroke to the lower left of the $w$-rune, and again of the $s$-rune and the 0 -rune, thus dividing the fuporc into four groups of letters: $8: 8: 8$. As the ink of these strokes is darker than the brownish sort of ink currently used in the manuscript, they may well have been added by a later reader. Moreover there are pencil marks after $\mathbf{r}, \mathbf{n}, \mathbf{x}, \mathbf{m}$ and a (the ac-rune), which mark off five groups of five runes and one of three. A clue as to the origin of thes marks is found in the list of the contents on the front fly-leaves a... Eadem pagina 52 agit etiam de tribus scripturis secretis (Geheimschriften), quarum una lineis perpendicularibus I, altera uncis, tertia punctis . : : constat. Eae enucleantur hoc modo: litterae alphabethi diuiduntur in quinque vel sex partes, quae hic versus nominantur, ut cuique parti quinque litterae obtingant. Jam pro littera quacunque denotanda scribuntur duo signa ejusdem generis," etc. Finally, small crosses have been pencilled to the lower right of $h$ and $b$. These indicate the divisions of the fupore as found in the Brussels manuscript ( p .100 ); they are probably due-to a modern reader who wanted to compare the two versions
The fuporc will be discussed with those in the related manuscripts (p. 122 ff.). The runic alphabet belongs to the matter
of Chapter III and will be examined there (p. 217); yet a few general remarks on this alphabet may not be superfluous here. The alphabet is not simply the alphabetization of the preceding fuporc: it restores $\mathbf{p}$ in its original value (against the fuporc value $q$ ), and has a new $q$. It has a variant for $d$ which is no. other than $\mathbf{w}$; the similarity between $\mathbf{p}$ and $\mathbf{w}$ no doubt led to this confusion. The question whether the alphabet may throw any light on the fuporc is not easily answered. From the correction of the $p / q$-confusion, one might feel inclined to attach great importance to the alphabet; but when $\mathbf{w}$ is listed as a variant form of $\mathbf{p}$, we wonder whether the correction was not the result of a coincidence rather than of runological skill.
As to the St. Gall text of the tract, it shows some anomalies which point to a faulty transmission :
iisruna dicitur quę ... scribuntur; hahalruna dicuntur istę que ... ostenditur (for ostendit or ostendunt); subtiliter (for subtus litera).
It may consequently be several removes from the original. The manuscript context of this bit of runic lore is worth noting. This handy codex may well have been a teacher's manual ( $\mathbf{I}$ ). It contains matters to be taught in the later stages of the trivium (dialectics, rhetoric), and also some for the quadrivium (music). Of course we cannot infer from this situation that the cryptic systems explained in the tract were actually taught in class. P. 52 being the last page of a quire; the text on the runes may simply have been considered as a stopgap. On the other hand, a magister with a sense of paedagogics may well have used it to relieve a dull stretch in his course, e.g. in connexion with the Greek numerals. A comparison with the Brussels and Vatican manuscripts shows that we have probably to favour the latter possibility.
(1) We find similar textbooks in St. Gall MSS. 273 (together with a collection of poetry), 855 (with grammatical items), and especially 199. We can only regret that these and innumerable similar codices in other libraries have
only bean examined for separate items of their contents, and have never been studied as units assembled for a very definite purpose. Only by considering them as units, and by taking into account small fragments of apparently minor importance, can we obtain a more accurate picture of the teaching process in Mediaeval schools.' Cf. J. M. CLark, The Abbey of St Gall, 97 f.

## 2. Brussels, Koninklijke Bibliotheek, MS. 9565-9566

 (saec. IX ex.) (B).As far as our subject is concerned this manuscript is closely related to the St. Gall codex. In many ways it helps us to understand the latter. Its runic material was first edited some ten years ago by Miss E. Raucq (i).
At one time this codex belonged to the Chapter Library of the Abbey of Saint Laurent in Liège; it first had the pressmark $6 \xrightarrow{\text { mu }} 6$, afterwards $5 \sim{ }_{\sim}^{\text {mk }}{ }_{14}$; below the waved stroke : Sti Laurentii in C. Leodii. Since it is not mentioned in the 12 th and 13 th century library catalogues of that Abbey, it will probably have been acquired after that date (2), although it may have reached the Liege area before. B. Bischoff formally recognized the handwriting of fol, 8 as a typical St. Gall hand. Contacts between St . Gall and Liège must have been numerous at one time : we have only to think of the St. Gall monk Notker who became Bishop of Liege ( 972 -1007). I have analysed background and contents of the Brussels codex in another study; therefore not all details will be given here (3).
Modern red calf binding. Parchment of good quality, some leaves palimp-
seet (cf. infra). The mascrint seat (cf. infra). The manuscript consists of two parts : $A=$ fols. $1-12, B=$
fols. I $13-196$. In $A$, the order of fols. $13-196$. In $A$, the order of the foliog is disturbed (pencil marks $5^{r}=4$,
$11^{r}=2,12^{f}=3,13^{r}=5$, then



 at least one quire is missing at the end. at least one quire is missing at the end.
Format $232 \times 175 \mathrm{~mm}$; the
A has 19 lines to the page, B 28 . It is worth noting that some of 135 mm ; pages of the manuscript, especially fols $\mathrm{I}^{-r-r}, \mathrm{a}^{-r-r}, 7^{\gamma}$, are palimpsest The first older writing has been carefully removed, but the roughness of the surface of the parchment and some traces of an older lineation prove that some other text was firrt written on these pages. The date proposed by P. Thomas, viz saec. X, may be somewhat late; E. Raucq and B. Bischoff are in favour of
(1) E. Ruucq, Die Runen des Brïsseler Codex No 9565-9566.
et XIIIT siecle. Bulletin de la Societe le des Bible Saint-Laurent d Liege au XIIe (3) R. Droovzz, Dubthach's Crytogram Thites Liegeois 12 (9927), 9 If f. Prof. B. Bischoofs examined the faccimile in Miss E Rauco's printed before informed me of his findings.
the late ninth century ( x ). The two parts of the manuscript must be fairly the late ninth century ( $\mathbf{i}$. The two parts of the manuscript must be fairly continued on $13^{\text {r }}$.
When we rearrange the first 12 folios as they were originally bound, the contents shows this order
fol. $\mathrm{I}^{\mathrm{r}}-3^{\mathrm{r}}$ : Subdivisions of philosophy, theoretica $\left(\mathbf{1}^{\mathrm{r}}\right)$, practica $\left(\mathbf{I}^{\mathrm{r}}, 2^{\mathrm{r}}\right.$, ) logica $\left(\mathbf{2}^{\mathrm{V}}\right)$ spiritalis ( $3^{r}$ ), with diagrams (2).
$3^{\mathrm{V}}-4^{\mathrm{V}}, 12^{\mathrm{r}},{11^{\mathrm{V}} \mathrm{F}}^{\text {a }}$ : subdivisions, definitions and diagrams relating to
Expl. fol. $5^{v}$ : HUCUSQUE RETHORICA.
$12^{2}$ : seems to supplement the contents of fol. $\mathbf{I}^{\boldsymbol{r}}$ : Porro sapientiam ueteres philosophiarn uocauerunt id est / omnium rerwm humanarum que diuinarum scientiam. Cuiw / philosophiae tres esse part dixerunt, etc. Continued on
r: De phisica : subdivisions and definitions.
$5^{\mathrm{V}}-6^{\mathrm{r}}$ : Subdivisions of dialectica (with diagram)
$6^{\mathrm{r}}-\mathrm{7}^{\mathrm{v}}$ : Subdivisions of Aethica; the four principal virtues and their sub$7^{*}$ : Subdivisions of Aethica; the four principal virtues and their sub-
divisions : prudentia $\left(6^{v}\right)$, iustitia $\left(7^{2}\right)$, fortitudo $\left(7^{*}\right)$, temperantia $\left(7^{v}\right)$. Ir : Runic material (cf. infra).
$8^{7}-9^{\text {r }}$ : Computus table (3); in the right hand margin of fol. $9^{r}$ a short text has been erased.
1ov: Concordance of Greek and Latin numerals with the letters of the Latin alphabet: I $A \mathrm{a}, \mathrm{II} B \mathrm{~b}, \mathrm{III} \Gamma \mathrm{c} \ldots . \mathrm{XXIII} \mathrm{K} r \mathrm{z}$, then XXIIII KA... XXXI LA (i. e. AA) (4). Concordance of Greek and Latin numerals, from $A$ I to $\uparrow$ DCCCC
(1) P. Thomas, Catalogue des manuscrits de classiques Latins de la Bibliotheque royale de Bruxelles. (Université de Gand, Recueil de travaux publies par la Faculté de philosophie et lettres, 18) Gand, 1896, 32.
The date given by Marchal, viz. the first third part of the eleventh century, may be left unconsidered (F. J. F. Marchal, Catalogue des manuscrits de la Bibliotheque Royale des Ducs de Bourgogne. Inventaire $\mathbf{N}^{\mathrm{o}}$ 1. BruxellesLeipzig, 1842, 192).
(2) I wish to thank Prof, O. Homburger (Berne) and Dr J. Duft (St. Gall) for having drawn my attention to a number of manuscripts with identical or simiar diagrams : Beme MS. M8, S. Gall MSS. 199, 27, b5S (on mese hree c.. also p. , ${ }^{2}$, nea (). ') summaries-ccur pobebly in many more manu scripts and deserve more attention than they have received thus far. They go back ultimately to Cassiodorus, but seem to have been used by other scholars as well, e. g. Alcuin. For obvious reasons R. A. B. Mynors, Cassiodori Senatoris Institutiones, xxxiv, could only refer to manuscripts with excerpts of some length.
(3) Cf. Bkor, De temporum ratione ed. C. W. Jonrs, Bedae Opera de temporihus, 356 : "Quot sit luna in kelendis per cyclum".
(4) Cf. Bkoz, o. c., 219 : "Pagina regularum", but with Greek instead of Roman numerals.
$13^{\text { }}$ : The following enigmatic lines
Vt siculis omnibus
IVDIM. et cetera. q. NOM. M. R. F. V. T. C
IUPA mult. N. NV. ET. I. P. R.S. F. O. A. R.
Patres hi quos uidi et ceter
L. L. ex M.A.Q.M.P.A.N.O.S.C.A.R.A.B. cons L. ex. q. nihil. A. O. nihil. uf. s. post. s. p.ex.

VBI N. G.S. Q. R. P. H. A. B. In qua urbe uiuimus hic hic. S. NI. NUM. P. C. similes (I),

NIENSIS / LIBER PRIMUS INCIPIT / DE / AFRI CARTAGILOGIAE ET MERCURUS INCIPIT / DE NUPTIIS PHILO missing, for the text ends abruptly:
$\qquad$ .... et simplices quidem dicuntur qui tem[...] $]=$ ed. A. Dick, The pisao,.14.
The cryptogram on fol. $13^{\mathrm{r}}$ consists of Greek numerals :
IB E IZ IB E IГ. IZ EKA. Г.IA IF Г H II. IH A $I A K I \theta E I B$
$I H K A \Delta B A I Z \quad I H \Gamma I Z \Theta I E I H \Theta I \Theta$
At the bottom of the page there is this note :
Hic erras, Dupthace, in tuis notulis scribens $H$ pro $\Theta u e l$
(I) Professors B. Bischoff and P. van de Worstijne kindly helped me to solve this puzzle. The first three lines are from Cicero, In Verrem I (in A.
Caecilium I) Caecilium 1)
[Cum quastor in Sicilia fuissem, iudices itaque ex ea provincia decessissern,] ut Siculis omnibus iucundam diuturnamque memoriam quaesturae nominisque mei relinquerem, factum est, uti cum summum veteribus patronis multis, tum nonnullum etiam in me praesidium suis fortunis constitutum esse arbitrarentur the second group from the same work, $V$, 118 ;
tabant ad ostium carceris, ab extremo c, matresque miserae pernoc quae nihil aliud orabant, nisi ut filiorum conspectu liberum exclusae ore excipere liceret. and the last group from in $C$
in Catilinam 1, 9
[0 di immortales!] ubinam gentium sumus? quam rem publican habemus? in qua urbe uiuimus? Hic, hic sunt, in nostro numero patres conscripti
from this rule letter (or letters) of each word are written. A few deviations Ghent MS. 306 and Vienna MS. 751 have only a copy. Cf. RRR, etc. in
$\because$
proe/uel pro aspirationis nota quę nec secundum brittanicam linguam/in' $i$ 'pso nomine bene resonat.
With the help of the concordance on fol. rov, which, if we restore the original order, faces fol. $13^{7}$, the cryptogram on the latter may be read :

## MERMEN REX CONCHN SALUTEM. SUADBAR SCRIPSIT.

This same cryptogram is also found in Bamberg MS. Class. $6=$ H.J.IV. in, fol. rog $^{*}$. There its two parts are imbedded in a letter which enables us to reconstruct the circumstances in which the cryptogram was composed (1). A group of
(x) On the Bamberg manuscript cf. the Katalog der Handschriften der Königlichen Bibliothek zu Bamberg: Leipzig, 1887 ff., 1, 2, 8 f.; on its text J. L. Herrexg, Et Lille Bidrag iil Belysning of Middelolderens Kondskab til Forhandlinger od dets Medlemmers Arbejder i Aaret 1889 , 198 ff ., and my Forhandlinger od dets Medlemmers Arbejder i Aaret 1889 , 198 ff ., and my
paper ( p . 95, note 3). Full bibliography in J. F. Kenney, Sources I, 556 , paper (p. 95, note 3). Full bibliography in J. F. Kennery, Sources I, 556, the text of the letter is as follows :
Hec est inscriptio, quam Dubtach in arce Mermin Brittannorum regis demisit ad probandos Scottorum sapientes, se ipsum excellentissimum omnium Scottorum Brittonumque opinans, scilicet putans nullum Scottigenarum quanto magis Brittonum doctorum in presentia Mermin regis istam scripturam perlegere atque intelligere potuisse. Sed nos Caunchobrach, Fergus et Dominnach et Suadbar opitulante Deo illa scriptura non latuit, per annalem Grecorum libellum atque alphabeti eandem inscriptionem inuestigantes. IB E IZ IB EIT. IZ E KA. I IA IT Г H II. IH A IA KIOEIB. Istius scripture talis est sensus: Mermen rex Conchen saluterm. Si ergo uolueris istam seripturam dinoscere, perspicaci mente presciptam Grecorum annalis compoi sertito centibus conuenire, sicut in prescriptis liveis designowimus. Cum ergo 18 grecas uicelicet literas in praefata Dubthachi scriptura aspiciendo uideris grecas uicelicet literas in praefata Dubthachi scriptura aspiciendo uideris,
respice grecarum litetairum seriem ante scriptam, atque in illa serie IB greca respice grecarum literatum seriem ante scriptam, atque in illa serie is greca
elemienta tuum uirum (?) non latebunt; et quia XImum eqdem litere optinent locum, necesse' est, ut XIImam latini alphabeti m literam designent. Item quia $\mathbf{E}$ in ipsa greci calculi serie quintum possidet locum, recte quintam latini alphabeti e literam esse designatam, atque ita per cetera decurrens totum sensum ipsius uel similis descriptionis intelliges.
Notum sit tue prudentie, optime Colgu nosterque doctissime magister quod non quasi tibi ignoranti istam expositiunculam transmittimus; sed suppliciter poscimus, ut istam explanationem ignorantibus et simplicioribus nostris Scottigenis fratribus trans Britannicum mare nauigare uolentibus per tuam beniuolam caritatern insinues, ne forte in presentia Mermin gloriosi 98

Irishmen who had left their homeland, possibly on account of the Viking raids, were living at the court of Mermen or Mermin (Merfyn Frych, 824-844) in Wales. One of them called Dubthach, travelled on to the Continent and thence he sent a cryptogram to his countrymen, possibly as a revenge for some or other slight he had suffered from them. With the help of Greek annals (i. e. annals using Greek numerals? they decyphered the cryptogram and in the name of his three companions Caunchobrach, Fergus and Dominnach, Suadbar passed on the cryptogram with the necessary explanations to their master Colgu, in order that he might teach it to other Irishmen intending to travel to Mermin's court, so they would not have to blush on account of their ignorance.
The Concen or Concin mentioned in the cryptogram (the mistake Conchn is corrected in the note addressed to Dubthach) was king of Powys ( 808 - ?) and died a pilgrim in Rome ( 854 or 855 ). Since Dubthach, Fergus and Suadbar may be identified with Irishmen known from other manuscripts, there may be some historical background to this letter. St. Gall is precisely the place where we should expect such a cryptogram to turn up, cf. p. 154 ff .

The environment of the isruna tract in the Brussels manuscript connects it closely with the St. Gall codex : there too we find at a few folios' distance (p. 45) : Secunda species difini tionis est quae grece HNNOMATIKH dicitur, latine notio nuncupatur, etc.; (p. 48) P[a]rs autem rethorica est sicut magistri

Britonum regis illam inscriptionern non intelligentes erubescant. Nos autem coram Deo testamur, quod nec causa elationis aut tumide inflationis, quod bant, istam uobis transmittimus expositionem; sed istam latebram uestram paudete Vatere fraterno amore non passi sumus. Omnes in Christo fratres $I H K A A B$
tuis notulis scribens H IH CIZ 日 IE IH Q Ie. Hic erras, Dubthache, in cundum Britannicam linguam in pro e uel pro aspirationis nota, quef nec seThe scribe signed his work in ipso termino bene sonat.

 conscripserat istam arithmetikam). Nandharius sagax bono animo
tradunt secularium litterarum bene dicendi scientia, etc.; (p. 49) : definitions of arithmetica, geometrica, astronomia, sapientia, mathematica. This can hardly be a coincidence, as is also shown by features common to the two isruna versions is also shown welves; we shall see that in all probability the two manuscripts ultimately go back to the same original.
In the Brussels manuscript the runes are arranged as follows (there is no definite lineation; the scribe seems to have followed the horizontal lines of the table on fol. 8 v , but even those he followed only freely; consequently the indications of lines in the following description are only approximate, cf. plate $V$ ): 11. 1-6: the fuporc, in three lines: $\mathbf{f}-\mathbf{h}(1.2), \mathbf{n}-\mathbf{b}$ (1. 4), e-ea (l. 6), with above each rune its name (ll. $1,3,5$ ) and to the right its value.

1. 7: blank.
II. 8-9: Clophruna text.
2. 10-14: Isruna text with at the end the example (1. 14).
3. 15-16: Lagoruna text with id. (1. 16).
4. 17-19: Hahalruna text, with the example inserted after iste (1. 17).
5. 20 : blank.

11: 21-22 and 25-26: Stophruna text, with the example in between the two parts (II. 23-24).
The text is written in a sprawling, rather careless hand, which is also found on other pages in the first 12 folios, so there can be no doubt about its being contemporary with the rest of th emanuscript. The carelessness of the scribe appears int. al. in the size of the runes, which varies between 6 and 13 mm ., and in the runes of the example illustrating the lagoruna: the 'shorter' $l$-runes are simply inverted v's; the 'longer' ones too are strongly inclined to the right.
The scribe (or his exemplar) seems to have wanted to indicate the subdivisions of the fuporc: he deliberately left enough space for two more runes after hagal and berg, and marked off the three attir by a positura. A positura is also found after the clophruna paragraph but not after the other paragraphs : it probably indicates the end of the treatise, and may imply that the first paragraph originally came last, as in the

St. Gall manuscript. That the clophruna should not come at the beginning seems rather obvious.

As it stands, the fuporc gives up the old division $8: 8: 8+4$ for $9: 9: 10$, and this is of fundamental importance. There was little chance for an example chosen at random to tally well with both systems (all letters should be taken from the first group of eight). There is no doubt that our scribe (or the compiler of his exemplar) had become aware of this difficulty. This is shown by oc (value o) being shifted from the twentyfourth place to the twenty-sixth. The reason was of course that in the examples the $o$ ( $=$ the a-rune : apel has become odil) of corui was indicated by the formula $3 / 8$; by removing two runes to the preceding group, o would have become $3 / 6$. There were two solutions : either to change $3 / 8$ to $3 / 6$ in all the examples; or to shift the $\alpha$-rune to the eighth place in the third group. Our manuscript shows the latter solution; the former will be found in the Vatican and the Trier manuscripts (cf. infra). But when shifting the $o$ to a place where it would fit the example, the compiler overlooked that there was another
( I ) The $2 / 3$ of the manuscript can hardly be interpreted as j (i. e. conuj) : the $j$-rune is never given the equivalent $i$.
letter not belonging to the first group : $i$. Instead of $2 / 3$, this had become $2 / 2$, but neither the order nor the examples were changed accordingly ( I ).
As to the text itself, it calls for a few remarks. The plural dicuntur is used after all the -runa compounds, except the clophruna, implying that runa is considered as a (neuter) plural or a collective. But this use is not carried through everywhere : Hahalruna dicuntur ... que ... ostendit; on the other hand in the stophruna paragraph we find the pronominal form illas referring to these stophruna. And then there is of course the enigmatic clophruna paragraph (cf. p. 134 ff.).
For further details on the fuporc see p. 122 ff .; discussion of the text p. i3I ff.
A comparison of $B$ and $S G$ shows that their texts do not depend one on the other, but that both proceed from a common source:

$\qquad$



B : ceri ( ( ) , elox SG : cen, elux
$\begin{array}{ll}\text { tag asc ac odil } & \text { tag odil ac asc } \\ \text { dicitur (1.8) }\end{array}$
dicuntur (1. 10) dicitur (1.8)
subtus litera (1.22) subtiliter (1. 16)
qua (l. 26)
qui (1. 18) ostenditur (1.14)
These last two forms may go back to an abbreviated ostend $\bar{t}$. The two manuscripts also interchange the names and/or the places of $x$ and $a$ : under ase we find an $a$-rune with the value $a a$, and under $a c$ an $x$-rune with value $a$; in B the asc-group comes first, in SG that with ac. In either case the order has been disturbed, but whilst in $B$ the runes and their values have changed places, in SG it is the names

One difference, finally, will be examined later : B has clophand stophruna, SG clof- and stofruna.

$$
\begin{gathered}
\text { 3. Trier, Priesterseminar, MS. R. III. } 13(=\text { no. } 6 I) . \\
(\mathrm{saec} . \mathrm{XI} / \mathrm{XII})(\mathrm{Tr}) .
\end{gathered}
$$

This manuscript has been examined especially for its OHG. losses, which were edited first by Steinmeyer and again by Gallée and by Katara (1). This last author's very careful study provided the basis of the description following here.
Brown leather binding over wooden boards (saec. XV), rests of two clasps. 137 leaves of parchment of various qualities. The codex is made up of 3 or even 5 different manuscripts (2), arranged as follows:
even 5 different manuscripts (2), arranged as follows : $[9-16]+\mathrm{VII}(+1)$ [24-38];
$\mathrm{B}=39$-101 $=6$ IV $[39-86]+$ IV $(-1)[87-93]+$ IV [94-ron $] ;$
(I) E. Steinmbykr-E. Strvers, Althochdeutrche Glossen I, 314; II, 334, 590; III, $432,457 \mathrm{fl}$., 570 ff .; IV, 195 fi, 246,330 ; 620 f . (description).
II. Gall ke, Uit Bibliotheeken en Archieven. Tijdschrift voor Nederiandsche Taal- en Letterkunde 13 (1894), 257-302 ( 267 ff ).

ID., Vorstudien, passim.
P. Katars, Die Clossen des Codex Seminanii Trevirensis R. III. 13. Textausgabé mit Einieitung und Wörterverzeichnissen. 'Diss. Helsingfors, 1912. See also H. V. Sajerland, Aus Handschriften der Trierer Seminarbrbliothek. Neues Archiv 17 (1892), 616.
G. Bassecke, Vocabularius, $73,93,95 \mathrm{ff}$. (2) As far as the composition or he magree on all points.
$\dot{C}=102-115=$ IV +6 loose leaves
$\mathrm{D}=116-121=6$ loose leaves;
$\mathrm{E}=122-137=2 \mathrm{IV}$.
Page ca. $265 \times 188 \mathrm{~mm}$; through trimming some fols. (int. al. fol. 115 ) are slightly smaller. Written surface: $210 \times 135 \mathrm{~mm}$. Fols. $116-12 x$ palimpsest. Ruled for : A : usually 2811 ; B : 33 II .; C : $28-33 \mathrm{ll}$, but 50 on fol. 114; D: 33 11., $\mathrm{E}: 50-52 \mathrm{II}$. These parts were written at differen XIXII. D belongs to seec XIII, $E$ to saec XIV XIXII; D belongs to saec. XIII, E to saec. XIV.
In the vocabulary part there are traces of English influence e. g. radamus (: vespertilio, OE. hreademus), uuandautuerpa (: talpa, OE. wandeweorpe); abbreviations, e. g. $\mathrm{l} \mathrm{c}=$ autem; $\mathrm{N}=$ enim $; \div=$ est, etc. But when Baesecke says :
"Dasz er ( = Cod. R.III.I 3 des Trierer Priesterseminars) ... insulare Ahnen hat, zeigen überdies insulare Abkürzungen, ags. Sprachspuren und das Runenalphabet von Bl. II5 ${ }^{v}$, etc. " (1),
I must take exception to his last argument, for this "Runenalphabet" had been transmitted for a long time on the Continent, and is not entirely comparable to the English character of the glosses or the insular character of the abbreviations The connexion of the isruna tract with the rest of the manuscript (or even with part $C$ ) is rather slight. Perhaps we may point to the fact that it is found in the neighbourhood of meteorological material in the Vatican manuscript as well, whilst the latter and the Brussels version are connected with computistical items. Tr, however, hardly offers any clue to explain its inclusion and still less to show for what purpose it may have been used.
The manuscript formerly belonged to St. Maximin Monastery near Trier (fols. $\mathrm{I}^{\mathrm{r}}, \mathrm{I}^{\mathrm{v}}$ and $122^{\mathrm{v}}$ ). Where it was written seems to be unknown. For the OHG. glosses of $C$ (which also contains the isruna tract) Katara assumed a Middle Franconian original with some admixture of Low Franconian; this seems to indicate that the manuscript may be preserved not far from the place where it originated (perhaps somewhat more to the North and East ?).

(x) G. BABsEGKB, Vocabularius, 97.
$39^{r-100 \%}$ (= B) : Julius Solinus, De situ orbis terrarum et seculis mirabilibus quae in mundo habentur.
$100^{*}$ : Incipiunt presagia tonitruvn XII mensium.
roiv: Exordiuntur uero prefigurationes tonitrvvm VI feriarum. Inchoant predemonstrationes tonitruum horarum.
(all from Pseudo-Bede, De tonitruis libellus). (1).
$102^{v}, 1.18$ - fol. $114^{x}$ : Latin and OHG. vocabulary.
114 - fol. $115^{\mathrm{r}}$ : Life of St. Dionysius (unedited?). Inc. Speciales francorum protectores sunt dionisius martyr domini preciosus.
115r, 1. 11 : Metrical Latin proverbs, printed by Katara. Inc. Tantillis tantuM/nanciscens dogrnata tantum.
$115^{\circ}$ : The imena tract, followed by Greek numerals, their value and names (cf. below).
fols. 116r-121( $=$ D) : Marbod, Liber lapidum. Inc. Incipit Prologium libri lapidum: Evax rex arabum legitur scripsisse neroni...
$122^{\mathrm{r}}-137^{\text {¹ }}(=\mathrm{E})$ : (122² blank) Petrus de Riga, Aurora (incomplete).
Arrangement of fol. $115^{\mathrm{v}}$ :
11. 1-3: fuporc, with values to the left of the runes, and names above. The 27 runes are subdivided as follows : $\mathbf{f}-\mathbf{w} / \mathbf{h}-\mathbf{b} / \mathbf{e}-\mathbf{q}$.

## 1. 4 : blank.

11. 5-8: Isruna paragraph, followed by example.
12. 9-10: Lagoruna text interlinear transcriptions in a thir-
II. II-13: Hahalruna text) teenth century hand (cf. infra).
13. 14-17: Stofruna text, with two examples.

The rest of the page was used by a fourteenth century hand for inserting the Greek alphabet and numerals.

Fol. $115^{\mathrm{V}}$ must for some time have been the last page of the manuscript : the writing is much worn, and a later hand retraced a few words or letters and added an interlinear transcription to ll. 9 and II :
(Lagoruna) dicū $\overline{\mathrm{q}}$ ita sc $^{1} \mathrm{bnnt}^{2}$ (per 1 ) Fra vt $\mathrm{n}^{\mathrm{n}}$ corui;

From the appearance of this page in our manuscript, a few clues on the history of this version and on the exemplar from which it derives may be gathered. The final letter of the name of the $b$-rune is missing, and so is the last rune (ea, $x, a e r$, in the other versions). It is quite probable that these defects are due to an exemplar which was hardly legible or had been
(x) Cf. C. W. Jonzs, Bedae Pseudepigrapha, 45 ff.
partly damaged. Other mistakes may result from the same cause : fed (for feh), doro (for dorn), tan (for tif) (I). The omission of the clopfruna paragraph may be explained in the same way. A number of mistakes and divergences may be due to other reasons, e. g. to the scribe's inaccuracy :

1. 5 lisruna ... .i. litteram ... scribuntur (instead of littera);
2. 6 breuioribus .I. ... longioribus .i.;
3. II Hahalruna dicuntur que ita scribuntur (Hahalruna ita scribuntur in the other versions);
4. 14 quæ supra in punctis quotus sit uersus subtus litteris ostendunt;
5. 16, 17 ut supra sint puncti quæ litteram / et subtus ordo uersum.

- The arrangement of the fuporc as given in $\operatorname{Tr}$ has influenced the examples. By adding the first two runes of the third group to the second, the scribe (or his exemplar) shifted $\alpha$ from the eighth to the sixth place. Hence the $3 / 8$ which indicated the $o$ (i. e. originally ce) in the examples had to be changed into $3 / 6$. In the hahalruna the scribe omitted a stroke to the left side of the last symbol, writing $1 / 8$ instead of $2 / 8$. On the other hand the text on the hahalruna shows the correct form ostendunt (1.12; B has ostendit, SG ostenditur, cf. p. 102).

The most striking difference lies in the examples. Whilst the two versions mentioned before gave cryptographic renderings of corui, the Trier version transcribes coruus $\left(\begin{array}{lllllll}1 & 3 / 6 & 1 / 5 & 1 / 2\end{array}\right.$ $\mathrm{I} / 22 / 8$ ). On the priority of one or the other reading, cf. p. 132 . The repetition of the example in the stofruna paragraph is unparallelled and may be due to the scribe of Tr ; of the hahalruna text, too, Tr offers a more explicit version. It is hard to decide why the clopfruna paragraph is missing. Either it was omitted by the scribe of $\operatorname{Tr}$ (or in his exemplar) because the device described in it was quite different from real runic cryptography; or else it is an addition to the common ancestor of SG and B .
(1) The Rev. Krămer of the Trier Priesterseminar read dolo or dola rather than doro; but since the scribe uses a very long $r$ (e. g. in rait) doro does not seem to be entircly unlikely.

On the whole the Trier text seems rather to be a revised edition of the text found in the two other versions. Its relation to the rest of the manuscript seems to be quite accidental : it was simply added on a blank page, just like the Greek numerals below it (which were added two or three centuries later).

> 4. Vatican Library, Codex Urbinas Latinus 290 (saec. Xex. /XI.) (U).

Well known to historians for its annals (annales Brunvillarenses), this manuscript once belonged to the Abbey of St. Nicolas in Braunweiler near Cologne, founded in 1024 by Count Palatine Ezzo. Formerly it was no. 288 in the Urbinate collection. How and when this manuscript reached Italy seems to be unknown. Its runes were first edited by H. Massmann (1). For our study it is of special interest because it shows the coalescence of two different runic traditions.
Redbrown leather binding, stamped with gold ornaments and the arms of Pope Pius VI and Cardinal-Bibliothecary F. X. de Zelada (last quarter of the consists of I +7 I folios. It was probably put together bit by bit as the material could be collected. The composition of the quires is irregular, and there are many single folios.
Format $312 \times 250 \mathrm{~mm}$; the dimensions of the writter area, the number of columns and of lines vary much. The handwriting reflects the composite character of the manuscript. Yet the different parts may be dated within a relatively short period: saec. X ex.-XI (2). The runes are contemporary with their surroundings (saec. XI). Folio I was added in the 15 th century. Contents: (3)
fol. $\mathrm{I}^{\mathrm{t}^{t}}$ Computistical and astronomical excerpts, from various authors.
(1) H. F. Mnssmann, Runen, 253 f.
G. Stephzns, Monuments III, ir, nos. 76, 77.
T. von Grienbergei, Dic angelsáchsischen. runenreihen, 6 f.

On the manuscript cf. also
C. W. Jonss, Bedae Pseudepigrapha, 13, 50, 54, 60, 68, 90, 138.
L. Thorndikr, $A$ History of Magic 1, 693 .
A. Van de Vijver, Les
A. Van des Vijver, Les cenvres inédites d'Abbon de Fleury, 153.
(2) On the basis of the Easter tables for the period 988-1082, Massmann dated the manuscript in 1082; Regrferscheidt, however, concluded that, since the tables were of 988 , the manuscript cannot have been written much later
(footnote to MAssmann's p. 254). On the difficulty of dating on the basis (tootnote to MAssmann's p. 254). On the diffic
of Easter tables cf. H. Henkl, Computus, 23 f .
(3) For further details see the entry in C. StornajoLo, Codices I, $26 . \mathrm{r}$.

I $^{\text {v }}$ [Bedae] compotus vulgaris, qui dicitur ephemerida (fragm.) $2^{\text {2 }}$ Ratio spere Pitagorae quam Apuleius descripsit. $3^{1}$ Petosiris Micipso regi salutem [Pseudo-Bede, De
$3^{\text {3 }}$ et vemitae]. Fanii [i. e. Favini] de ponderibus et mensuris
${ }^{7}$. Tables of a paschal cycle, with annalistic notations referring to
$\checkmark$ Compotus H
12 ${ }^{2}$ Compotus Herimanni [i. e. Hermannus Contractus of Reichenau on the age of the moon].
$32^{-}$Tetrastichon authenticum de singulis mensibus.
$33^{\text {r }}$
[Ausonius's] Monosticha de
astronomical poems.
$51^{\text {V }}$ Libellus calculatoriae
Computus].
$62^{-}$Ciclus graece, circulus latine etc. Astronomical excerpts.
64 Dionysiac cycles with annalistic noter
$7^{\circ}$ Alphabets, numerale withalistic notes referring. to Braunweiler.
his last pare of with int. al. runes (cf. infra)
so that it is hard even manuscript is much crowded, so much items were added. Moreover as it what order the various manuscript, it has suffered rather badly from rubbing and also from dampness. Especially the right margin is much damaged a strip of paper had to be pasted along the fold to hold the folio. The result is that some of the runic material (infra no. II) is partly illegible. Moreover the writing of the preceding page (fol. $7 \mathrm{I}^{\mathrm{r}}$ : TERMINUS PASCHALIS CVM REGVLARIB; AD FERIA LVNAE QVARTA [corr. to -AE] DECIMA [id.] INVENIENDA) tends to become visible through the parchment and this makes the reading still more difficult.
Going from left to right and from top to bottom we find in vertical columns
(1) A Greek alphabet (to $\Psi$ ) with the names of the letters and their numerical values in Roman figures.
(2) A Greek alphabet (to $\Psi$ ) with Greek numerals (miaebdacusie) and their numerical values in Roman figures.
(3) - (4) Part of a Greek alphabet, $A$ to $\Theta$, with the Greek numerals chile to ennachie; then from $A$ to $\Theta=$ murias to ebdoñta muriatu, continued in the next column to $\mathbb{A}=$
muria muriat.
(5) Below this column, a short note on Greek numerals and
diphthongs: $\bigwedge$ ennacussie DCCCC, etc. Hę tres notę non littere / sed pro numeris complendis / addende sunt in alfabeto./ Diptongi grecorum / ai pro ae, etc. Items completing the alphabets of columns (1) and (2).
(6) The Latin numerals I-DCCCC corresponding to the Greek letters and numeric symbols $A-\bigwedge$, and the Greek numerals mia-niacusin.
(7) Two items completing (3) and (4), a pseudo-Greek alphabet with the names of the letters and their Latin equivalents : $\wedge$. alfa pro a, etc.
(8) In the space remaining to the right of the page, a different but apparently contemporary hand has added the note on the Gothic alphabet printed on p. 317 .
(9) Mostly below (1) and (2): DE MENSIbus hebreorum./ Nisan. I. Aprilis, etc. DE MENSIBVS [GRAECORUM]. / APELevs. i. December, etc. De mensibus egiptiorum. / Toth. I. IIII kal. Septembris, etc.
(ro) Below (3) to (7), parts of the isruna tract, arranged as follows :
II. 28-3I : the paragraph on the isruna, with example.
11. $32-33$ : erased.
11. $34-36$ : text on the hahalruna, partly erased; the illustrating example may never have been written.

1. 37: blank (erased ?)
il. 38-41 : a Greek alphabet, majuscule and minuscule forms, with the names and values of the letters in Mediaeval Greek : B uitta pro u ... ita, thita, lauda, etc. The order is disturbed, some letters are missing.
(II) Below (8), in two vertical columns, a runic alphabet and a fuporc (cf. infra).
It is hard to decide why part of the isruna tract should have been erased. The text may have extended originally as far as 1.37 ; but what one could take for traces of older writing may as well be the text of the preceding page becoming faintly visible through the parchment. At any rate it remains doubtful whether the isruna text ever extended beyond the hahalruna.

The blank space between these and the preceding isruna was obviously filled by the lagoruna: faint traces of a series of $l$-runes remain visible at the end of 1.33 .
As was mentioned before, our manuscript is remarkable for its combining two different traditions: the isruna tradition and the De inventione tradition. To the latter belong :
(a) the text in the right hand margin (8).
(b) the runic alphabet (ir).

To the former :
(c) the fuporc (ix).
(d) the fragments of the isruna text (io).

Only items (c) and (d) will be discussed in this chapter; the other two in Chapter IV (p. 317 ff .).
The fuporc begins immediately below the runic alphabet the first two runes of the former have been crowded in after the last rune of the latter. The remaining runes are written in one vertical column, runes, values and names. Because of the poor state of this page, a detailed discussion of the fuporc is given here, correcting Massmann's readings and von Grienberger's interpretations when necessary ( I ).
f: value $f$, name fue. The value $f$ is clearly indicated, but must have been skipped by Massmann. There is consequently no reason to read $f$, ué, as von Grienberger proposes; the accent, moreover, is on $u$, not on $e$.
$u$ : here again Massmann has overlooked the $u$ which indicates the value; yet it is plainly visible between the rune and the name uor.
b: Massmann's rune looks much like $\mathbf{n}$; actually the manuscript has a rounded type of $\mathbf{p}$, the loop of which has much faded. In the name dorn the accent is on the $r$.
$o$ : In the lateral strokes of this rune the right hand parts are vertical. To the right of the rune Massmann read ceos; in fact the value is $o$, separated by a high dot from the name eos:
(i) H. F. Massmann, Runeen, 255 f.; T. von Gribnberger, Die angelsächsischen runenreihen, 7.
$r$ : the rune is very faint. The value is indicated by $r$, to the left of which there are traces of another letter (an erased $e$ ? or rather $c$, cf. the next rune).
$c$ : this rune too is barely visible; it has a straight lateral stroke, not a curved one as in Massmann's drawing.
$\mathbf{g}$ : the slanting stroke is much longer than in the other versions. The $u$ of the name gibu is somewhat worn, but there can be no doubt about the reading.
$\mathbf{w}$ : the rune looks rather like a $P$ open at the top. The value is $u u$, or perhaps $i i u$ or $n u$; at any rate not $h$ as with Massmann.
$h$ : what is visible of the rune clearly points to $h$, not to the sort of $o$ given by Massmann; the value is clearly $h$; of the name only haga is more or less visible.
$\mathbf{n}$ : the rune is rather faint; the value is $n$ (or $u$ ), the name no and one more letter, only the vertical shaft of which remains. Massmann interpreted it as $l$, but $d$ is equally possible.
i : Massmann seems to have skipped a line, in which only the rune can easily be read; the rest was probably $i$, iis.
j: the vertical stroke of the rune does not cross the circle, as in Massmann's drawing. The value $g$ is clearly visible, and so is the first letter of the name. The third letter may have been $r$; (or $b$ ?) but for the rest it is impossible to decide whether Massmann's reading (or rather guess) is right : gar (?).
3 : this rune too has been overlooked by Massmann. Of the rune itself only two short strokes are visible. They may be completed to mean either 3 or ea, but the former is the more probable interpretation (cf. 3 in the Salzburg manuscript). The value is $k$, the name is practically illegible;
$\mathbf{p}$ : of this rune two variant forms are given : one is the type found in the other versions of this fuporc, the other is the regular $p$-rune. The name looks like ppod or peod. The former reading could perhaps be interpreted as due to the fusion of the value and the name. At any rate Massmann's
peta (?) and von Grienberger's correction to *pert are impossible.
$\mathbf{x}$ : this rune comes much closer to the original OE. $\mathbf{x}$ than to that in the other versions (which have Roman X). It may have been borrowed from the preceding alphabet, but it is also found in the Salzburg fuporc. As against Massmann's hix I read $l u x$ for the name, with faint traces of one more letter before $l$ ( $e$ ? with the $x$ indicating the value one may practically read xelux).
s: the name sigi has an accent on the first $i$.
$t$ : the letter indicating the value is about twice the size of the other letters and seems to have been inserted after the name was written. The name reads $t u$, or rather $t i i$ (there is an accent over the last stroke)
b: there can be no doubt about the name being berth.
e: the rune is hardly visible; what Massmann interprets as $\mathbf{m}$ might just as well be a regular $e$. The value is also quite faint, but the name is clearly éch.
$m$ : this rune too is very faint, and so is most of the $m$ showing the value. Name : man.
1: this and the following runes seem to have been retouched by a later hand, and not always in a happy way. The $l$-rune and the following letter $l$ have been merged into some sort of M .
0 : of the name only $n c$ is clearly visible; at one time $n$ was preceded by another letter, as is shown by the accent That letter was probably $i$.
d : the value $g$ assigned to this rune may go back to a faint $t$ In the name tag final $g$ is only partly visible.
$\alpha$ : the rune looks much like a minuscule $g$; in the other versions too the lower ends of the downstrokes are turned inwards. The name odil is corrected from olil.
$x$, $a$ : the $x$-rune comes first, with the value $a$ and the name $a c$; the $a$-rune looks rather like a somewhat carelessly drawn $\mathbf{p}$; its value is also $a$, its name asc. Both names have an accent on $a$.
$\mathbf{q}$ : the rune is a somewhat distorted $\mathbf{p}$, the value plainly $q$. The name reads $r u$, with traces of one more letter ( $r$ ?). $z$ : the value $z$ is rather vague, the name still more. But there is little doubt that we have to read aer. What Massmann took for a final $b, h$ or $l$, is only the end of the line which separates the runic material from the rest of the text on this page.
The isruna text shows some interesting variants. First of all, the word -runa is treated as a Lat. fem. $a$-stem, and hence we find Isrune ... Hagalrune ... This eliminates the difficulty we find reflected in B and SG, where the scribes hesitated between a Lat. neut. pl. and a Lat. fem. sg.; only Tr is consistent in interpreting runa as a neut. plur. Then there is hagal- in hagalrune, which is probably due to the influence of the runename hagal. We find the same variant in the Salzburg version, where it is said explicitly that this type of secret runes is based on the rune hagal, but that part of it is left off or changed (" partem eiusdem litterę ablatam uel mutatam scito"). This interpretation, also implicated in the Vatican manuscript, became rather obvious as soon as the meaning of hahal was no longer understood. Here we may perhaps look for the reason why the scribe of $U$ did not finish his version: he must have been aware of the fact that his hagalrune had nothing to do with his hagal, neither that in the alphabet nor that in the fuporc. In fact the manuscript shows no trace of erased hahal-runes. The Salzburg scribe, on the other hand, had no misgivings and added a (quite vague) explanation.
A third point of interest lies in the example illustrating the isruna, the only example given here. It shows the following formula : $1 / 6 \quad 3 / 6 \quad 1 / 5 \quad 1 / 2 \quad 1 / 8$. Two 'mistakes' must be explained : $3 / 6$ for $\propto$, instead of $3 / 8$, and $x / 8$ for the last letter. To begin with, as we saw on p . ro5, $3 / 6$ for $\propto$ is not unparalleled : it is also found in the five cryptograms of the Trier manuscript. But there it is justified by the fact that the first two runes of the third $x t t$ have been added to the second $x t t$, thus shifting the $x$-rune from the 8 th to the 6 th place. A fuporc showing the same subdivisions $8: 10$ : 10 must be at the basis of the
$3 / 6$ in the Vatican manuscript. The $1 / 8$ for the last letter requires another explanation. As it stands, it would mean $w$ (or $u u$ ), which does not make sense. Again we must turn to the Trier version to understand U. In Tr the example reads coruus, not corui as we find in B and SG. Coruus may be transcribed $1 / 63 / 81 / 51 / 21 / 22 / 8$. It is easy to see what happened in $U$ : the last two groups $\mathrm{I} / 22 / 8$ were merged into one, $1 / 8$, which 'haplology' may have been laid near by $1 / 2$ occurring twice. It is obvious, then, that the Vatican and Trier versions are derived from a common ancestor; and there are other similarities which may point in the same direction, e. g. the correct ostendunt in the hahalruna paragraph (B ostendit, SG ostenditur).
5. Salsburg, Stift St Peter, MS. a $1 X 32$ (saec. X/XI) (S).

The contents of this manuscript mainly consists of canonical texts. Owing to their importance the manuscript has received much attention. But its runic material has hardly caught the eye of runologists, although it was edited (with a facsimile) as early as 1864 (1). Yet it shows an interesting development of runic cryptographic lore, and gives us some important information not provided by the terse version found in the otherfour manuscripts.
Binding of the 16th or 17 th century : filletted leather over wooden boards, clasps missing. Heavy parchment, well preserved. The 218 folios (2) form
28 quires, numbered I - XV and I 28 quires, numbered I - XV and I - XIII, and arranged as follows: 2 IV [1-16] + III [17-22, Ph. 17-24] +5 IV [23-62, Ph. 25-64] + IV ( -2 ) $[63-68$, Ph. $65-72]+15$ IV [69-188, Ph. 73-192] + IV $(-2)$ [189-194, Ph. 193-200] $+\mathrm{V}(-2)[195-202$, Ph. 201-208] +2 IV [203-218, Ph. 209-224]. Format $278 \times 222 \mathrm{~mm}$, written area $222 \times 158 \mathrm{~mm}$; one column, 30 lines (1) [G.] Phillips, Der Codex Salisburgensis S. Petri. IX. 32. Ein Beitrag zur Geschichte der vorgratianischen Rechtsquellen. Sitzungsberichte der philosophisch-historischen Classe der kaiserlichen Akademie der Wissen schaften, Wien, 44 (1863-1864), 437-510, esp. 508 ff.
Codex Salisburgensis, gives a different have had 226 folios. G. Phillips, Der lieved to be missing. But since he did not take account of all cases, I have preferred to keep the foliation of the manuscript in this description, adding Phillifs's numbering between brackets. In the survey of the contente however, I have given Philurrs's figures, as his account is usually followed in the works referring to this manuscript.
to the page. The two parts : $A=$ fols. $1-116$ (Ph. $1=120$ ) and $B=$ fols. $117-218$ (Ph. 121-224) are approximately of the same date; they may have been intended from the beginning to form a unit. The whole may be dated saec. X/XI. The origin of the manuscript is unknown. It shows some affinity with Western Germany : its collections of canons are based on those of Regino Th Prim, or related to his ( $)$.
號 in detail by Phillips. Here follows hi brief outline (2) in
fol. $\quad \mathrm{I}^{\mathrm{r}}:$ Summary of contents.
: Formata, sent by Bishop Ruodbert of Metz (883-905) to Archbishop Wilibert of Cologne ( ${ }^{870-889}$ )
2-94 : Cresconius, Concordia Canonum.
25-120r: A collection of canons from
120' : Bede, De remediis peccatorum.
121-153 ${ }^{\text {r }}$ : Liber Canonum, from Hrabanus Maurus.
153 : Canon of the council of Tribur. Eerem Augustine and Gregory
156: Canons of the council of Tribur.
57-161" : Canones Synodi Romanorum ad Gallos episcopos.
$161^{v}-170$ : Diversae sententiae Canonum.
170-171² : Praecepta S. Clementis Episcopi.
171"- $172^{2^{\prime}}$ : Excerpts from Isidore.
$17^{\gamma}$ : Ex decretis Vigini papae.
172 ${ }^{\gamma}-194^{\gamma}$ : Hincmat of Laon's Pittaciolus.
194-198: Ex dictis sanctorum Patrum, etc.
198-204 ${ }^{7}$ : Collection of canons.
204- 208 : Conventus Ticinensis
208-212: Capitula Angilramni.
213 : Decretale of Hadrian II
$223^{\mathrm{Y}}$ : Truma tets (ct (
$224^{\mathrm{r}}$ : Regula formatarum.
The isruna tract is well embedded in the material of the manuscript. It is preceded by "Concilio Heliberit. tit. LXXV", (fol. $217^{\mathrm{r}}, \mathrm{Ph} .223^{\mathrm{r}}$ ) and immediately followed by " EX CONCILIO TOLETANO. Tit. XI", (fol. 217. ${ }^{\text {v }}$, Ph. $223^{\mathrm{v}}$ ); it is obviously written by the same hand, which also added the regula formatarum on fol. 218 ( Ph .224 ). The isrina tract is no hurried addition; the compiler seems to have inserted it with some definite purpose in mind.
(x) P. Fournier-G. Le Bras, Histoire des collections canoniques en occident depuir les fausses decretales jusqu au decret de Gratien. Paris, 1931-1932, vol. 1, 216, 262, 263, 267, 269, 273, 305, 438.
(2) G. Philups, Der Codex Salisburgensi, 440 f .

As to the reason why the isruna text should have been included here, Phillips gives a hint but rejects it immediately

Man könnte wohl dafür halten, dass es sich hier an völlig ungehöriger Stelle befinde, wenn nicht etwa es ebenfall zum Gebrauche bei den Formaten empfohlen werden soll was aber doch immer unwahrscheinlich sein möchte ( I ) It appears, however, that the regula formatarum (2) and runic material are found together in two other manuscripts as well Leyden MS. Voss. Lat. fol. $12 \delta$ (regula formatarum + runic alphabet) and London B. M. Harley MS. 3017 (litterae for matae + runic alphabet). Since these three manuscripts can hardly be related, some explanation for this threefold occurrence must be found. That runes should have been used to authenicate litterae formatae is, indeed, not very probable. But the regula formatarum may very well have reminded a scribe the system of secret writing which was lingering on in some schools or scriptoria. The isruna tract, with its play with ank-numbers and group-numbers, in fact parallels the use of the Greek alphabet and numerals as explained by the regula airly well and may have served as an introduction. regula other manuscripts only a runic alphabet has been added; its inclusion will rather have been prompted by the preceding Greek material. These explanations are, I believe, sufficient to account for the presence of the runes; no hypothetical use in litterae formatae is needed to justify it.
Arrangement of fol. $217^{\mathrm{v}}$ (Ph. $223^{\mathrm{v}}$ ) :
II. 1-3: Introduction to the fuporc.
11. 4-9: Fuporc.
II. ro-19 : Text.
11. 20-22 : Examples.

1. 23 : blank.
(1) G. Phillips, Der Codex Salisburgensis, 508
(2) C. Fabrtcius, Die Litterae formatae im Frühmittelalter. Archiv für Dictionnaire d'archéologie chritienne et de bit
V. Gardthausen, Die griechische Schrift le liturgie IX, 2, 1571-6.

Byzantinisch-neugriechische Jahrbücher 8 tes Mittelalters im Westen Europas. B. Вівсноғf, Das griechische Element, 8 (1931), 114-135 (i19 f.).
11. 24-28: EX CONCILIO TOLETANO. Titulus XI.

In the Salzburg manuscript the text has been provided with an introduction, explaining the fundamental principle of the cryptic systems to be discussed afterwards: the fubore is divided into four groups of letters, the first three having eight runes each, the fourth four. In the other versions the first two groups must originally have had eight runes, whilst it is not clear whether the remaining runes formed one group of twelve letters or were divided into $8+4$. Only the St. Gall version maintains this situation; all other manuscripts make or imply changes in the subdivisions (cf. pp. roi, ro5, etc.).
The Salzburg manuscript is also the only one to indicate clearly the actual groups in the fuporc. On the other side it omits the names of the runes in the fuporc; only the names of the runes mentioned in the text are given. The fuporc calls for the following remarks :
$\mathbf{p}$ : the rune looks like a $\boldsymbol{c}$-rune with a straight lateral stroke; as the manuscript is plainly legible, this distortion must have occurred in the course of repeated copying.
g : the rune shows the type commonly found with the isruna tract, but the value reads $s$, In all probability this is ultimately a misreading for an insular $g$, which, if the top stroke was not very clear, could easily be interpreted as $s$, especially when standing by itself.
h: this rune has been so completely distorted that it reminds one only vaguely of $h$.
$\mathfrak{j}$ : the value of this rune is rightly given as $g$.
3 : this and the following rune are inclined to the right, as if drawn in a careless way not found with the other runes. The value of the eoh-rune is $h$, whereas the other manuscripts have $k$. But $h$ is also found in Oxford MS. St. John's College 17 , and Vienna MS. 795 has $i \& h$.
$\mathbf{p}$ : the same type as found in the other manuscripts, with the distortion mentioned under 3 .
$\mathbf{x}$ : the rune has the same form as that in the Vatican manuscript. It is the regular form of $\mathbf{x}$ in the De inventione alphabets and also in the 'Syriac 'alphabet of Munich MS 14436 (this alphabet is based on a fuporc as found with the isruna tract, cf. p. 254 ff.).
g : the value of the rune is $n$ (in in B, SG and Tr).
d: the intersecting strokes are placed so high, that the rune looks more like a perfect $m$-rune; the value $t$ is also found in the other versions
a : value $a a$; the second $a$ is a pointed open $u$-form.
As to the text, it treats runa as a fem. sg. $a$-stem, using the plural when the word is used alone (quę runę dicuntur), but a (collective?) singular with the compounds isruna, lagoruna, hagalruna and strophruna.
The' Salzburg version is also remarkable for its explanation of the hagalruna, mentioned before in the discussion of the Vatican manuscript. Our author was aware of the difference between the $h$-rune (name hagal) and the sort of symbols he called hagalruna, and offered an explanation : to facilitate writing, part of that rune was suppressed or changed. This explanation can of course not be taken seriously : almost any rune offers a closer resemblance to the hagalruna than pre-cisely the hagal-rune.
Finally the examples illustrating the four types of cryptography mentioned in the text call for comment. Three of them read $1 / 54 / 5 \mathrm{x} / 6 \mathrm{I} / 6 \mathrm{x} / 4=$ RACCO; only the hagalruna gives an obviously mistaken $\mathrm{I} / 5 \mathrm{f} / \mathrm{x} \mathrm{I} / 6 \mathrm{I} / 5 \mathrm{I} / 4=$ RACRO. The word Racco is in all probability the name of a person, perhaps a "Koseform " of a name beginning with Ragin- (1). It may very well have been the name of the author of our version or of the scribe, but I think it is hardly worth while trying to identify this Racco (if $=$ the scribe) as long as the history of the school of handwriting to which our codex belongs has not been made. Rac, but mentions also other possibilities.

On the other hand it is important to note that several of the collections of canons point to an origin in the Rhine area (1). This connects our manuscript, geographically at least, with Tr and U .

For the rest, however, it treats its subject very freely, as the text given here shows :

Notum sit omni litterarum quę runę dicunturi ${ }^{\mathbf{1}}$ scientiam habere uolenti, / quia in IIIIor uersus uel ordines diuiduntur. Primus ordo continet litteras VIIIo, $/ \sec u n \mathrm{~d} u$ s itidem VIII, tertius similiter VIII ${ }^{\circ}$, quartus quattuor.
[Fuporc, with indication of subdivisions:] [P]rimo ${ }^{2}$ ordini he deputantur; Secundo uero he; Tertio uero he; Quarto he. De his litteris tres sequestrantur quibus singulis totum quod uelis scri/bere potes, id est [is] ${ }^{3}$, lago \& hagal. Quod per i solam. scribitur, isruna uocatur; / quod per lago, lagoruna; quod per hagal, hagalruna. Ergo si per i uel 1 scri/bere uolueris, primum breuiori i vel 1 ordinem notabis, longioribus ${ }^{4} /$ uero litteram. Quod si per hagal scribere uolueris, in sinistra parte quotus / sit ordo, in dextera quota sit littera notabis $\&$ ob facillitatem scri/bendi partem eiusdem litterę ablatam uel mutatam scito. Est \& stroph ' $r$ 'una / quę solis punctis constat, que' hac ratione scribitur, vt superius or/do, inferius litterę designentur; $\& u t$ facillius intellegatur quod dicitur / promptum ponamvs exemplum. AmeN.
Then follow the four examples, each with its name : isruna; lagoruna; hagalruna; strophruna.
Rem. ${ }^{1}$ Ph.]dicantur;
2 When Phillips saw the manuscript the $P$ of Primo must have been clearly visible, as is shown by his facsimile; it has suffered some damage since, becoming almost illegible.
${ }^{3}$ the name of the $i$-rune is omitted; Ph.] is et?
${ }^{4}$ breuiori ... longioribus: the difference in number may be due to the influence of the example, the first letter (I) Cf. p. 114 and note I.

## of which, $r=1 / 5$, had one small $i$-rune and five longer ones.

We saw that it was hardly possible to identify the Racco mentioned in the example. If we may depend on the evidence provided by the other manuscripts, which transmit the 'exemplum ' fairly faithfully, it looks rather probable that the scribe found Racco in his exemplar. At any rate we must consider $S$ as a copy : only thus can the omission of is in 1.8 , and especially the rather 'worn' state of the runes be explained. The open $a$ in $a a$, too, must be due to an older exemplar.
Owing to the almost complete independence of $S$, it is hard to ascertain where it branches off from the other type (provided the latter preserves the more original type). If any store can be set on the absence of the clopfruna, one would suppose the Salzburg version to have branched off from a type anterior to the SG-B version, or rather from that circulating in the Rhine area (Braunweiler, Trier?) reflected in Tr and U. This latter suggestion fits in well with the contents of $S$ : its canonical material is (in part) closely related to the collection of canones compiled by Regino of Prüm (1). It may also be corroborated by the substitution of hagal for hahal (cf. U).

On p. 115 it was suggested that the isruna tract was perhaps included on account of its relationship with the regula formatarum. In fact the two texts show a somewhat similar approach : fol. $117^{v}$ (Ph. 223v) :
Notum sit omni litterarum quę runę dicuntur scientiam - habere uolenti quia in IIII uersus uel ordines diuiduntur.

$$
\text { fol. } 118^{\mathrm{r}}\left(\mathrm{Ph} .224^{\mathrm{r}}\right) \text { : }
$$

Gręca elementa litterarum numeris (read:- -os) etiam exprimere nullus $q u i$ uel tenuiter greci sermonis notitiam habet ignorat.
There is, however, a striking difference : whereas the isruna text is fairly correct, the text of the regula shows an appalling number of blunders and omissions, some of which make it practically useless.
(i) Cf. p. II4, note I.


## The Isruna Tract

From the combined evidence of the first four manuscripts, the following fuborc and text may be reconstructed :

## feh ur dorn oos rat cen gebo huun

 Kf Mu $\mathrm{P}_{\mathrm{d}} \mathrm{K}_{\mathrm{oo}} R_{r} h_{c} \mathrm{~K}_{\mathrm{g}} \mathrm{P}_{\mathrm{uu}}$

## ac asc.ur aer <br>  Fig. 15

The text given here is based upon all four manuscripts, but mainly on SG and $B$, these being the oldest versions. All variants are given below each paragraph, and also the readings proposed by Grimm (1), Hattemer (2), Steffens (3), Raucq (4) and Arntz (5). All other editors depend on one of these editions.

Iisruna dicuntur quae $i$ littera per totum scribuntur, ita ut quotus uersus sit primum breuioribus $i$, quae autem littera sit in uersu longioribus $I$ scribatur, ita ut nomen corui scribatur his litteris ita.
SG : $\mathrm{d} \overline{\mathbf{r}}=$ dicitur; quę (passim); $\mathrm{rr}=$ nutem; littera.
B : litera, etc. passim.
Tr : littera (1. x); [his litteris] om.; the ifollowing breuioribus is a capital, the one following longioribus a minuscule i.
(1) W. Gumm, Ueber deutsche Runen, 110 ff.; correcting remarks are given y E. G. Graff, Sprachschatz 11, 523 f
(2) F. Strprksis, Lateinische Paläographie ${ }^{\mathbf{2}}$, transcription facing Plate 53b. (1) E Pruce Die Puren des Briusseler Codex No $9565-9566$, transcription on folding leaf opposite p. 26.
(5) H. Arntz, Eis-und Wasserrunen, 27I f., an attempt to reconstruct the original ("Die ursprüngliche Form laszt sich also mit einiger Sicherheit bestimmen ").

U : Isrune; litteris (1. 1); [ita] the Ms. reads rather like n\&; [sit] om.; (passim); longioribus I [scribatur] om.; c[or]ui: the second and third letter have been damaged when the following paragraph was erased; at first sight one might read cerui, but the stroke through the O is accidental.
Edd.: Iismana] Steffens read Usruna; autem] Steffens alone explained the SG abbreviation correctly; Grimm read ' K (C ')', Hattemer haec, Arntz "St, Gallen hat $h$ mit Verweisungszeichen, von uns (1935) als haec ufgelost und vom Schreiber wahrscheinlich auch so germeint"; Raucq takes no decision.

Lagoruna dicuntur quae ita scribuntur per $l$ litteram ut nomen corui.
SG. : que
B. : literam

Tr. : quae
U. : om. (erased).

Edd.: Arntz remarks : " Beide Handschriften [i.e. SG and B] geben das lagoZeichen an dieser Stelle als .1 . wieder; es musz aber $\wedge l$ sein, wie auch das Beispiel ergibt"; such a change, however, it not necessary, as littera may mean ' the nune 1 .
Hahalruna dicuntur istae, quae in sinistra parte quotus uersus sit ostendunt, et in dextera quota littera ipsius uersus sit.
SG. : iste quę; [sit] first time om.; ostendit with abbreviation mark over final $t,=$ tur.
B. : iste que; ostendit; dextra

Tr. : que ita scribuntur: in sinistra parte quotus uersus sit ostendunt, in dextera, etc.; final [sit] om.
U. : Hagalrune dicunt[ur]; [istae] om.; que; quotus sit uersus; in dex[...] quota sit littera [...] rest erased.
Edd.: SG ostenditl Grimm, Hattemer : ostenditur; Steffens : ostendit, "für ostendunt"; Arntz would propose an alternative reading allowing to keep ostenditur (...istae : in sinistra parte ... ostenditur); but since it obliges him to drop quae, it is better to emend ostenditur to ostendunt, foilowing the text of $\mathbf{T r}$.
Stopfruna dicuntur quae supra in punctis quotus sit versus, subtus litteram ostendunt; sed aliquando mixtim illa faciunt, ut supra sint puncti qui litteram significant, et subtus ordo uersus.
SG. : Stofruna; que; subtus littera] subtiliter; illas.
B. : Stophruna; literam; illas.

Tr. : Stofruna; que; 1. 2 litteris; [significant] omi; uersum
U. : om

Edd.: SG stofruna] Hattemer read soofruna; this is probably the form to which Arntz alludes in a footnote: "Von W. Grimm als scoofruna which Arntz alludes in a footnote: "Von W. Grimm als scoofruna;
(St. Gallen) gelesen "; Grimm has the correct reading stofruna; significant] SG has sigit which Hatterner read signant, all other edd sigmificant.
Clopfruna dicitur quae pulsu efficitur distinctis personis et litteris, ita ut primum incipiatur a personis, postea a litteris. SG. : que.
B. : This paragraph comes at the beginning of the tract; it ends, hownever, with $a$ positura, which shows that it really belongs at the end; Clophruna Not in Tr and U .

## The Runes (i)

The runic forms of $S$ having been discussed separately (p. 116 f .), only the more important divergences will be mentioned here; for the evidence of U, I also refer to the special discussion on p. log ff. The runes fborwhijzstbe in 1d\&aæ call for no comment as far as their forms are concerned.
$u$ : in $B$ and $S$ this rune tends to become rather like a minuscule $n$
c: B and SG have a rounded $h$-like type, whilst the other three manuscripts give the rune with a straight lateral stroke.
$g$ : the same type occurs in a number of runic alphabets (Exeter MS. 3507 and the related Cotton MS. Vitellius A 12 and Phillipps MS. 3715 ; also in Leyden MS. Voss. Lat. F. 12 ) , as well as in Nemnivus's alphabet (2). Its occurrence in the 'Syriac' ( $=$ runic) alphabet of Munich MS. $1443^{6}$ is easily explained : this alphabet is derived from a fuborc of the isruna type. The creation of this
(1) E. Rauce, Die Runen des Brüsseler Codex $N^{\circ} 9565-9566,14$ f. H. Arntz, Runen urd Runennamen, 174 ff .

Although the values are discussed together with the rune-names (p. 124 ff ) ome reference to them is unavoidable in this section
(2) It is not found in the runic alphabets of Cotton MS. Galba A 2 and Ox ford MS. St. John's College 17 (G. StEphens, Monuments I, nos. 13 and 3r) as Miss Ravca holds (Die Runen des Brüsceler Codex $N^{0} 9565-9566$, 14, footnote), but in the Nemnivian alphabets of those manuscripts, cf. infra, p. 157 ff
rune, or perhaps rather its selection, seems to be connected with the introduction of X for $\mathbf{x}$. Formally this new $\mathbf{x}$ coincided entirely with the old $g$-rune, and this may have led to another type being substituted for the original $g$. As to the origin of the new $g$, Arntz proposes two solutions : either it is the original $g$, altered in such a way that it had a (more or less) vertical shaft; or else it is the old $j$-rune an s-like form of which is known from Scandinavian and German inscriptions, with a vertical shaft added ( 1 ). Since the type of $\mathbf{j}$ which Arntz chooses as a starting-point in his second proposal is not known from England, I believe we have to accept the first possibility. This new g seems to have been known only in a restricted area : Exeter MS. 3507 and the related manuscripts point to $W$ and SW England, and so does. Nemnivus's alphabet (2). This may throw some light on the origin of the isruna fuporc.
n : in B the rune is reversed, but this can hardly be due to Norse influence. In $\operatorname{Tr}$ it is not possible to decide which of the two types was actually meant, as the rune is a regular $X$.
$p$ : this type of $p$-rune is not found elsewhere; two of the manuscripts, $U$ and SG (in the alphabet), also have the normal type of $\mathbf{p}$. A similar rune occurs twice in Oxford MS. St. John's College 17 , but each time with the value $q$; it is obviously derived from the $p$-rune. The same explanation probably holds for that in the isruna fuporc The letter which takes the place of $p$ must originally have been $q$. We shall see that very often the form of $q$ is a more or less fanciful distortion of the regular $p$-rune.
$x$ : cf. $g$. The difference between $S G, B$ and $\operatorname{Tr}$ on the one hand, and $U_{\text {. }}$ and $S$ on the other, is of special importance. The latter two borrow their $\mathbf{x}$ from the $D e$ inventione alphabet.
(1) H. Arntz, Rumen und Runeniamen, 177
(2) Yet we should not forget that the runic alphabet of Exeter MS. 3507 etc., was probably imported into England from the Continent.
$y$ : the same type of $y$ is found with various values in a number of fuporcs and alphabets : for $x$ in Paris MS. Arsenal 1169 (or $=y$ ? ); for $y$ in Munich MS. 14436 ('Syriac alphabet '); for $h$ in Cotton MSS. Domitian A 9 and Otho B 10 (?), as a variant of the normal $\mathbf{h}$; also in Exeter MS. 3507, Cotton MS. Vitellius A 12 and Phillipps MS. 3715 We shall examine later on how these different values can be reconciled. In $U$ the two short strokes transecting the stem are not parallel, but they meet to the left of the stem. Much the same form is found in Nemnivus's alphabet (with the name hinc), but it is doubtful whethe any special conclusions can be based on this similarity.
$\mathbf{q}$ : at this place of the fuporc we expect $\mathbf{y}$; in the longer fubores $q$ is no. 26 or 27 . Our fuborc had originally $y$ for no. 27 , as may safely be concluded from the name yur in $B$ and SG. The reading in $U$ may also go back to such a form. This, however, leaves the form of the rune, a regular $\mathbf{p}$, unexplained. It looks as if two traditions had collided : one with $y$ and the name $y u r$, the other with $p$ and $q$ (the latter two having changed their values to $q$ and $p$ respectively); $q$ perhaps had the name cur. Since $y$ and $q$. (i. $e$ : original $p$ ) show some resemblance, confusion may have arisen at this point. Cf. also p. The fact that U has both forms for $p$ is not so significant, as this may be due to the influence of the De inventione tradition.
$z$ : the ea-rune appears to have been interpreted as $z$ in a number of Continental alphabets as well, but it is also found for $x, y, k$, and $q$, all letters to which no rune of the original fupark corresponded.

## The Values and Rune-Names ( 1 ).

f: the value is $f$ in all five manuscripts, but the names show some divergence. B and SG have feh, a form reflecting the OE. name. Tr has a mistaken fed. The fue of U is
(1) E. Raucc, Die Runen des Briusseler Codex $N^{0} 9565-9566,15 \mathrm{ff}$. I. Arntz, Runen und Runernamen, 192 ff.
not so easily accounted for. One might feel tempted to correct it into feu, the form found in some Scandinavian name-lists, in the 'Arabic' alphabet of Munich MS. 14436 (showing a strong Scandinavian element) and in Phillipps MS. 3715, the evidence of which cannot be checked. In the absence of clear evidence for Scandinavian influence in U (apart from that normally found in the De inventione alphabet), the origin of fue remains obscure. At any rate von Grienberger's proposal fue $={ }^{*} f$, ué may safely be rejected.
$u$ : the value $u$ is shown to indicate long $u$ by the spelling of the name uur in SG, B and Tr. U has uor, hardly a mark of diphthongization of $u$, more probably a mistake (1).
$\mathbf{b}$ : the five versions are unanimous on the value $d$, which is supported by the name dorn (SG, B, U). Tr with its difficult exemplar writes doro. As Gmc. $F$ became $d$ and then $d$ everywhere in Continental Germanic, but at different moments, dorn may be a criterion for a rough localization of our text. We must not forget, however, that $d$ for $\bar{b}$ is also found in early OE. manuscripts (2).
0 : $B$ and SG stress the length of this rune by spelling. the value $o o$; the other manuscripts have $o$. The length is also indicated by the form oos in SG and B; this form must also have occurred in the prototype of U and Tr , but the former misread the first $o$ as $e(e o s)$, the latter as $c$ (cos).
$\mathbf{r}$ : The name rat, compared with OE. rad, shows an adaptation to Continental Germanic phonology. The shift may imply a conscious or unconscious change of meaning : OE. rad 'riding' : OHG. rat 'consilium'. It may also help to localize the isruna tract, as the shift of final $d$ to $t$ did not occur farther North than the Rhine-Franconian area.
(I) W. Bruune, Althochdeustsche Grammatik, § 41 : $\bar{u}>u_{0}$ is very rare in OHG.
(2) E. Sikvers-K. Brunner, Altenglische Grammatik, § 199 A. i.
c: both the value $c$ and the name cen faithfully reproduce the OE. model in all versions.
$g$ : the value $g$ is found in all five versions, but the names. differ : SG, B and Tr have gebo, U has gibu. The latter may either be a variant form of gebo ( $i$ being due to the influence of following $u$, or $e$ retained on account of following $o$ ), or it may be a form borrowed from the preceding De inventione alphabet. Neither is the OHG. (nor the OLG.) form corresponding to OE. giefu, gifu: we should rather expect giba. I fail to see what Arntz means by "gebo, womit die germanische Grundform geбó" Gabe" wieder gewonnen ist" (1); hardly that our gebo is the OGmc. form. Forms with geb- are not unknown from English texts (2), and therefore it is difficult to decide where the form gebo arose.
w : all five manuscripts spell the value of this rune $u u$. On the name they agree with initial $h$, but U has hun against huun in SG, B and Tr. In huun the first $u$ may stand for $/ \mathrm{w} /$, the second for OE. $y$. The latter sound often caused some trouble to Continental scribes: OE. yr is spelled ir, uir, uyr, and also huyri, huyry, huuri, hyri. Here we have also an explanation for initial $h$ : it is a meaningless addition found with a good number of runenames having an initial vowel : his, hac, hur. Initial $h$ is often added in OHG. sources; also sporadically in OE. (3).
$\mathbf{h}$ : value $h$ and name hagal (U haga[.]) without exception. The name is an adaptation to Continental Germanic. OE. had either hægl (also hegel, hægil, hxgel, hegil, heil) or else hagol; the latter, however, is never found as a rune-name.
n : all manuscripts agree on the value $n$ and the name nod. Why Arntz should call the latter ' neither English nor
(1) H. Arntz, Runen und Runennamen, 229; on the same page gebo is said
to be "eingedeutscht". to be "eingedeutscht"
( (2) H. Ström, OLd English Personal Names, 132 f.
(3) W. Braunk, Althochdeutsche Grammatik, $\S \times 52 \mathrm{a}$.
E. Sigvers-K. Brunner, Alienglische Grammatik, §217 A. i.

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German ', is not clear (1). The form nod, with final $d$, is very rare as compared with not, but it is at least found in the Heliand and the Ludwigslied. The preservation of $-d$ may help to localize the fuporc. One might also compare nod with OE. nop 'boldness', but since the latter is not found as a rune-name (OE. only nead, ned, nied), our nod is rather a translation of the OE. word.
i: both on the value ( $i$ ) and the name (iis) there is complete agreement. The double $i$ in the name indicates the length of the vowel.
$j$ : all five versions render the value of this rune by $g$, the normal OE. spelling for / $\mathrm{j} /$; this spelling is also known from OHG. manuscripts (2). In Germany the name ger, which is found in three manuscripts, may have been interpreted as ger 'spear'.
3: four versions (SG, B, Tr and U) have the puzzling value $k$, to which S opposes a more correct $h$. The value is $i h$ (in $U$ it is illegible). Arntz explains $k$ by the influence of the Latin alphabet. He seems to imply that the runic alphabet (found in SG only) led the scribe to assign values not in the fuporc, e.g. $k, z$, to runes which otherwise would not have fitted into an alphabet ( $3, i h ;$ ea, ear). In the case of $\mathbf{p}: \mathbf{q} I$ have admitted that a runic alphabet may have played a part, but that is precisely a point where the runic alphabet in SG corrects the fuporc (cf. p. 94). I rather tend to believe that $k$ is a mistake, since $S$ has $h$. The latter agrees with the name ih, a regular OE. form (3).
$p:$ apart from $U$, where the reading is doubtful, the manuscripts agree on the value $p$ and the name perd. The latter is an adaptation of OE peord, perd.
$x$ : the value of this rune is $x$, and the name elux ( $\mathrm{SG}, \mathrm{Tr}$, probably also in U ) or elox (B), but the runes differ : $S$ and $U$ have a type borrowed from the De inventione alphabet (cf, supra).
(1) H. Arntz, Runen umd Runennamen, 228.
(2) W. Braung, Althochdeutsche Grammatik, $5 \times 5$ fi.
(3) E. Sievers - K. Brunner, Alienglische Grammatik, § 250 A. 2.
s: the name sigi seems to imply that the common ancestor of SG, B, Tr and U was not free from mistakes : in the common prototype the final letter of sigil must have been omitted, cf. sigel in English manuscripts, sygil in Vienna MS. 795, etc.
$t$ : the value is $t i$ everywhere, but the name seems to have caused some difficulty. SG and B have $t i, \mathrm{U} t i i$ or $t u, \operatorname{Tr}$ a puzzling tan. This last form is clearly a mistake, perhaps influenced by tag (the name of the original $d$-rune). If U may really be read tii, this spelling indicates the length of the vowel; cf. Tiig in early English texts (and tu in Vatican MS. Regin. 338).
b: here too there is some disagreement over the name: SG and B write berg, U berh, Tr ber (this last form is probably due to an imperfect prototype). In berg and berh we have to see adaptations of OE. beorc, berc, probably accompanied by a change of meaning ('mountain' instead of 'birch', which should have become OHG. biric, birich). The reading berg is supported by Munich MS. 14436.
$e$ : the name is $e h$ in $\mathrm{SG}, \mathrm{B}$ and Tr , ech in U . The latter is only a scribal variant, perhaps influenced by ech in the preceding runic alphabet.
m: value $m$, name man without exception.
1: the only point of interest is the final vowel : B has lagu, against lago in the other versions. The coexistence of final $o$ and $u$ is well known both in OE. and OHG. grammar ; the transition $u>o$ may have occurred in either territory ( I ).
刀: $\mathrm{SG}, \mathrm{B}$ and $\operatorname{Tr}$ give the value $i n, \mathrm{U}$ and $\mathrm{S} n$; in $\mathrm{SG}, \mathrm{B}$ and $U$ the name is inc, $\operatorname{Tr}$ omits it. The divergence in the indication of the value is due to the fact that the acrostic principle could not play in this case : the rune stood for the final sound of its name, not for the first. Moreover that sound was hard to render; $n$ was about the best ren-
(1) E. Srevers - K. Brunngr, Altenglische Grammatik, $\$ 44$ A. 7. W. Beaune, Althochdeutsche Grammatik, $5_{58 \text { A. } 2 .}$
dering, unless one took to such complicated (and ambiguous) formulae as $n \& g$ in Vienna MS. 795. The spelling $n c$ in the name is a current $O E$. spelling for fina ng (1).
$d$ : the name and the value of this rune have been transcribed into OHG. : value $t$ (U has $g$ by mistake), name tag (cf. OE. $d x g$, deg). The change in value is obviously due to the translation of the name. The form tag may help to decide where the fuporc received its. Continental garb.
$\propto$ : the OE. name oppel, epel, too, has been translated into German; odil may again be a criterion for the localization.
a,x:these runes led to no small degree of confusion. All five manuscripts, with the possible exception of $S$ (which does not give the names), have mixed up runes, values and names. The original situation may be restored
as follows: as follows:
a, value $a a$, name $a c$ (OE. $a c$ );
$æ$, value $a$, name asc (OE. $\begin{aligned} & \text { sc })\end{aligned}$
The name $\neq$ ssc has been adapted to OHG. phonology, but not $a c$, which should have given OHG. eih. The actual
situation is as follows. uation is as follows:
B: a, value $a a$, name asc; $æ$, value a, name $a c$;
SG: $\boldsymbol{x}$, value $a$, name $a c$; a, value $a a$, name $a s c$;
$\operatorname{Tr}: æ$, value $a$, name $h a c$; a, value $a a$, name asc;
$\mathrm{U}: x$, value $a$, name $a c$; a , value $a$, name $a s c$;
$\mathrm{S}: x$, value $a$; a, value $a a$.
Consequently the runes and the values are given in the right order in $B$, the names in $S G, T r$ and $U$; $S$ reverses the order of runes, but does not give the names. This seems to imply that the common prototype arranged this The double aa of course could be interpreted differently. The double aa of course serves to indicate the length of the vowel in OE. ac (cf. Epinal-Erfurt glosses 235, Corpus 535 color : aac; and Vatican MS. Regin. 338: aac). U simplifies it to $a$. On initial $h$ in hac, cf. w.
$\mathbf{q}$ : the value of this rune is the same in all five versions, but (1) E. Silvirs - K. Brunnkr, Altenglische Grammatik, $\S 2 \times 5$.
the name reads $y u r$ in SG and B, cur in $\mathrm{Tr}, r u[r]$ in U . The latter mey go back to yur with a short $y$. The Tr form may be a concession th the acrostic principle (cur = qur). The reading qur also occurs in Munich MS. 14436. In the section on the runes I pointed out that in this place we should expect a $y$-rune, and that $y u r$ in SG and B (and also $r u[r]$ in $U ?$ ) may reflect the original situation ( r ). A $q$-rune borrowed from some or other runic alphabet took the place of $y$; that $q$-rune itself was in fact the original $p$. There is another explanation for $y u r$, but it is less probable. The name yur might go back to an original qur, either through a misreading or through a conscious . change : in the Latin alphabet $y$ was the last letter but one, and this may have played a part in this change. On the whole the first solution with its reference to the original order of the fuborc is to be preferred.
$z$ : the rune which receives the value $z$ is the ea we met in the English fuporcs. The name of ea survives in the name aer, which obviously goes back to ear. The question how this rune came to be used for $z$ is not so easily solved. The same transfer is found in the De inventione group and in Berne MS. 207, but in Exeter MS. 3507 the same rune stands for $k$, in Leyden MS. Voss. lat. F. $12 \delta$ and Oxford MS. St. John's College 17 for $x$, in Cotton MS. Domitian A 9 for $q$. It looks almost as if this rune had been used to fill gaps which appeared in the process of alphabetizing. Munich MS. 14436 still preserves the form ear (with the value e), but aer must have appeared in the common ancestor of $\mathrm{SG}, \mathrm{B}$ and U (in Tr this rune is missing).
The evidence provided by the fuporc is not unambiguous; yet it does give us some valuable information on the background of these runes. Twelve rune-names have retained their OE. form : ur, oos, cen, iis, ger, ih, elux, ti, man, lago, inc, ac; nine have been adapted to OHG. phonology, or simply translated : dorn, rat, hagal, nod, sigi, berg, tag, odil, asc. To the first category we may probably add feh and eh. The name of $g$ (I) This interpretation was adopted by Miss E. Rauca (Die Rutnen des Brisseler Codex $N^{0} 9565-9566,18 \mathrm{f}$ ), but she did not know the other versions.
may also have been borrowed from the English original. On the other hand huun and yur must have arisen on the Continent and so probably did aer. We should keep in mind that ger and man may be OHG. forms as well. But even so there is no question of a systematic "Eindeutschung": the compiler only transposed the easier words; he even shrank from a relatively easy case such as OE. ac: OHG. eih. His knowledge of OE. was very limited, and in a number of cases he was led by the sound rather than by the meaning (rat, sigi, berg). Moreover two runes changed places ( $\mathbf{p}, \mathbf{q}$ ) and the acrostic principle was abandoned in three instances (huun, yur : q; aer: $: z$ ). Whether some of these alterations occurred in the English prototype we cannot decide.
The adapted names with dentals may help to localize this German edition of the fuporc. The combined evidence of dorn, rat, nod, tag and odil points to a centre rather far North (Rhine or East Franconian ?), although at the early period in which we have to date the archetype (saec. IX ${ }^{1}$ ) the interpretation of such data is rather difficult, cf. the many $d$ 's in the Keronian glossary (1). From feh, eh, ger, elux, and probably also from perd and berg (i. e. OE. berc) we may infer that the original came from Anglian territory, and was written down at an early date (saec. VIII) (2). The fact that the $g$-rune is found in other sources pointing to a Western region (Exeter MS. 3507, Cotton MS. Vitellius A ri2, Nemnivus's alphabet) may help to narrow down the area. Cf. infra p . 157 ff .

## The Examples and the Texts.

We saw that, as far as the examples are concerned, the manuscripts of the isruna tract fall into three groups
(1) corui: SG, B.
(2) coruus: $\mathrm{Tr}, \mathrm{U}$.
(3) racco: S .
(2) W. Braune, Althochdeutsche Grammatik, § 163 A. 5. 119 f. Sirvers - K. Brunner, Altenglische Grammatik, §§ 9r, b; 108, 6 ;

This last example has been discussed on p. 117. It goes in all probability with the recasting of the text : Racco may be the name of the scholar responsible for it.
It is not so easy to establish the priority of corui or corvus. The archetype of U and Tr must have taken nomen corui to mean 'the word coruus', whilst SG and B seem to imply an interpretation such as 'the name Corui'. Although I can offer no explanation for corui, I believe it to be the original form, rather than coruus, which looks like a rationalizing modernization ( r ).

The version in SG, B, U and Tr shows a simple and straightforward parallelism, at least in the first four paragraphs. Each device is carefully described, and immediately illustrated by an example. S , on the contrary, tries to systematize by treating the first three varieties of secret writing together. The fourth variety is then discussed by itself, and all four examples are given at the end. Only two manuscripts, B and SG, also include a fifth variety. We shall see that this may well be a later addition based on a local tradition.
The five manuscripts provide the following runological information :
(a) The OE. fuporc of twenty-eight runes was divided into sections or groups, specified by $S$ as three groups of eight and one of four runes. The combined evidence of the other four manuscripts also points to a system with groups of eight runes, but we cannot make out for sure whether the last four runes formed a group by themselves, or whether they were simply added to the third section. One may even doubt whether the evidence of $S$ can be considered conclusive by itself. By choosing an example containing one of the additional runes (a), the author of the original of S was obliged to settle the status of these last four runes. All runes in the example of the other version were taken from the first twenty-four, and so the question of the additional runes could be left open. We (1) For M. OLsss's interpretation of corni, see p. 152. I doubt whether
an equation coruus $=$ OHG. hraban $=$ Hrabanus brings us any closer to the an equation cornuss $=$ solution of this riddle.
shall see, however, that on this point $S$ probably follows an old tradition (p, 141).
The groups or sections were known to Latin scholars as versus (all five manuscripts) or ordines ( S ).
(b) Within this system each rune was defined by two figures, one indicating the group to which the rune belonged, the other its place in that group. The figure indicating the group always comes first.
(c) The first cryptographic device indicates the group by a number of short $i$-runes, the place in the group by long $i$-runes. From the name of the $i$-rune, OE. its or is, this device is called iisruna (isruna).
(d) The $l$-rune (name lago) may be used in a similar way : lagoruna.
(e) The third device consists in marking the group by one, two or three short strokes to the left of a vertical shaft, and the place by one to eight strokes to the right of that shaft. In three versions ( $\mathrm{SG}, \mathrm{B}, \mathrm{U}$ ) this device is called hahalruna, in the two others hagalruna ( $\mathrm{U}, \mathrm{S}$ ). As far as I know, this name has not yet been explained ( I ). The reason is, that scholars have mostly been misled by the variant with hagal-. There can be no doubt that there is no connexion between the hahalruna and the rune hagal. I believe the solution lies in another direction. The first element of the name is OHG. hahal' cremacuia', i. e. a pothanger with a rack (2). The compound is a good description indeed of this type of secret runes, as fig. I6 (1) H. Arntx, Eis- und Wasserrunen, 273 ; "Was mag er [i. e. der Schreiber] sich aber bei der hahalmuna gedacht haben? Die Zeichen sind keine Runen,
sondern formal am einfachsted sondern formal ame einfachsten als lagorurnos zu erklitren, wobei die Runen, die
das Geschlecht angeben, noch dary das Geschlecht angeben, noch dazu Wenderuen sind. Was hahal bedeudet,
weisz ich nicht. Jedenfalls sind es keine ' Heal Weisz ich nicht, Jedenfalls sind es keine ' Hagelrunen ', schon ihrer Form
nach nicht, und deren Name heiszt zudem (z) E. G. GRAFF, Sprachcchatz $\mathbf{~ V ~}$
shows (1). Consequently SG, B and $\operatorname{Tr}$ here retain the original reading. The explanation proposed by S is only a half-hearted attempt to justify the name.
(f) A fourth system indicates the group and the place of the rune by dots placed in horizontal lines. Either those showing the group are on the upper line, and those showing the place on the lower line, or vice versa. From the OHG. word for ' dot', stupf or stopf, this device is called stopfruna (stofruna, stophruna) (2).
(g) The fifth device does not seem to have been used in writing. Both the name clophruna, clofruna, from the OHG. verb klopfon ' to knock, to tap, to rap', and the word pulus(s) in the text show that it must have been a sort of cryptocheironomy (3). It seems to have been something like a Morse code, but the text is rather obscure at this point. The first four paragraphs distinguish versus, i. e. group, section, and littera, i.e. rune. A parallel system of tapping would probably require two different tones or sounds, one for the groups and one for the runes. One does not see very well how this may have been done in practice, and even so the mention of personae remains
(1) After fig. 53 b in W. BomanN, Bäuerliches Hawswesen und Tagewerk im alten Niedersachsen. Weimar, 1927; cf. also figs. 45, 47, 49-52, 54, 55, and : P. De Kerskr, Uit den Inventaris van het Folklore-Museum te Gent. De Hangel. Oostvlaarnsche Zanten 17 (1942), 140-145.
(2) E. G. Grasf, Sprachschatz VI, 659 s. v. stuph. The reading soofruna "Als ziemlich sicher darf man es ferner bezeichnen, dass die in den altdeut"Als ziemlich sicher darf man es ferner bezeichnen, dass die in den altdeut-
schen Handschriften aufgezeichriete Geheimschrift eine nofdische (nicht schen Handschriften aufgezeichniete Geheimschrift eine nord is che (nicht
eine angelsăchsische) gewesen ist. Hier für sprechen die folgenden Gründe : eine angelsachsische) gewesen ist. Hier fer sprechen die folgenden Grunde : F . $\mathrm{Geheimschrift} ,\mathrm{welche} \mathrm{aus} \mathrm{runden} \mathrm{Punkten} \mathrm{gebildet} \mathrm{ist}$,heisst in der St. Gallener Handschrift soafrura. Diesen Namen muss man wohl mit M. Olsen aus altn. soppr 'Ball' (dem kein angelsächsisches Wort derselben Bedeutung lautlich entspricht) erklären..." But soofruna is misreading going back to Hatreaker's edition.
(3) R. A. S. Macalistra, Secret Languages, 37.

On klopfon see W. Wissmans, Nomina posterbalia in den altgermanischen Sprachen. Göttingen, 1932 (Ergănzungsheft z. Z. f. vgl. Sprachf. 11), 175, 183. 193. Cf. also the klappninir in Appendix II.
un explained. Fortunately one example of clopfruna, with that name added, has come down to us, paradoxical as this may seem. By definition a cryptocheironomic system cannot be ' written', but we have only to think of the way in which a Morse message may be represented by a series of stops and dashes, to understand how clopfruna could be represented in writing. The one example of clopfruna that has been preserved is a signature of Ekkehart IV of St. Gall in St. Gall MS. 176 (cf. Appendix I). But this instance has nothing in common with runes: it is based on the Latin alphabet. Each letter receives a number according to its place in the alphabet, and these numbers are then indicated by one, two, three, etc. dots: $a=1=$, $\mathrm{b}=2=\ldots, \mathrm{c}=3=\ldots$, etc. Ekkehart himself calls this device chlophruna. The formula distinctis personis et litteris may probably be explained as follows : this sort of signalling could be used during the hours of silence imposed by the monastic rule; first the name of the person for whom the message was meant was signalled, after that the message itself. If this is the right interpretation of the last paragraph in B and SG, the name clopfruna is not parallel with isruna, etc., as this device has nothing to do with runes. The other examples of the use of clopfruna are also briefly discussed in Appendix I to this chapter.
From Iceland we have some evidence that a similar device, klapprinir, was practised on the basis of the Norse fupark: But the text shows that this fubark is not the shorter sixteen-rune type, but one with new 'dotted, runes added; it even contains a $p$ which had been abandoned in the North before the end of the eighth century. Since the treatise also betrays some knowledge of the notae Caesaris and the notae sancti Bonifatii, it is not very likely that these klapprinir go back directly to ON. cryptology; it rather looks as if they were a late adaptation of the Continental clopfruna. Further details in Appendix II. There is of course the name clopfruna, the second element of which seems to point to a runic origin. But
in OHG. the word runa glosses Lat. susurrio, mysteria ( x ), and consequently it is no decisive argument in favour of a runic origin. The name may of course have been created on the model of isruna, etc., but this does not affect the interpretation of the device.

The names of the first two devices may have been brought over from England. Those of the last three were invented on the Continent. Stof- and clof- in SG (the former also in Tr ) are more extreme Alemannic forms as against stophand cloph- in B (and stroph- in S). At any rate the names of the last two devices point definitely to High German territory. This does not altogether agree with the conclusions founded on the rune-names. The prehistory of the isruna tract seems to be a complex one. It rather looks as if the tract had not come from England in the form we know; on the contrary, there is a possibility that it was composed on the Continent. A further analysis of its background will show how this may have happened.
Before we study that background, one point remains to be examined : the relationship of the five versions. Occasional references have been made to this problem before. We saw that B and SG are closely related, but that neither can be the exemplar of the other. There may well be intermediate links between each of them and their common ancestor (Xa); the clopfruna may have been an addition to the latter not found in the archetype ( X ). U and Tr have in common the example coruus instead of corui and also misreadings for the name of the $c e$-rune ( U eos, Tr cos), which may point to a common prototype. Tr was copied from a poor exemplar but has a ' corrected ' text, whilst U shows traces of influence from a De inventione alphabet. A similar influence may be detected in S (the $x$-rune). The latter also shares hagalruna with U , and consequently they may be derived from the same ancestor.

[^5] chiv ${ }_{178}$ (1941), 1-6 (not convincing)

On the other hand $S$ has a completely recast edition. $S$ itself can only be a copy of that new version. Thus we obtain the following stemma.


Xa may perhaps be claimed for St. Gall. SG was written in a centre with insular influence, B probably in St. Gall itself. There the clopfruna tradition lived on as late as Ekkehart IV's days, cf. Appendix I. Xb may rather be claimed for the Rhine area, and it is not impossible that Xc also originated there. As to the way in which the tract was disseminated B may contain some information, see p. 154 f .

## Runic Cryptography.

The problem of the origin of these cryptographic systems may be approached from two angles :
(a) from the runic evidence itself, i. e. especially from the examples found in the inscriptions;
(b) from related cryptic systems. There is one form of secret writing to which we shall have to pay attention in the first place : the Old Irish ogham. This bears in fact so many similarities to runic cryptography, that some scholars
believe the two may have a common origin, or even proceed one from the other
Before we examine these two fields, however, a few words must be said about the ON. manuscript evidence. In Iceland runic cryptography seems to have developed numerous new devices, as is shown by the copious list in Liljegren's RunLära (1). Liljegren had his material from late Icelandic manuscripts; part of it may go back to the ON. period, but much is no doubt of later invention. On the whole this material appears so sophisticated, that it is safer to rely only on the epigraphical evidence. Cf. Appendix II.

## The Epigraphical Evidence.

In runic inscriptions we find various types of cryptography: (2)
(a) Runes may be left out, words may be shortened, contracted. As a matter of fact, it is usually quite hard to decide whether a given inscription presents this type of cryptography, or simply reflects the engraver's ignorance, clumsiness or carelessness.
(b) The order of the runes in a word or formula may be changed. Instead of the word (or formula ?) alu, which seems to mean 'protection', one also finds lua or lau. The remark on the first type applies of course also to this device.
(c) The inscription may be written backwards, entirely or in part.
(d) Special rune-like signs may be substituted for certain runes, e. g. for the runes indicating vowels on one panel of the Franks casket.
(e) Runes may be substituted for the runes actually meant, according to a key known only to the prospective reader.
(1) J. Llljberen, Rum-Lära, 53 f.
(2) O. von Friesen, Runorna, 157 f.;
H. Arntz, Handbuch'; 272 ff.; L. Jacobsen-E. Moltke, Runeindshnifter (Text), 847 f .

Each rune may e.g. be indicated by that immediately preceding or following in the fupark.
(f) In Sweden we find a curious instance where runes of the old fupark (or of the English fuporc) are carved instead of those of the new fupąrk (the Rök inscription, cf. infra).
(g) The most important type, both numerically and for our subject, is based upon the division of the fupark into groups of runes.
It is hardly possible to decide when this last type of cryptography originated. The possibility of such cryptography existed as soon as the fupark had been divided into groups of runes. Our earliest evidence does not seem to reach farther back than the sixth century : the fuparks on the bracteates of Grumpan and of Vadstena are divided into three sections of eight runes (1). There are a few symbols in older inscriptions which may perhaps be interpreted as early instances of the hahalruna :
(I) on several arrows found at Nydam (S. Jutland, ca. 400) we find a symbol which may be read $x / x=f$ or $t$. On one, $1 / 2$ seems to be carved (2).
(2) On the Kylver stone (Gotland, early fifth century) : a vertical stem with six downstrokes to the left and seven or eight to the right (3).
(1) See e. g. W. Krauss, Runeninschriften, figs. 5-7.
(2) L. Jacobsen-E. Moltke, Runeindskrifter (Text), 37 f. and Atlas, nos. 47, 49, 5x; no. 46 may perhaps be read $x / 2$. The authors consider these runes ' simply as magical symbols, whilst W. Krausse, Runeninschniften, 448 f. explains no. 51 as an apotropaeic symbol, which later on was connected with he whe rune; no. 46 he explains as a ligature al, a solution already proposed (3) Muct.
(3) Much depends on the interpretations implicated by retouched photo-
graphs. That of H. Anstz Runenturder graphs. That of H. Auntz, Runenkunde ${ }^{1}$, PI. V has six downstrokes to the left side and eight to the right; moreover it seems to indicate a deliberate
grouping of the lateral strokes : 4,6,7,8 to the right. According to E . Molter, left correspond to 1,3 , seven strokes to the right (Arkiv 56 (1941-1042) ios) Wowever, there are only inschriften, 431 f. and H. Arntz, Handbuch ${ }^{1}$, 142, propose to interpret the character as a multiple $t$-rune, but then the difference in the to interpret the on both sides of the shaft remains a difficulty.
(3) the inscription on bracteate no. 61 (Zealand no. $2=$ Stephens no. 57; sixth century) ends in $3 / 3=\mathbf{p}$ or $\mathbf{e}$ ? ( 1 )
(4) the wooden 'sword' of Arum (Frisia; 550-650) : $2 / 4=$ j? (2)
(5) the Körlin ring (Pomerania) : $2 / \mathrm{x}$ or $\mathrm{I} / 2=\mathrm{n}, \mathrm{u}$ or b . (3). For most of these inscriptions other interpretations have been offered (cf. the footnotes), and perhaps more plausible ones. On the whole the instance from the Arum inscription is the most convincing; but it seems a narrow basis on which to found far-reaching conclusions. The possibility of devices such as are described in the isruna tract having existed before ca. 800 A. D. should not be excluded; but how far they may go back we cannot ascertain.

## Hackness (Yorkshire) (4).

The face of the stone which interests us bears an inscription in three parts (a) two lines of runes, (b) three and a half lines of hahalruna, and (c) the Latin word ORA (in Roman).
The first two lines have been read + embdwoe/gnwguice. Thus far this part of the inscription has not been explained (5).
(I) L. Jacossen-E. Moutke, Runeindskrifter (Text), 535 f ; ; Atlas, 419, Br. 6r. The symbol has been interpreted as a threefold), $t$-rune, cf. W. Krausk,
Revenincthriften, 477 f . On bracteates nos. 21 and 22 (Overhorbbek, N. JutRuneninschriften, 477 f. On bracteates nos. 21 and 22 (Overhornbrek, N. Jutland, nos. 2 and 3: L. JAcobsen-E. Moltike, o. c., (Text) 507 ff., Atlas, 414) we also find combinations which could be read $x / 2$ or $2 / 2$; but these inscriptions are partly made up of pseudo-runes, and therefore cannot be considered as vidence.
(2) H. Arntz - H. Zkiss, Runendenkmäler, 106 f.; P. C. J. A. Boklbs Friesland, 347 ff. T. von Grienberger, Neue Beitrage, 299, was the first to compare this symbol with the St. Gall hahalrura. When ArNTz identifies $2 / 4$ with 3 , this must be a slip; $2 / 4=j$.
(3) W. Krausb, Runeninschriften, 446 f . and fig. $\mathbf{1 8}$. The rest of the inscrip(4) reads ula or alu, the well-known apotropaeic formula.
(4) G. B. Brown, Arts VI, i, 52 ff. (esp. 67 ff. and PI. XIX, 1).
G. Stephens, Monuments I, 467 f. (photograph).
(5) R. A. S. Macalister has proposed several explanations: it might be (a) a substitutiary cypher; (b) a transpositional cypher; (c) a list of names or other words, written straightforwardly, but abbreviated so as to be unintelligible to those to whom the namas are unknown; (d) a mnemonic clue, explaining to the initiated the principle on which the following inscription in tree-runes is constructed. As a matter of fact, 1 know of no plausible interpretation of these runes" (in : G. B. Brown, Arts VI, i, 68).

The cryptic runes have been called 'twig.' or 'tree-runes ' through a mistaken identification with the type called keistrinar in Icelandic. But in the kvistrinar the lateral strokes go

upwards, whilst here they slope down, precisely as in the hahalruna of the manuscripts. Unfortunately the inscription has suffered much, and for several symbols the number of side-strokes cannot be made out (I have placed a dot where the number of side-strokes could not be counted by the scholars who examined the inscription) ( I )

$$
\begin{array}{llllllllll}
4 / 8 & 2 / 4 & 3 / 4 & 4 / 1 & 3 / . & . / & 3 / 3 & 1 . & .1 & . / . \\
4 / 2 & 2 / 4 & 3 / 8 & 1 / 1 & 3 / 5 & 3 / 1 & 1 / 1 & / . & . / & . / . \\
3 / 2 & 1 / 1 & / . & . / . & 4 / 6 & 3 / 8 & 3 / 3 & 3 / 5 & 4 / 4 & . / . \\
1 / 1 & 1 / 1 & 2 / 3 & . / & 3 / 8 & & & & &
\end{array}
$$

But even if too little remains legible to allow of a plausible reading, some information may be derived from this part of the inscription. As Macalister pointed out, it is founded on a fuporc divided into four sections. I believe we can even go further. Of the first group or section, only one rune occurs for sure : the first; of the second only the third and fourth
(x) "Of the thirty-five letters, ten are entirely effaced, and others are mutilated so that the number of side-strokes - a vital question - is uncertain. For these reasons, and for reasons stated above, it is probably quite impossible to decypher the inscription " (R. A. S. Macalistisn in : G. B. Brown, Arts VI, i, 68 f .).
runes；of the remaining two sections five or six different runes， including $3 / 8$ and $4 / 8$ ．From this we may conclude that the fuporc consisted of more than twenty－four runes：probably twenty－eight or more．Since only one rune of the＇first＇ section is used，it follows that the sections were probably numbered in reverse order，the one with the additional runes coming first．The high frequency of $1 / 1$（ 5 out of 23 legible characters）agrees well with the fact that this symbol stands for a vowel（a）．The Norse inscriptions also favour the re－ versed numbering of the sections，as we shall see（ r ）．

The Hackness inscription could be the foundation of the history of the isruna devices，if its status and meaning were better established．For the same stone also bears an inscription carved in a secret ogham，which has not yet been deciphered． Unfortunately the date of the whole is uncertain ：Collingwood would place it towards the end of the ninth century，but Brown has apparently good reasons for believing it to be a century older．If so，we may assume that this inscription with hahalruna is as old as the earliest appearance of these secret runes in manuscripts，and probably older．Brown suggests that there is a connexion between the cryptic runes and the secret oghams， and even that the former owe their origin to Irish influence ：
＂．．．it would be much more probable，indeed quite a matter of certainty，that the pseudo－Oghams and the twig－runes would be devised and executed by the inmates， among whom Irish monks or nuns would no doubt be found＂（2）．
All Norse inscriptions with comparable cryptic runes are founded on the later sixteen－rune fubąk．Therefore the system as used there cannot be older than the second half of
（x）The Hackness inscription，however，hardly allows of an interpretation； transcribed on the basis of the above assumptions，it reads：

$$
\begin{array}{lllllllllll}
\mathbf{w} & \mathbf{m} & \mathbf{j} & \mathbf{f} & \cdot & & \mathbf{i} & \cdot & \cdot & \cdot \\
\mathbf{u} & \mathbf{m} & \mathbf{s} & \mathbf{a} & \mathbf{3} & \mathbf{h} & \mathbf{a} & \cdot & \cdot & \cdot \\
\mathbf{n} & \mathbf{a} & \cdot & \cdot & \mathbf{c} & \mathbf{s} & \mathbf{i} & \mathbf{3} & \mathbf{o} & \cdot \\
\mathbf{a} & \mathbf{a} & \mathbf{e} & . & \mathbf{s} & & & & &
\end{array}
$$

（2）G．B．Brown，Arts VI，i，72；cf．also R．A．S．Macalister，Secret Lan－ guages， 6 ．
the eighth century．With one or two exceptions，the order of the æittir or sections has been inverted ：that beginning with $t$ comes first，then that with $h$ ，and last of all that with $f$ ．The following survey does not claim to be complete．The inscrip－ tions are transcribed in fraction－like formulae；the devices actually used are shown in fig． 18.

## 




Kngigerosak そうそ そ






Secithedeuat inorse Cryptogicur $1_{43}$ －in leunir laicriptions

Rök (Östergötland) ( r )
This, one of the most interesting and puzzling of all runic inscriptions, offers a regular catalogue of cryptic systems.
(a) [.] $2 / 43 / 63 / 21 / 33 / 23 / 6 ~ 1 / 32 / 32 / 22 / 3=$ [s]akumukmini.
(b) oossoosss $=2 / 22 / 3=\mathbf{n i}$.
(c) $3 / 33 / 2=\mathbf{p u} ; 3 / 5=\mathbf{r}$.
(d) $3 / 53 / 22 / 22 / 31 / 23 / 4 \mathbf{~} R=$ runimopR
(e) $2 / 43 / 22 / 33 / 22 / 32 / 5=$ auiuis.

As this inscription is fairly early (ca. 850), it is an important element for the solution of the isruna problem. All similar ON. inscriptions are of a later date :
Kingigtórsoak (Greenland) (2).

$$
2 / 31 / .=1[\cdot]
$$

Lom VII (Gudbrandsdal) (3).
[2] $/ 4=\mathbf{a}$.
Lunda Rectory (Södermanland) (4)
$3 / 32 / 32 / 4 \mathbf{k} 1 / 2$ [should be $2 / 2$ ] $\mathbf{a}=$ piakna .
Mxlifell (Iceland) (5).

$$
1 / 13 / 41 / 32 / 42 / 5=\text { tomas. }
$$

Maeshowe VIII (Orkney) (6).

$$
2 / 43 / 51 / 42 / 33 / 63 / 5=\text { xrlikr. }
$$

Maeshowe XVIII.
3/3 2/3 $2 / 52 / 43 / 53 / 53 / 22 / 22 / 43 / 5=$ pisar runar.
$1 / 3 \mathbf{a p r}=\mathbf{m a p r}$.
(1) S. Bueck Tolkningen; Om Runeindskrifterne paak Rok-Stenen; Der Rumenstein von Rök.
F. Lapklar, Om Röhstenen; Bidrag;
E. Bratb, Ostergotlands runinskrifter, 231 ff.;
O. von Fribskn, Rökrtenem.
(a) M. OLsen, Kingigtorsoak-stenen; Sigtuna-amuletten, 23
(3) M. OISEN, En futhark-innskrift i Lom kirke. M.o.M. 1943, 88-96; Norges nskenfter med de yngre runer I, 83 f., no. 36 .

$$
\begin{aligned}
& \text { (4) S. B. F. JANson, Sormiädska runstensfynd. } \\
& \text { (5) A. BeEstro, Islands Runeindskifter, } 151 \text {. }
\end{aligned}
$$

$$
\begin{aligned}
& \text { (5) A. Bexsigo, Islands Runeindskrifter, } 151 . \\
& \text { (6) B. Dickins, The Rumic Inscriptions of Mo }
\end{aligned}
$$

Orkney Antiquarian Society 8 (1929-1930), 29. M. OLsks, Rûnar er ristu rýnastir menn, 177 fl O. von Frieskn, Runorna, 102 (M. Olsen).

Norum (Bohuslän) (r).
$3 / 2=m$. In this instance the original order of the sections has been retained.
Rotbrunna (Uppland) (2).

$$
2 / 4 \quad 2 / 3 \quad 3 / 5 \quad 2 / 3 \quad 3 / 63 / 5=\text { airikr. }
$$

Rodven (Romsdal) (3).
© st $2 / 4$ 2/3 $2 / 2$ : $3 / 5$ 2/4i $2 / 5 \quad 1 / 1=$ østain : raist. $V a l s t a$ (Södermanland) (4).

$$
3 / 52 / 43 / 21 / 5 \cdot 3 / 22 / 43 / 51 / 2=\text { rauR . uarb. }
$$

For the late Icelandic manuscript evidence, of. Appendix II.
Of the illustrations given in figs. 17 and 18, Rök (a) and (d), Lom, Lunda, Maeshowe VIII and XVIII, Mælifell, Rotbrunna, Radven and Valsta remind one of the devices described in the isruna tract: Rotbrunna of the isruna, the others of the hahalruna. But not one of these instances, except perhaps Lunda, are identical with our manuscript cryptic devices. S. Bugge and M. Olsen interpret the short strokes in the Rotbrunna example as s-runes (of the Halsinge type); M. Olsen supposes that similar short strokes which he reconstructs from the Sigtuna amulet inscription were $R$-runes (name $i R$ ) (5). This of course destroys the parallelism with the isruna completely, for then we have to compare Rotbrunna with Rök (b).
(1) O. von Frissen, Runorna, 158 .
(2) O. von Fribssn, Upplands runstenar, 46; Runorna, 158
M. OLSEN, Sigtuna-amuletten, 20.
(3) M. Olskn, Runer i Redven. Romsdalsmuseets årbok, 1938-194r, iff. (1) E Brate - E W
(4) E. Brate E. Wessen, Sodermanlands puninskrifter, 36 no. 47 and pl. 29, read rauR firt or rauR fart or rauR uart. Cf. O. von Frissen,

Barna, 158; M. Olasn, Sigtuna-amuletten, 21
S. Bugge, Der Runenstein von Robk,
(5) M. Olakn, Sigtuna-amuletten, zo.

To the above list the Soderköping inscription might perhaps be added, but the interpretation of the portion which interests us here is not sure : $\mathbf{k k}$. kiiii kkk [.?], cf. A. Nordên, Söderkopingsstenen. En nyfumnen runsten med magisk syfte frơn " overgangstiden". Fornvännen 1937, 129 ff .; NorDen offers a different interpretation.
M. Olsan, Sigtuma-amuletten, also connects part of the inscription on a copper plate found at Sigtuna with the irnura tradition, cf. p. 152

## The Ogham ( x ).

On the whole few cryptographical devices used in classical Antiquity seem to be comparable with the isruna system. Polybius's torch signal system is very similar : the (Greek) alphabet is divided into five groups of five letters each; the number of the group to which a given letter belongs, and the place of that letter in its group are indicated by one to five torches; e. g. $2 / 5=\mathrm{K}$ (2). But who will undertake to prove that there is a connexion between Polybius's signals and the isruna?
There is, however, a closer parallel both to the isruna and to Polybius's torch signals in the Western world. As a matter of fact, the Old Irish alphabet or ogham shows such a striking resemblance with the fupark, that some scholars have earnestly considered the possibility of both being derived from a common ancestor (e.g. Marstrander). H. Arntz has even tried to derive the ogham from the sort of cryptic runes described in the isruna tract. These attempts have met with little approval : although the two systems are alike in the main lines, there are such important differences as cannot be explained if we accept a common origin or dependence of one on the other (3). Cf. infra.
The ogham alphabet seems to have consisted originally of four groups (aicme) of five letters each. In epigraphical usage the script followed a line carved on the face of a stone, or else represented by a more or less straight edge of the stone. The
(1) H. Arntz, Das Ogom, corrected by
(1) H. Arntz, Das Ogom, col
R. Thurneysen, Zum Ogom.
R. Thurneysen, Ium, Ogom.
R. A. S. Macalistr, Secret Languages, iff.
R. A. S. MACAlisterk, , ecret Languager, I If. Etudes celtiques 4 (1941), 83-116.

Cf. Arntz's bibliography in his Handbuch ${ }^{1}$, 277-279.
(2) W. SOss, Ueber antike Geheimschreibemethoden, 148 f.
(2) W. Arstr, Das Ogom, 394 f.; Handbuch', 294 ff.
R. Thurneysen, Zum Ogom, 199 ff.

In connexion with Arntz's theory cf. also
W. Kklukr, Die Entstehung des Ogom. Beiträge 62 (1938), 121 ff.
H. JAENICKEN, Zum Ogom. Runenberichte i (1939-1942), 112 ff .

For Marstrander's hypothesis see especially his Om runene, 125 ff .
letters of the first group consisted of one to five vertical notches below (or horizontal notches to the right of) the stem-line; those of the second were made by one to five notches above (or to the left of) the stem-line; the next five letters were similarly indicated by one to five strokes transecting the stem-line obliquely (or cut at an angle on the two faces of the stone which met at the edge used as a stem-line); the last five were made in the same way, but here the strokes were at right angles with the stem-line. Sometimes dots on the stem-line were substituted for the strokes of this last group. The letters formed a unique and hitherto unexplained sequence. Later a fifth, obviously secondary group of symbols was added to render diphthongs. The whole looks as follows :

The inscriptions in this script (mostly funeral) are usually dated from the fourth to the seventh century A.D. (I). From later manuscript sources we know the names of the letters. Just like the rune-names, these names were actually words used in the language, but they were chosen from one semantic group : apparently they were all names of trees (2). Each
(I) R. A. S. Macauster, The Archaeology of Ireland. London (1949), 328 f. Ogham inscriptions are occasionally found in manuscripts, e. g. in St. Gall MS. 904 : C. Nicra, Reliquie celtiche. I. 11 manoseritto di S. Gallo. Firenze, etc. $\mathbf{~ 8 7 7 2 ; ~ W . ~ M . ~ L i n d s a y , ~ E a r l y ~ I r i s h ~ M i n u s c u l e ~ S c r i p t , ~} 46$. On the regular treatise on the ogham cf. infra.
(2) G. CALDER, Auraicept, 275 f. : "Secundurn alios it is from the trees of the forest that names were given to the Ogham letters metaphorically. Moreover beithe, b , is from the birch of the forest for the first letter on the path of the Ogham alphabet. Luis, 1 , that is, elm in the forests. Fern, $f$, that is, alder in the forest. Sail, $\mathbf{s}$, of the Ogham, that is, willow, again, in the forest. Nin, n, of the Ogham, to wit, maw of spear, or nettles in the woods. Uath, h, of the Ogham, that is, test-tree or whitethom, on account of its thorniness. Dur, d, of the Ogham is oak, again, in the forest. Tinne, it, of the Ogham, in the forest Quert, a of the Oghm is holly in the forest or पuick,
group was known by the name of its first letter, e. g. aicme bethi ' group, tribe of $b$ ' (cf, in later Norse runic lore Freys att 'group, family of $f$ '?).
The ogham is built upon the same fundamental idea as the isruna: each letter may be written as a fraction, the numerator indicating the group to which it belongs, the denominator its place in the group. But whereas runic cryptography writes both the numerator and the denominator, in ogham cryptography the numerator is shown only by the varying shape of the denominator. It looks as if the oghamists had not been able to feel the numerator as a figure in the same way as the denominator. They seem to have been so spell-bound by their fundamental system (which used a different type of notches for each group) that they never reached the degree of abstraction exemplified by the isruna system. This does not mean that they were unable to invent cryptograms quite similar to those found in Norse inscriptions, and some even more complicated. Therefore the cryptic systems derived from the ogham must be briefly examined.

Our main source on ogham cryptography is a treatise on the invention and peculiarities of the Old Irish alphabet, edited by G. Calder (1). In his analysis of the part devoted to cryptography, R. A.S. Macalister distinguishes the following forms of cipher : I. Anagrams; II. Confusion by means of insertions; 1II. Tampering with the form of the stem-line or of the letters; IV. Substitutions (2). Although only devices classified under IV are directly comparable to the isruna type, some in the or aspen. Muin, vine, $m$, to wit, mead [from it]. Gort, cornfield, $\mathbf{g}$, to wit, fir. Getal, ng, to wit, broom. Straif, str, willowbrake in the forest. Onn, o, to wit, furze or ash. Ur, u, to wit, thorn. Edad, e, to wit, yew. Ida, i, to wit, service tree. Ebod, ea, to wit, elecampane. Oir, oi, to wit, spindle tree. Villeann,
ui, to wit ivy. Pin, io, of the Ogham, pine, again, in the forest. Hence ui, to wit, ivy. Pin, io, of the Ogham, pine, again, in the forest. Hence are named caera pinne, gooseberries; ifin, again secundum alios is the name of that letter. Emancoll, witch hazel, ae, again, to wit, $c$ doubled according to fact or according to form, to wit, $\mathbf{c}$ across $\mathbf{c}$ in its form ".
H. Mkrongx, Early Irish Letter-Names. Speculum 24 (1949), 19-43. (1) G. Calder, Auraicept, 272 ff., from the Book of Ballymote. The text also occurs, with slight variations, in British Museum MS. Addit. ${ }^{4783}$; cct,
R. Thurngysen, Zum Ogom, 190 and R. Derourz, Ogam, 'Egyptian ', African' and 'Gothic ' Alphabets.
(z) R. A. S. Macalister, Secret Languages, 38 ff., esp. 46 ff .

first three classes show a close resemblance to runic devices. Calder's no. 13 (ebadach Ilaind 'ebad-fashioned ogham of Ilann') reminds one of the X-shaped secret runes on the Rök stone, no. 89 of the 'twig-runes' of Maeshowe. In no. 12 ' the $m$-group is formed of scores looking like $C$, and the $a$-group. of scores like D, rather like in the Hackness ogham. No. 48 uses a somewhat similar device, as its name coll ar guta' $c$ for the vowels ' implies : the consonants are written as in the normal alphabet, but for the vowels ogham $c, c c$, etc. has been substituted. A cryptic alphabet in Oxford MS. St. John's College ${ }_{1} 7$ in the same way substitutes C, CC, etc. for the vowels, but keeps the consonants (cf. p. 31) (i). The ogam ar abairiar cethrur 'ogham called "four-man"' (no. 34) uses the letters $d t l f$ to represent the four groups; each letter is written as many times as the intended character has scores, e. g. $d d d d=s$.
( () R. A. S. Macaustri, Secret Languages, 52, adds the following comment : "A cypher of this kind, in ordinary Irish letters, was a favourite plaything among the scribes of eighteenth-century MSS. I have a fragment of a MS.
 represented by $\mathrm{C}^{\prime}$ s, just as in the Ballymote alphabet : the diphthongs are a represented by C 's in warious positions... "

The 'ogham of Bricriu' (no. 14) indicates the place of the letter in the alphabet by a number of strokes or dots, but it differs from the isruna and stopfruna in that it abandons the distinction in aicme's or groups : the sixth letter is rendered by six strokes, etc. ( I ). No secret ogham expresses the numerators in another way than by different shapes of the denominators; here is a fundamental difference with runic cryptography

These are the data on the basis of which we should examine the isruna devices. There can be no doubt that there is a connexion between the OE. and the ON. material. The ties between the Gmc. material and the ogham are of a more imponderable nature. S. Bugge decided that the 'group-numberscript ' was originally founded on the twenty-four rune fupark. He ascribed the Hackness inscription to a Swedish carver, as he believed it to show traces of Norse influence (2). The principle of the 'group-number-script' would have been invented by a Scandinavian. Yet he believed that the whole system rested ultimately on Irish models, i. e. on the ogham : at Hackness Irish and English culture met (3). The Rök inscription in turn shows English influence, and this explains the presence of the cryptic systems. Bugge did not go so far, however, as to suppose that the carver of Rök had been in England. As to the isruna tract, it would go back to an ON. model because (4) :
(a) The clofruna of the St. Gall manuscript correspond to Liljegren's klapprúnir.
(b) The St. Gall term soofruna can only be explained by connecting it with ON. soppr 'ball'; there is no corres(1) Cf. on the ogam Bricrend R. A. S. Macaustrer, Secret Languages, 56 and H. Mrroney, A Druidic Liturgy in Ogam Bricrend? M.L.N. 62, (1947), 187-189.
(2) S. Bugge, Der Runenstein von Rök, r94 ff. : emundro / onasboa "Emund hat Ruhe (ruht) in Esbo": "Ein schwedischer Mann Emund ist in Essbo (Eseby) gestorben und begraben worden. Eine mit thm verwandte Frau (wohl seine Tochter oder seine Witwe) hat in Hackness zu seinem Andenken die gen
(3) S. BucGe, Der Runnenstein von Rok, 199 f.
(4) S. Buege, Der Runenstein von Rok, 198 f.
ponding OE. word. The $f$ in clof- and soof- as opposed to klapp- and sopp- is due to the scribe's Alemannic dialect. (c) The St. Gall version has o as the eighth rune of the third group. But in the OE. fuporc the OGmc. o had the value $c$ or $e$, whilst $o$ was indicated by the new o, i. e. a form derived from the old $a$-rune.
None of these arguments is convincing. The klapprunir mentioned in Icelandic manuscripts are found in the neighbourhood of notae sancti Bonifatii and other devices imported from England or from the Continent (cf. Appendix II). Bugge's soofruna is not in the manuscript : there we find stofruna, a good OHG. compound. Finally, the value of rune no. 24 cannot be construed as an argument against an English origin. A German who found repel or epel in his prototype could very well substitute his native odil for it; moreover one should not forget that early English manuscripts have such spellings as oidil or oedil (1).

We saw in the Introduction that C. J. S. Marstrander assumed runes and ogham to be derived from a common ancestor (p. xxix). In his theory on the origin of the ogham H. Arntz chooses a different course. He derives the ogham from the Gmc. hahalruna (2). The system exemplified in the Hackness, Rök, etc. inscriptions would be much older, and the ogham would owe its existence to relations between Ireland and the Germanic world in the third century A.D. It would take too long to examine how Arntz derives each single ogham letter from a cryptic rune, the more so as R. Thurneysen has shown that Arntz's hypothesis is quite unsatisfactory from the chronological and from the formal point of view (3). G. B. Brown and R.A.S. Macalister accept Irish influence at least for the Hackness inscription (4).
M. Olsen mainly examined the Germanic material (5). He fundamentally agrees with Bugge : the isruna tract is no more
(1) H. Strom, Old English Personal Names, 30.
(2) H. Arntt, Das Ogom, 396 ff.
4) G. B. Biows Art VI $i$, 72, R f.

than an artificial elaboration based on an ON. model. In his paper on the Sigtuna amulet (ca. 1050) he interprets the section iii isiR pisisiR auk is as concealing isruna : is would be the name of the $i$-rune (1), iR that of the $R$-rune ( 1 in the Hälsinge fupark) ( 1 ). Thus he obtains a sequence

IIIII $p \|_{1}$ ' and ' $\mid$
which he reads lpbt or opuff. The latter, reversed, gives fupo, i. e. the first four runes of the fubark. Olsen belièves that the numbers of runes in various parts of the inscription have a magical meaning. Similarly he points out that corui, the example in the St. Gall manuscript, has a total of twenty-four long and eight short strokes when written in isruna. But corui would only be a substitute for ON. hrafn, runic hrabn; written in isruna, hrabn would have a total of twenty-four strokes, which number may again play a part in magic (2). Olsen has even tried to reconstruct the runic inscriptions of Grimhild (Gudrinarkvida II, 22) and Gudrun (Atlamál $4-13$ ) on the basis of the Eddic texts, assuming that they were conceived as cryptic inscriptions of the isruna type. F. Genzmer attempted the same for a stanza in the Egilssaga (3). These interpretations will easily be challenged (4); Olsen's general view of the isruna tract does not stand close inspection either.

There is nothing in the isruna tract which points to an ON model, except perhaps the $n$-rune of the Brussels version. But what value has this one variant against the combined evidence of the other four texts? One should not forget that the runes of the Brussels version are on the whole drawn rather carelessly. The runes are English, the rune-names are partly English, partly German, and so are the names of the cryptic devices.

As a matter of fact two aspects of the problem should be kept apart :
(1) M. Ouske, Sigtuna-amuletten, 16 ff .
(2) M. Ouske, Sigtuna-amuletten, 20 f.; Grimhilds og Gudruns runeinnshifter, 23 (and note).
(3) F. GRinzmer, Die Geheimrunen der Egilssaga. Arkiv 67 (1952), 39-47. (4) A. Bexsizo, Malnuer, 87 ff.
(a) what is the relationship between the OE. and the ON. material ?
(b) is there any relationship between runic and ogham cryptography ?
(a) The evidence for ON. influence in the Hackness inscription and in the isruna tract, given by Bugge, may safely be rejected. Olsen has only worked on the assumption that such an influence existed, without proving it. The absence of an uncontested example of group-number-script in the Scandinavian area prior to the Rök inscription should not be overlooked. The Rök inscription itself displays a striking amount of learning, not only in the cryptograms quoted before, but also in the use of the older fupark (or the English fuporc) for cryptic purposes. The blundering use of the older runes proves that there is a break in the tradition : the carver substituted old runes for the new ones he was used to as well as he could, with the result that he obtained hypercorrect archaisms ( I ). Therefore some form or other of foreign influence cannot be rejected a priori. Judging only by the dates, this, seems to be the most logical explanation (Hackness ca. 800 (?); isruna tract : ca. 850 or somewhat earlier; Rök ca. 850 ; the other Norse inscriptions are all much younger). On the whole the comparison with the Norse material throws little light on the isruna problem. There is at any rate no clear indication that the devices described in the isruna tract were borrowed from Scandinavia, although there is obviously some relationship between the cryptography based on the English fuporc and that using the Norse fupark: We shall find at least one instance of a borrowing in the opposite direction, cf. Appendix II.
(b) The material with which we are supposed to find an answer to the second question is quite heteroclitic, and hardly allows of a definite answer. But perhaps we can come

[^6] stin von R $\sigma$ k.
closer to a solution if we again divide the question into two subquestions:
(1) was the runic group-number-script borrowed from ogham cryptography?
(2) were some devices borrowed from one system into the other ?
If in the first question we maintain the term 'borrowed', I am in favour of a negative answer, but I have no other argument than this: from the very beginning runic cryptography attains a degree of complication (consequently of perfection) never reached by ogham cryptography (cf. p. 148). If, however, we substitute 'inspired' for 'borrowed', I see no. reason for denying that possibility. But I fear we cannot come to a more definite answer unless new material be found.

In the answer to the second question the possibility of such a borrowing cannot be denied : we find ogham and runes on the Hackness stone, perhaps also in Oxford MS. St. John's College 17 (p. 31). The borrowing may have been both ways : if the 'ogham of Bricriu' may have served as a model for the stopfruna, the kvistrinar may have inspired the inventor of ogham no. 89 in the ogham tract (1). There can be little doubt that Irishmen, who seem often to have had a keen sense for abstruse and cryptic lore, would show great interest in secret runes. Perhaps there is some evidence of their presence in the neighbourhood of our isruna text.
In the Brussels manuscript the isruna tract is followed by other materials for cryptic writing. The most interesting amongst these is no doubt the cryptogram briefly discussed on p. 97 ff. If the Brussels manuscript was written at St. Gall, we have probably an indication of how the cryptogram got there. Under Abbot Grimald (842-872), presumably in 850 , there arrived at St. Gall ... "Marcus, a bishop of the Scots", coming from Rome. "He was accompanied by his sister's son Moengal, later called Marcellus by our brethren after his uncle Marcus. The latter was most learned in divine and human matters... The Bishop remained with his nephew and
(1) G. Calder, Auraicept, 311, 313, and fig. 20 supra.
a few dependents who spoke his own language. After a time the inner school was given to Marcellus with Notker, later called Balbulus, and the other boys who wore the monastic habit; and the outer one to Iso with Salomo and his contemporaries. It is pleasing to remember how much the monastery of St. Gall began to grow under these auspices " (r).

A couple of years before, one of the most famous of all Irish peregrini, Sedulius Scottus, had first appeared on the Continent. Liège seems to have been his favourite resort; there he found benevolent protectors in the bishops Hartgar and Franco. L. Traube has given a fascinating account of the varied activities displayed by Sedulius and his companions (2). On the basis of their works and of marginal notes in a number of manuscripts, he was able to reconstruct an important aspect of the cultural life in the ninth century. Among the names mentioned in this connexion, there is first Sedulius himself, whose name is found in St. Gall MS. 48 (together with that of Dubthach) and in Berne MS. 363 (where both the names Fergus and Dubthach occur). Then there is Fergus, whom we know already from the Bamberg letter (cf. p. 98 f.), and who is also found in St. Gall MS. 904, in the Dresden codex Boernerianus; and in Berne MS. 363; he was a companion of Marcus, as appears from Sedulius's welcome poem to the latter. Dubthach we met as the inventor of the cryptogram in the Brussels and Bamberg manuscripts; he himself wrote Leyden MS. Voss. lat. 67, and is also known from the codex Boernerianus, from St. Gall MS. 48 and from Berne MS. 363. Other scholars belonging to the same circles were Dongus, Comgan or Congan, Beuchel, Blandus, Dermoth, Maelchomber, etc. (3).
(1) J. M. Clabk, The Abbey of St Gall, 33 (translated from Ekkrbart's Casus S. Galli c. 2).
(2) L. Traubig, O Roma Nobilis, 347 ff.;
J. F. Krnney, Sources I, 557 ff.
W. M. Lindsay, Early Irish Minuscule Script, 36 ff.
(3) A donatio Beati abbatis, ecclesiae Honaugiae facta, edited by J. Mabilion,
Annales Ordinis S. Benedicti, T. II (Paris MDCIV) Ego Wellimannus rogatus scripsi \& Motavi diem 699 f., ends :
Ego Wellimannus rogatus scripsi \& notavi diem \& tempus \& locum Haec charta in Maguntia civitate scripta XI. kal. Julias, anno X. regni hanc chartam fieri rogavit. $\dagger$ S. Conigani episcopi, $\dagger$ S Echoch

The connexions between Sedulius's immediate surroundings and the St. Gall group cannot be doubted. Other important centres of the activity of these Scotti seem to have been Cologne (where Sedulius found a patron in Bishop Gụnthar, also mentioned in the Dresden Boernerianus and in St. Gall MS. 904), Milan, and Salzburg, which was probably one of their intermediate stations.
Still in connexion with the Brussels cryptogram, it is important to note that Sedulius wrote a poem on an altar founded by Ruadri, Mermin's son and successor. The name Ruadri is also found in St. Gall MS. 904, which seems to have come from Kildare by way of Liege. The presence of Fergus and his companions at Mermin's court will hardly be a fiction. We may safely suppose that many of the Irish scholars driven from their country by the Viking raids sought and found a first safe refuge in Wales, which was comparatively free from the inroads of the Norsemen, and at times successfully resisted them. Last but not least, it is not impossible that Marcus himself was a Welshman, but had been educated in Ireland (r):

It is rather tempting to connect the isruna tract-in some way or other with the activities of these peregrini. The only instance of runic cryptography of this type known from England is the Hackness inscription, which was found to show traces of Irish influence. There is perhaps one further argument in favour of connecting our fupore with Wales : its $g$-rune is also found in Nemnivus's alphabet, which I propose to examine briefly now.
episcopi. $\dagger$. Signum Suathar epi. $\dagger$ Signum Maucumgib epi. $\dagger$. Signum Canicomrihc epi. $\dagger$. Signum Doilgusso epi. $\dagger$. Signum Erdom nach epi. $\dagger$. Signum Hemeni presbyteri.
Hohenausa, Honau was an ecclesia Scozorum on a small island in the Rhine near Strasbourg. The original of the text printed by Mabillon seems to be lost ; he used a copy of ro79, whilst the original seems to be of 810 (or, according
to E Mownacres, of 786 ). One might feel like to connect Coniganus with Comgan or Congan, Suathar with Suadhar, Maucumgib with Maelchomber, Canicomrihe (an Olrish genitive?) with Caunchobrach, Doilgus perhapswith Dongus. Striking though these parallels may look, the chronological difficulties should not be underrated.
(1) J. M. Cuark, The Abbey of St Gall, 34, following a suggestion of L. Traure, $O$ Roma Nobilis, 37 o .

## Excursion : Nemnivus's alphabet.

On fol. $20^{\mathrm{r}}$ of Oxford MS. Bodl. Auct. F. 4.32 (1) we find the following curious note in a ninth century insular hand :

Nemniuus istas reperit literas uituperante quidam scolastico Saxonici generis quia Brittones non haberent rudimentum; at ipse subito ex machinatione mentis suae formauit eas ut uituperationem et hebitudinem deieceret gentis suae; de figuris et de nominibus dicens:
then comes an alphabet with for each letter its Latin equivalent and its name, first the letters corresponding to Lat. $a-z$, then ten additional letters indicating diphthongs. The same alphabet is also found, with only trifling differences, in Cotton MS. Titus D 18 (cf. p. 338), and, with some divergent forms and without the names, in Oxford MS. St. John's College 17 and in Cotton MS. Galba A 2 (cf. pp. 32, 37).
Nemnivus may have been identical with the historian Nennius, who began his Historia Brittonum with these words:

Ego Nennius, Elvodugi discipulus, aliqua excerpta scribere curavi quae hebitudo gentis Brittanniae deieceret ... (2).
I. Williams remarks : "It is difficult to believe that there were, two Welshmen living in the early years of the ninth century, both equally sensitive to the charge of hebitudo laid against the Britons, one called Nennius and the other Nemnius or Nemniuus" (3). The argument seems rather cogent, but need hardly concern us here, as only the alphabet calls for our attention. One glance at Nemnivus's rudimenta shows that the expression subito ex machinatione mentis suae should be taken cum grano salis : there can be no doubt that all Nemnivus did was to adapt an alphabet of his 'Saxon' enemies, an OE. fuporc. Here follows the alphabet in its two varieties $\left\langle N_{1}=\right.$
(r) G. Hickes, Thesaurus, Grammatica Anglo-Saxonica, 168 (facsimile); Catalogue of Western Mamuscripts II, 1, 243 ff
(2) F. Lot, Nennius et l'Historia Brittonum' (Bibliothèque de l'Ecole des hautes etudes 263). Paris, 1934, 147. Nennius's preface is followed by Versus Nernini [or Nenniuti?] ad Samuelem.
(3) I. Willimas, Notes on Nennius. Bulletin of the Board of Celtic Studies 7 (1935), 38 f .

Bodley MS．F． 4.32 and Cotton MS．Titus D 18；N $\mathrm{N}_{2}=$ Oxford MS．St．John＇s College 17 and Cotton MS．Galba A 2）：


|  | $\begin{aligned} & \overline{3} \\ & \stackrel{\rightharpoonup}{4} \\ & \stackrel{\rightharpoonup}{*} \\ & \stackrel{y}{*} \end{aligned}$ | $\begin{aligned} & \text { ‘⿹\zh26灬力 } \\ & \text { J } \end{aligned}$ |  |  | $\begin{aligned} & \text { 呂 } \\ & \text { 空 } \end{aligned}$ |  |  | $\stackrel{4}{3}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| M 4 | ＊ | $\nabla$ | 4 | $Y$ | 9 | A | Y | Y |
| $M_{2} \Psi$ | $\$$ | 世 | $\chi$ | 1 | H｜ | 8 | 8 | 88 |
| $\infty$ | 8 | 3 | $\vec{J}$ | $\checkmark$ | צ゙ | － | 응 | \％ |

First let us consider the forms of the letters ：
$a$ ：probably derived from a．
$b:$ in $N_{1}$ most like a pointed $b$ ．
$c: \mathbf{p}$ on account of resemblance to Roman $C$ ？
$d$ ：a slightly distorted $\mathbf{p}$ ．
$e:$ in $\mathrm{N}_{2}$ identical with $\propto$ in one of the Oxford fuporcs．
$f$ ：in $N_{1}$ practically identical with $\mathbf{f}$ ．
$g$ ：identical with the $g$ of the isruna－fuporc．
$h$ ：the OE．$h$－rune obviously served as a model．
$k$ ：may be derived from a＇double calc－rune＇or from an $\mathbf{x}$ as found in various manuscripts（ $*$ ）；but cf．$x$ ． $l$ ：an 1 turned left and with a second lateral stroke added？
$n:$ in $N_{1}$ doubtlessly $=\mathbf{n}$ ．
$o$ ：probably derived from $\propto$ ；influenced by $\mathfrak{y}$ ？
$q$ ：the $\mathrm{N}_{1}$ variety could be adapted from k ．
$r$ ：a reversed＇$r$ with a stroke at the back＇．
$t$ ：a $t$ put upside down？or rather a ditto ea？
$u$ ：the＇reversed $V$＇type of $\mathbf{u}$ ．
$x$ ：probably from the $x$－rune．
$a e$ ：derived from $x$ ？
eu：a y put upside down $\left(\mathrm{N}_{\mathbf{1}}\right)$ ？
elau（ego）：connected with the stan－rune（in $\mathrm{N}_{2}$ ecce）？
The names（1）are sometimes obscure，but of those that are clear some tend to show that Nemnivus may have translated them from Old English ：

$$
\begin{aligned}
& \text { alar ' ennui' cf. OE. nead; } \\
& \text { cusil ' conseil' misunderstood OE. rad? } \\
& \text { dexu (?) : cf. derw 'oak': OE. ac. } \\
& \text { guichr 'impétueux, colère' : OE. cen? } \\
& \text { huil 'voile' : OE. sigil. } \\
& \text { louber 'lumière' : OE. dxg } \\
& \text { muin 'bienfait, présent': OE. giefu. } \\
& \text { nihn ( ? ) cf. OIrish nin 'ash ' : OE. æsc ? } \\
& \text { rat 'grâce' : OE. zuynn ? } \\
& \text { arm 'arme': OE. gar? }
\end{aligned}
$$

Others may have been chosen because formally they resembled rune－names，cf．fich and OE．feoh，feh；parth and OE．peorb， perf；rat and OE．rad；uir and OE．ur，oyr and OE．$y r$ ，aur and OE．ear，einc or hinc and OE．inc．
Perhaps a closer investigation may discover other similar－ ities；at any rate there can be no doubt that Nemnivus knew the OE．fuporc and derived his＇Welsh alphabet＇from it．

$$
*^{*}{ }^{*}
$$

（1）J．Whliams ab Ithel，Dosporth Edeym Davod Aur；or the Ancient Welsh Grammar．Llandovery 1856， 10 f ．
J．Loth，Vocabulaire vieux－breton，ss．vv，
C．Zeuss，Grammatica Celtica，1os9 f．；
H．Zimmirr，Nennius Vindicatus．Uber Enstehung，Geschichte und Quellen der Historia Brittorum．Berlin，1893，13x ff．

## Conclusion.

It is dangerous to found conclusions on one rune. Therefore I do not stress this point, but I do hope that further research may help to clear it. For the time being I only want to call attention to the environment of the isruna tract. In four of our manuscripts it is found in the neighbourhood of Greek material. In SG it is followed by a paradigm of the verb rodepw and by Greek rhetorical terminology borrowed from Cassiodorus. In B it occurs at the end of extracts from Cassiodorus copiously sprinkled with Greek words, and not far from a cryptogram based upon the Greek numerical system. In $U$ it is found on a page mainly devoted to Greek alphabets and numerals, whilst its inclusion in S was probably due to the presence of the regula formatarum. Even if we no longer believe that ' who says Greek, says Scotti ', it remains true that the Irish diaspora played an important part in the diffusion of Greek lore (1). At the same time these Irishmen displayed great interest in all sorts of esoteric lore and especially in cryptography. Their native system of writing itself had a marked cryptographic character.
One might now ask whether the English themselves had no share in the elaboration and the circulation of runic cryptography. The Hackness inscription proves that they probably played a part, but our tract contains few traces of their activity. They no doubt furnished the fuporc. The form in which it came down to us, however, points to a Continental centre, and one where direct English influence was not very strong, or where it was on the decrease. The man to whom we owe the runes in their present form had no doubt little contact with a living tradition. Whether some systematic account of runic cryptography existed in England we do not know. The names isruna and lagoruna go back to an English source, but those of the three other devices were at least translated into OHG. The appearance of similar systems in Icelandic manuscripts is somewhat obscure, but there are clear indications of English
(1) W. Traube, O Roma Nobilis, 341. Cf. especially B. Bischorf, Das griechische Element, passim.
160
(and Irish) influence there. As long as the ON. evidence has not been sifted, no definite solution can be given to the problem, but the results of the investigation may with some degree of certainty be summarized as follows :
The isruna tract is a systematic account of runic cryptography ounded on a peculiarity of the OGmc. fupark, viz. the division of that alphabet into three groups of eight runes. In the later English tradition the new runes seem to bave formed a group by themselves. Secret writing on this basis may have existed at an early date, but it was probably developed on the model of the Old Irish ogham and its cryptographic variants. The systems described in the tract may have been invented in England (for the hahalruna we have convincing evidence in the Hackness inscription), but the names of the last three are at east translated into OHG., and there can be no doubt that the text in its present form was written on the Continent. St. Gall seems to have played an important part in the diffusion, but it is not possible to decide whether the tract was first written there, as the internal evidence is contradictory. At any rate Irishmen may have had a hand in circulating the text, and there is some evidence that the tract reached the Continent via Wales. At an early date a somewhat modernized version reached the lower Rhine area (Braunweiler, Trier ?), and from there a new edition came to Salzburg in the tenth century. The text describes four types of cryptography and one of secret signalling. This last is found only in the St. Gall and the Brussels versions; it remained in use at St. Gall for at least two centuries. It does not seem to be based on the fuporc, but rather on the Latin alphabet. The four other devices first indicate the group to which the rune belongs, then its place in that group.

## Appendix I

A survey of Mediaeval cryptography lies entirely beyond the scope of this work, but a few examples which have come to my notice must be mentioned here, as they show a close connexion with St. Gall. I do not doubt that a careful search might
unearth other instances, and perhaps show a wider radiation of these nugae.
(a) St. Gall MS. 176 presents probably the most interesting case. It is dated saec. IX by Bruckner (1). The fly-leaf at the back of the volume has been pasted onto the binding. It was used by later hands for various inscriptions; it has much suffered from dampness and worms. The upper half contains a text beginning: Quę est latitudo? Bonorum operum usque ad inimicos dilectos dilatatio, etc. Below the text, a drawing representing Christ carrying the Cross (latitudo, longitudo, profunditas (?) inscribed on it), and a boy carrying a sign with the trilingual inscription; and short notes. Somewhat lower than half-way down the page a waved line marks off the lower half, which has been filled with taunting verse on one Crimalt or Crimolt, e. g.

Hauserit hoc si quem Crîmalt (2) ex uase liquorem
Peruigilem tussim suscit[e]t atque sitim.
The author has given his name in a cryptogram :
Crimalto (3) fratrum facetiori,
followed by groups of dots arranged on a horizontal line. One need not even take the trouble to count these dots, as the writer has indicated the number in each group by suprascript Roman figures :
V X X V VIII I XVII XVIIII

If we take the 5 th, roth, etc. letters of the Roman alphabet, we obtain the name Ekkehart. The handwriting has been identified as that of Ekkehart IV of St. Gall (ca. 980-1057/60) (4). This cryptogram concealing his name would not be so remark-
(1) A. Bruckner, Scriptoria III, 79.
(2) Corrected from 'Crimolt'
(3) Corrected from 'Crimolto'
(4) First by H. Hatrimer, Denkmahle I, 412 . Cf. E. Schulz, theer die Dichtungen Ekkehardts IV. von St. Gallen, in : Corona quernea. Festgabe Dichtungen Ekkehardts Strecker zum 8o. Geburtstage dargebracht (Schriften des Reichsinstituts für altere deutsche Geschichtskunde). Leipzig, 1941, 199-235, esp. 226. On Exkbhart's autograms cf. P. LebmanN, Autograyhe und Originale namhafter lateinischer Schriftsteller. Z. des Deutschen Vereins für Buchwesen und Schriftum 3 (1920), 6-16, $=$ ID., Erforschung des Mittelalers, 359-38 esp. 369 f. (with bibliography).
able, if above it he had not written Chlophruna. This is, as far as I know, the only instance of the term clopfruna not attached to the isruna tract. But what Ekkehart wrote were actually stopfruna 'dot-runes', not clopfruna. The latter were by definition not a form of cryptography, but of cryptocheironomy. The distance between the two was of course not very great : the simplest way to 'write' a tap was a dot, and vice versa a dot, or a number of dots, could best be 'sounded ' by tapping. The second part of Ekkehart's term, -runa, calls also for a remark. His cryptology is based upon the Latin alphabet; it has nothing to do with the runes. Hence, by the time when Ekkehart wrote his jibes against Crimalt (probably after 1034 (1)) only the name clopfruna remained. From this we may probably infer that the development of some forms of non-runic cryptography was at least partly inspired by the example of the runes. Other instances (using only Roman figures) are found in St. Gall MS. 899, p. 2 (Simi XI. VIIII. XVIIII. V. XVII. V. XVIIII. XVII. XIIII. XVII. XVIII. XX. XII. XI. V. VII. V. = similiter retrorsum lege), Oxford MS. St. John's College 17 (cf. p. 33), etc. Of course not all instances are due to imitation of cryptic runes : the device was too obvious not to arise in different places and at different times.
Some influence of the isruna system is, however, probably needed to explain the following two examples.
(b) At the end of the De inventione text in Vienna MS. 1761 (fol. $105^{r}$ ) there are several devices for cryptic writing (int. al. one with Roman figures instead of letters, of the type just mentioned). In one of these the alphabet is divided into three groups of six letters each, and one of five. The groups are indicated by short vertical strokes, the place of the letter in its group by longer vertical strokes ( $\|=a$, $\|\|\|\|\|=z$ ). In fact this device is simply an adaptation of the isruna. Since Vienna MS. r761 is also to be connected with the isruna group for other reasons (cf. p. 302 ), and is closely related with Vienna MS. 1609, which in its turn has a St. Gall element in
(1) In that year Poppo became Abbot of St. Gall. In the margin of MS 176, p. 298, Ekkehart scribbled a bitter remark on the nouitas Popponis, i. e. Poppo's reform.
its ancestry, there can be no doubt about the origin of this cryptic device.
(c) Vatican MS. Regin. lat. 421 consists of a number of fragments, some of which, according to Dom A. Wilmart, originated in St. Gall ( I ). Amongst the latter there is fol. 26 , with the following contents
(1) a concordance of Greek letters $A-K$ with Roman numerals I - XX.
(2) a majuscule alphabet, with above each letter a Roman numeral ( $\mathrm{A}=\mathrm{I}, \mathrm{Z}=\mathrm{XXIII}$ [corrected from XXIIII]).
(3) Exempla literarum. An alphabet $a-i$, then $i k i a$ ib ic $i d$ ie is iz ih i $\boldsymbol{\theta} . \mathrm{k} k a \mathrm{~kb} k c$, with above these pairs of letters the rest of the alphabet $(k-z)$. The whole is of course based on the Greek numeral system.
(4) Sic scribitur, followed by an example using Greek numerals as implied in (3); the transcribed example reads : adnexique globum zephyri freta kamma secamat. amen. (z).
(5) Item aliud genus scripture : from $\mathbf{a}=\|$ to $z=1$ II\| \||||
(6) Example; transcribed :
ferunt ophyr connexa kimba per liquida gazas.
(7) Item genus scripture secundum numerum literarum, the same as (2), but with a minuscule alphabet.
(8) An example using this system, with an interlinear transcription:
lazare surge / uenite morti t/ollo rapael.
This folio seems to have been written at St. Gall in the irth century; it may have passed through Goldast's hands.

There can be no doubt that the basic idea of the isruna remained vivid in St. Gall for at least two centuries after the tract itself was written down in MS. 270. Perhaps Poppo's (1) A. Wilmart, Codices II, 514 f. According to E. Dommler, Zur Tier(1) A. Wilmart, Codices 11, 514 f. According to E. Dommler, Zur Ther-
fabel, Z.f.d.A. $20(1876), 213$, fols. $16-20$ and $27-28$ formerly belonged to St. Gall MS. 899.
(2) This is a distorted version of the meaningless sentence used in teaching writing because it contained all the letters in the alphabet, cf. J. M. CLark, The Abbey of St Gall, 98 . This line also occurs in Recchenau manuscripts, together with the example in no. 6 , which obviously served similar purposes 164
reform was aimed int. al. to suppress the leisurely play with such schoolboy devices?

## Appendix II.

The manuscript evidence for runic cryptography in the North has not yet been examined as a whole. Some instances, e. g. Bodley MS. $57^{2}$, have received but little attention. By far the most interesting text edited thus far is the following extract from Jón Olafsson's Runologia (1);

Eigi skal Rúner rista, nema vel ráda kynne. var hann klokr
pvi er hier nú fyrst Stafrof huar međ̈ peir villa međ̃ sumer iraletur. Stafkarla letur. Pera letur. Punckta letur oc d-letur. Eru pat ecki utan fim Stafer.sem er .a. e. i. o.u.
5 Pessum Stofum skytr mađr inn i Ordenn epter pvi sem hentar.
Pa er Mal-runa Stafer meă sinum pydingum. huar af aller Rúna Stafer taka pyding af \& raadningar, \& huertt ad audru.
10. Betta er ira letur :
abcdefghiklmnopqrstuxyzp. riett
xdebcztklhinmpqpsrgyaufo. iral :
Stafkarla letur: bbcdffghkklmnppqrs
txxyzp
15 Pera letur: [p with $1,2,3,4,5$ strokes]

$$
\text { [d with } \mathrm{r}, 2,3,4,5 \text { strokes] a e i ou }
$$


[* (preceded by :) Riett er oc so giort..

* (preceded by :) Pá giora sumer so.] Aar fyrer a.
(I) I. Lindeuist, En skinnhandskrift frän Flatey, 116 ff.

20 Biarkan fyrer b. Hnesól fyrer c. Stúngit Týr fyrer d. Stunginn is fyrer e. fe fyrer $f$. stungit Kaun fyrer g. Hagall fyrir h . $\delta$-stunginn is fyrer $\mathbf{i}$. $\mathbf{O}$-stungit Kaun fyrir $\mathbf{k}$. Logur fyrir 1. Mađ̃ fyrer m. Nauđ fyrer $\mathbf{n}$. Os fyrir o. Plastr biarkan fyrer $\mathbf{p}$. ráng-snúit kaun fyrir $\mathbf{q}$. reiđ fyrer $\mathbf{r}$.
25 Sol fyrir s. Týr fyrir t. Ur fyrer u. Yr fyrir y. Duss fyrer $p$. Hier eru Pri-deilur.

[Fig. 23 (a)] Desse ætt heiter fes ætt. fyrst er fe. ur. puss. Os. reid. Kaun. Aunnur heiter hagals ætt [Fig. 23 (b)]
30 hagall. naud. is. aar. Sól.
pridia heiter tyrs ætt [Fig. 23 (c)]
hier er fyrst tyr. biarkan. madr. legr. yr.
Petta heita Prideilur. hier eru flester Stafer i Staf-rofe. fes ætt. hagals ætt \& tyrs $\mathfrak{\text { ttt. Ein skal Kvisl til Stafs }}$
huers if huerre att. en $n$ so fiplgazt [al : enn so folge Kvisler sem Stafer, duo Exemplaria] Stafer sem Kvisler i ætt hverre. So [al: pa eru 24 Stafrof. pau eru oll af prideilum, duo Exempll. $]$ eru \& pll Stafrof i fiolne [Fiplnir er Odins heite, enn mun hier merkia villuletur mprg ear Rwna book einhveria], ok eru aull
40 tekinn af prídeilum. Skulu i pllum pessum Rúnum sva margar Kvisler if fyrer [deest in duobus Exemplaribus'Vocula i fyrir] sem i Pri-deilum. \& so prjár ættir.
Half-deilur eru petta. oc eru tvær ættir Naudar ætt ok

 $\mid\| \| \|$ : $\|\|\|\|$ : ||l||l||: Naudar att fer aufugt, enn is-att riett. bat er so at skilia : Pu (Naud skal koma fyrir sig i hagals
xtt, pa twer sem hagall er) skalltt telia fyrst nauđ i hagals ætt. Pá hagal. kaun. reid. os. pus. ur. fe. fielgaztt so framm fra naud i Stafrofe unzt par kemr sem fe er. par skulu vera nauder átta. is skal koma fyrir sig í peirre ætt. skal su ætt oc so fara riett sem naudar ætt aufugtt (Eg meina rett framm) til pess par kemr sem Ur er, par skulu vera isar .viij.
, rüner Knapp-runer hals-runer belg-rúnir : Sól-runer. Sólruner: Ein-hver-fingar vinstre Einhverfingar. Ad-hverfingar Stungu-rúner: hemlur: Mid-hemlur. Fyrnsku runer. Ensku runer : Gran-lendsku runer : Vardar-rúnir
6o Hier epter eru Iotun-villur tvennar. er en fyrste Stafr fyrer f. oc fe. Ur. Puss. Os etc. Meire..... Minne.....
pá er enn eitt letur. oc eru kallađar hnack-villur. Pær eru so ristnar, ok eru prjár ættir fes ætt hagals ætt oc Tyrs ætt : fes ætt... Hagals ætt... Tyrs ætt...
65 Hier eptir eru KlapRúnir : Bxr eru ok teknar af Drí deilum. Pær eru til gamans. ef tveir Men $n$ talazt vid, ok vilia eigi ađrer skilie. Pâ skal klappạ til hverss orđz. eru pat prjár ætter: fes ætt. hagals ok tyrs-ætt. Til fes ættar skal klappa iij. hegg aull jafn fliot. en $n$ til Stafa seirna, so
70 sa skilie sem pú talar vid. enn varazt at taka ecki utan ein $n$ Staf ur hveriu orđe en fyrsta, po at so astandizt at fleire mege hafa. \& gior so orđ, \& gior bjer vel kunnigar allar ætter \& oll ord, so pu villizt ecki. \& klappa alltid til hverrar wettar, sem pu parftt Staf ur-taka. fe ur puss Os 75 reid Kaun || hagall Naud is ar Sol || tyr biarkan. madr. legr yr. Til hagals attar skal klappa ij fjot hegg. Allt annat sem fyr seiger. Til Tyrs xttar skal slá jj. hogg fliott sem hier er giortt $[3 / \mathbf{x} 2 / \mathbf{1} / \mathbf{I}]$ : fe. ha. $t$. So fiolgazt Stafer sem Kvister. Pat eru Kvister eđr Ord sem til hagre handar veit. Ordin, partil at kemmr at is. nefn is. ok sting vid skiott. pa er $\mathbf{E}$ stunginn is i Málrunum fyrer e. Nu villtu hafa d. klappa til tyrs ættar, \& nefn tyr \& stikk vid. pa er d stunginn tyr fyrer .d. Brestr pjer. nefn Ordin i fes ætt, par
85 til pu finnr Kaun, sting vid. pa er .g. stungit Kaun fyrer G

Ecki hefi ec sied fleire letur, enn po skil ec einginn $\min n$ gode lesare.
The 'Irish alphabet' (1. ro ff.) has the letters of the Latin alphabet in a completely disturbed order; yet some pairs are still found in the original or in reversed order: $d e, b c, k l, h i$, $n m, q p, s r$. I can see no connexion with the ogham order, except perhaps that $a, u$ and $o$ are found at the end of the - alphabet.

The stafkarla letur (13 f.), the pera letur (15), the punckta letur and the d-letur (16; cf. the names in 11. 3 and 4) are all variants of the notae sancti Bonifatui, i. e. the cryptic system in which only the vowels are at first sight unintelligible. The stafkarla letur and the punckta letur are well known from English and Continental manuscripts (cf. p. 389); the other two systems are only further developments. The pera letur starts from the Latin abbreviation mark for per: p. This symbol is made to represent $a$, and for the other vowels one to four strokes are added. The d-letur may have been inspired. by the crossed $d$ : d .

The runic alphabet ( 17 ff .) is of a late type, but curiously enough its $p$ reminds one vividly of the original $p$, its $q$ is simply such a $\mathbf{p}$ turned to the left. This $\mathbf{p}$ is explained as plastr biarkan, i. e. an opened $b$-rune, a term which applies to the open $b$ which is used for $p$ in later Norse inscriptions ( 1 ), but not to the regular $p$ of the treatise.

The system of cryptography which is described next, the so-called pri-deilur ( 25 ff .) is not based on this alphabet nor on an extended fupąrk, but on the sixteen-rune ON: fupark. The system is called pri-deilur because it is based on the fupark being divided into three groups of runes. The device used to illustrate this system reminds one of Maeshowe XVIII, Malifell and Bodley MS. 572; cf. also a couple of symbols in the Radven inscription. By the side of the $\overline{P r}$-deilur we find the half-deilur ( 43 f.) : here the fupąrk is divided into two groups of eight runes each; the runes of the former group are represented by eight to one $n$-runes, those of the latter by one
(x) O. von Fripsen, Runorna, 104, 141, 241 (fig. 74).
to eight $i$-runes. There is no epigraphical evidence of this system.

The numerous devices enumerated next ( 55 ff .) are more or less sophisticated ways of writing based on the pri-deilur system ( x ).

The klapprinir ( 65 ff .) are perhaps the most interesting of all. They are also founded on the pri-deilur system. They are used by people who want to converse without being understood by a third party. The groups are indicated by quick tapping, the runes by slower tapping. To render the dotted runes, such as $\mathbf{e}(=$ dotted i) the signaller is supposed to 'prick quickly ' (make a pricking or stabbing motion with the hand?), after having tapped the corresponding undotted rune.

Consequently the klapprunir are doubtlessly a form of runic cryptography, which was not the case with the clopfruna. But at the same time there is a strong suspicion that the whole extract quoted above is influenced by some text like the isruna tract, perhaps an expanded version of it. The stafkarla letur and the punckta letur have their roots in insular traditions, and so have the pera letur and the $d$-letur. The occurrence of $p$ in the runic alphabet is rather suspect, too; and could not the ${ }^{\text {? }}$ half-deilur be derived from a model with groups of eight runes ? The klapprunir themselves show a degree of sophistication which is no doubt late. Finally there are the ira letur or Irish letters; even if they show no connexion with the ogham system, their name probably points to the source of this and other devices as well. Therefore I believe that the klapprinir described here are a late adaptation of the system mentioned in the isruna tract (or in a similar collection of cryptological devices, not necessarily arranged into a formal treatise) to the Norse fupąrk.
(x) Cf. J. Llijegren, Run-Lära, 52 f.

## Chapter III

## RUNIC ALPHABETS (I)

By way of introduction a few words must be devoted to the difficulties which scholars who wanted to transfer a fubark to the order of the Latin alphabet had to face. At first sight the problem they had to solve may appear to be quite simple. In the cases which interest us here they set out from a fuporc of twenty-eight or more runes, so their difficulties can hardly have arisen from a lack of symbols ( I ). But we must not forget that the two alphabets were not parallel. Whilst for some Latin letters more than one runic equivalent could be found, there was none for two or three other letters; on the other hand a number of runes had no corresponding letter in the Latin alphabet. The following comparative survey will help to discover the points where difficulties may have occurred (for, the sake of clearness I distinguish between vowels (including diphthongs) and consonants, although transitions from one group to another will occasionally have taken place)
(a) Vowels. A twenty-eight rune fuporc had symbols for the following vowels and diphthongs : $a, x, e, e a, i, a, \infty(e)$, $u, y$; occasionally the runes $3, \mathrm{y}$ and j were also interpreted as vowels. This was amply sufficient to render the six vowel symbols of Latin $(a, e, i, o, u, y)$. In fact the alphabetizer was obliged to make his choice between two signs for $a(\mathbf{a}, \boldsymbol{x}$,$) , two or three for e(e, e a, \infty[>e]$ ), two for $\theta$ ( 0 , and $\propto$ whenever the etymological value of the latter was present in the alphabetizer's mind), two or perhaps three for $\boldsymbol{i}(\mathbf{i}, \mathfrak{j}, \mathfrak{y})$. Several circumstances (the basic

[^7] way into scriptoria.
fuporc, the degree of adaptation to the alphabetizer's own dialect, etc.) may have influenced his choice, and thus we are able to distinguish a good many independent attempts simply by checking on these critical points.
(b) Consonants. Here the problem was less complicated. Hardly any doubt was possible for $b, f, h, l, m, n, p, r, s$. But here again we can predict where we shall find divergences : at those points where the fuporc had more or fewer symbols than the alphabet. A twenty-four rune fupark had only c to take the place of $c, k$ and $q$. When the alphabetizer started from a fully developed fuporc, the problem was much simpler : there he found symbols for $k$ (calc) and $q$ (cweord). In many cases, however, these latest additions had not yet been incorporated into the fuporc prototypes, as is shown by the almost desperate attempts to find runic substitutes for $k$ and $q$. On the other hand there were two or even three possibilities for $g$ ( $\mathbf{g}, \overline{\mathbf{g}}$, perhaps also $\mathbf{j}$, cf. the English spelling $g$ ). The dental group also had a surplus : three runes ( $\mathbf{d}, \mathbf{t}, \mathbf{p}$ ) to fill two places $(d, t)$. But there was no rune corresponding to $z$ (at least not in the English fuporcs) nor to $x$-although some fuporcs assign the latter value to the fifteenth rune; on the other hand there was no use for the runes $\mathbf{w}, \mathbf{j}$ and $\mathfrak{j}$.
As a rule a few runes will have to be dropped in the process of alphabetization; some alphabets end with the frank admission: supersunt istae...

Not all alphabetizers had before them an unaltered English fuporc. On the Continent they may have started from prototypes which had been adapted to the non-English language of their surroundings, and this leads us to a special type of difficulties encountered by Continental scholars.
The runes were in all probability known, and learned, by their names. Just as the letters of the Greek alphabet were called alpha beta gamma etc., the runes were called *fehu *ur${ }^{*}$ Born- etc. The main difference was that, while the Greek letter-names had become meaningless words, the rune-names were mostly if not all actual nouns used in the language and,
consequently, subject to changes occurring in the language. If now the initial sound of a rune-name was affected by a linguistic change, the value of the rune itself changed : $\mathbf{o}={ }^{\circ}$ oail $->e=$ epel in OE. through $i$-umlaut. In High German territory a whole series of consonants were affected by such changes $(d>t ; t>z, z z ; k>c h, k h ; g>k ; b>p)$. When the English rune-name $d x g$ became tac, the value of the rune would at the same time tend to become $t ; t i(r)$ in translation gave ziu, porn gave dorn. We have already met traces of such adaptations in the chapters on the fuporcs. But when a scholar arranged such an adapted fuporc into an alphabet, he had to solve a dilemma : either to change the values of the runes together with the names, and thus to alter profoundly the whole - structure; or to transfer only the names, tac e. g. becoming the name of the $t$-rune. Since the affectation of the OHG. consonants varied from one region to another, and all attempts to translate the names were not carried through to the last consequences, a great variety of alphabetizations was bound to arise.
Another element in the problem were those instances where the two alphabets did not agree at all (Lat. $x, z$, sometimes: also $y$; runes $\mathbf{w}, \mathfrak{j}, \mathbf{y}$ and the extra vowels). Some alphabetizers. will use the runes which were left to fill the gaps in the alphabet. Thus we shall find ea for $x, \mathrm{y}$ for $y, \overline{\mathrm{~g}}$ for $z$, etc.
As to the actual procedure followed in shifting the runes from the fupark order to the alphabetic order, it is too early to give more than a few general indications. An important preliminary step was, that each rune was provided with its value in Roman script; for this must have given rise to the idea, especially with people no longer acquainted with the meaning of the fubark order, that this apparently meaningless sequence should be converted to the well-known alphabetic order. This procedure may again have led to differentiations: the values of the runes were not always easily rendered in Roman script. In some cases one had to be content with approximations, and sometimes differences of opinion become apparent, especially in cases where the acrostic principle did not apply. Thus the rune $\mathbf{x}$ is found with the values $x, l \& x$, $i l$, even $y$. Here
again it was up to the alphabetizer to select what he believed to be the nearest equivalents of the letters in the alphabet
We have also to keep in mind that the alphabetizers were not all equally skillful in performing their task. It is even doubtful whether they all attached equal importance to this sort of work : much has been made of the careful and longwinded attempts of men such as Alcuin and Hrabanus Maurus to adapt runic lore brought over from England for German audiences. But why should they-the highest representatives of Christian education of their period-have wasted so much of their time on such nugae? Should we not first think of minor scholars, pupils and copyists, who devoted a few moments of leisure in classroom or scriptorium to these interesting if not very profitable trifles? There may have been circumstances where people of greater authority and science took the trouble to examine briefly runological questions (cf. Chapter IV), but this will have been exceptional.

If to this we add that many alphabetizers can have had only incomplete and vague information on the essence of the runes, it is not surprising that some alphabetizations will look utterly clumsy.

## The Manuscripts and Their Runes.

$$
\begin{aligned}
& \text { 1. Berne, Stadt- und Hochschulbibliothek, MS. } 207 \\
& \text { (saec.VIII/TX) (1). }
\end{aligned}
$$

The oldest owner of this manuscript we can trace is the Benedictine Abbey of Fleury (St. Benoît-sur-Loire) : Hic est liber sancti Benedicti floriacensis (fol. $13^{8 v}$ ). With many other
(x) From the very extensive bibliography on this manuscript only the items which are most important for our subject can be mentioned here
J. R. Sonner, Catalogus Codicum MSS. Bibliothecae Bernensis. Bernae, MDCCLX, 424 ff .
H. Hagrs, $A$
H. Hagen, Anecdota Helvetica. (Gramm. Lat. VII), XV-XXXI, 39 ff. H. Hagen, Catalogus Codicum Bernensium (Bibliotheca Bongarsiana). Bernae, mbccelxxilil, 255 .
F. Losch, Die Berner Runeralphabete. Germania 30 (1885), 287 ff. E. K. Rand, A Vade Mecum of Liberal Culture in a Manuscript of Fleury. Philological Quarterly I (1922), 268 ff .

Fleury manuscripts it came into the possession of the humanist Pierre Daniel (many notes in his hand), and afterwards in that of Jacob Bongars, the French diplomat, historian and philologist. At his death his library came into the hands of the Strasbourg banker and jeweller René Gravisset, whose son Jacob gave it to the municipality of Berne in 1628 . The major part of this codex is still kept in Berne, but during its peregrinations part of it was lost; Miss B. Boyer discovered a number of the missing folios in Paris (Bibliothèque Nationale, MS. lat. 7520, fols. 1-24). The Berne part is bound in white vellum ( 1935 ). The parchment is of 'uneven quality and thickness. Composition : fol, 1, 264, 257, then 2-195
$(+$ Peris MS. 7520 , fols, 1 - $24=$ formerly 212-235) (1), forming 26 gatherings: ( + Paris MS. 7520, fols. $\mathrm{x}-24=$ formerly 212-235) (x), forming 26 gatherings :
$\mathrm{IV}[2-9]+\mathrm{III}[10-15]+3 \mathrm{IV}[16-39]+\mathrm{III}[40-45]+\mathrm{roIV}[46-125]$ $+\mathrm{II}[126-129]+7 \mathrm{IV}[130-185]+\mathrm{III}[186-191]+\mathrm{II}[192-195]$.

 of a quaternion; in the binding their order was reversed (2).
 27 or 28 lines to the page ( 35 on fols. 257 and 264 ). The manuscript is written in a rare ' Irish Continental ' script, dated variously from saec. VIII to IX/X (3). Allowing a safety margin on account of the rarity of the script, I believe saec. VIII/IX is as good a date as any, with perhaps the stress on VIII in view of the decennovennal table for A. D. $779-797$; there is a red dot by the side of $79 z_{3}$ but it may be accidental. At least two scribes worked at the manuscript there are some later additions. E. K. Rand and others have considered the
W. M. Linnsay, Berne 207 (Palaeographia latina II $=$ St. Andrews University Publications XVI) Oxford, 1923, 61،ff.
G. Michrsi, L'enluminure du haut moyen-Age et les influences irlandaises. 59 f., 66, figs. 79, 81.
B. B. Boykr, A Paris Fragment of Codex Bernensis z07. Classical Philology 32 (1937), 113-120; ID., Insular Contributions to Medieval Literary Tradition on the Continent. Ibid. 43 ( r 948 ), 32.
O. Homburger, Die illuutrierten Handschriften der Stadt- und Hochschulbibliothek Bern. I. Die vorkarolingischen und karolingischen Handschriften, fol. 19 ff . (not yet published).
R. Derolkz, Ogam, 'Egyptian', 'African' and 'Gothic' Alphabets.
(I) 1 follow the old ink foliation. There is a more recent pencil foliation number as follows: I, II, r-i95; Homburger: I, A, B agen proposed to (2) W. M. Lindsay, Berne 205; 63,
(2) W. M. Lindsay, Berne 207,63 , supposed that the title folio (i. e. fol. 1)
was misplaced by the binder : he seems to imply that originally fols. 257 and was misplaced by the binder: he seems to imply that originally fols. 257 and
264 belonged to the initial folios, although they may also have belonged to 264 belonged to the initial
$a$ lost part of the codex.
(3) H. Hagen, Catalogus, 255 : " s. IX-X"; W. M. Lindsay : "IX" (?);
O. Homburgr : "VII ex "
o. Homburger: "VIII ex.".
manuscript as a product of the Fleury scriptorium, and, as far as I know, no objection has been raised against this assumption.
E. K. Rand has very aptly described the codex as a "vade mecum of liberal the contents as far as needed for the discussion of the runic material: he $\mathrm{I}^{\text {r-w }}$ :
$26 \psi^{7}$ : in the right top the name ' Bongars'
Part of Ch. I of Bede's De vatione temporum : De loquela digitorum, ending on $264^{\mathrm{v}}$.
264* : a Greek alphabet; Mebrew alphabet; three runic and pseudounic alphabets, groups of variant runes, a list of rune-names Aethicus Ister's alphabet (further details of. infra)
$257^{\text {: }}$ an ogham alphabet, followed by a syllabary in the same scrip ba be bi bo bu, ca ce ci co cu, etc.). Between and partly over these lines a later hand wrote a Latin grammatical fragment in question and-answer form. Several mostly fragmentary alphabets, amongst which one may recognize runes, 'Egyptian' and 'African letters, etc. (2) the page contains a number of scribbles.
$257^{\circ}$ : four lines from Optatianus Porphyrius (also occurring on fol. $8 \mathrm{r}^{\mathrm{r}}$ ), in a later hand.
IN CHRISTI NOMINE INCIPIT CYCLUS paschalis XVIIII Sanctiapud BITHINLAM IN SINODO NICENA TEMPORIBUS estque exordium huius suptut scribti cycli DCCL.XXVIIII anno ru[m...] anni sunt. In five columns, from A. D. 779 to 797. NCIPIUNT de titulis pascalis aegyptionum, etc.
$2^{7}$ : title page, in capitals and runes (cf. infra).
$2^{2}-11^{\mathrm{V}}, 13^{\mathrm{r}}-17^{\mathrm{F}}$ Donati ars prima, de litteris, etc. de barbarismo.
$11^{\boldsymbol{V}}-1 \mathbf{1 2}^{\mathrm{V}}$ : Servii qui dicitur tractatus de finalibus litteris (end missing).
17 ${ }^{\mathrm{r}}$ : Ars quaedam anonyma
18* Commentum in Donati artem minorem, de litteris, etc. de barbarismo etc. Juliani Toletani, ut videtur, grammatici sive illius simillimi.
$7^{*}$ : Servii centimetrum
$\sigma^{*}$ : Excerpta de panegyrico Porphyrii Optatiani.
$\mathrm{I}^{v}$ : Commentum in Donati artem maiorean vel Juliani grammatici vel eius simillimi.
1 II $^{\text {r }}$ : Donati ars maior de octo partibus orationis.
112 ${ }^{\text {r }}$ : Ars grammatica anonymi.
$127^{\mathrm{F}}$ : Tractatus de nominibus mobilibus.
127. Ars anonymi conpendaria.
$130^{1}$ : Asperi ars grammatica.
$40^{8^{\circ}}$ : Sergii in Donati artem explanatio
1688: Isidori excerpta grammatica ( $177^{\mathrm{r}}$ De differentiis; De glosis
(1) See his paper with this title.
(2) I have examined this page in detail in my paper Ogam, 'Egyptian' (2) I have examined this page in detail in my
African ' and' Gothic' Alphabets. Cf. also infra.

De barbarismis; ${ }^{1777^{\gamma}}$ De soloecismis; ${ }^{1788}$ De uitiis; ${ }^{178}$

Hagen's "excerpta grammatica" does not describe the contents of fol. $168^{\mathrm{r}} \mathrm{ff}$. very accurately. There we have in fact a transition towards the computistical items originally found at the end of the manuscript (cf. $257^{v}, 264^{r-v}$ ) : $181^{v}$ De rethorica et dialectica; $\mathbf{1 8 7 ^ { v }}$ DE PERIERMENIIS; $189^{2}$ De mathematica; De astronomia; $189^{v}$ De mundo; De forma mundi; De caelo eiusque nomine; $192^{\circ}$ Item de nominibus stellarum quibus ex causis nomina acciperunt; 194v CVRSVS LVNAE PER DVODECIM SIGNA
The above survey shows clearly why a later binder shifted fols. 257 and 264 to the beginning of the codex : in this way most of the alphabetic material was made to form some sort of a unit. A glance at fols. $264^{\mathrm{v}}$ and $2^{\mathrm{r}}$ shows that the runes ornamenting the latter were chosen from the three alphabets on the former. Therefore our study has to start with fol. $264^{\mathrm{v}}$.
Fol. 264 must for some time have been the last leaf of the manuscript, as it is much worn. At the bottom a loose strip of parchment has carefully been replaced with paper, and the lower part of fol. $264^{\mathrm{r}}$ has been covered with transparent paper to prevent further damage. Fol. $264^{\mathrm{v}}$ too has suffered. The somewhat greasy parchment has not held the ink well : some letters, especially the heavily drawn letters of the alphabets, have fiaked off; the black ink is as a rule better kept than the red. Moreover the lines were cut so deep that the parchment actually broke off, which necessitated the repairs just mentioned. Of course all this does not make for an easy reading ( r )
Fol. $264^{\mathrm{v}}$ shows the following arrangement :
11. 1-11 : the end of the loquela digitorum.
11. 12-15: a Greek alphabet with the numerical values of the letters.
11. 16-20: a Hebrew alphabet with the names of the letters. 1. 21 : blank.
(1) The excellent photographs which were made for me at the Stadt- und Hochschulbibliothek brought out a number of details hardly visible to the naked eye in the manuscript.
11. 22-27: three runic (or pseudo-runic) alphabets.
11. 28-29: seven groups of three runes (or rune-like symbols). 11. 30-31 : a list of rune-names belonging to a runic alphabet
11. 32-34 : the letters of Aethicus Ister's alphabet, with their names.
On the line immediately preceding the runic alphabets there seem to be traces of two or three words; but if so, their irregular appearance rather points to probationes pennae. Apparently the runes, like the other alphabets, did not receive any inscription. A couple of letters (XA ?) were scratched with a dry point, but seem to have no relation to the following runes

The runes are written in a firm hand, which gives them a quite 'runic' appearance. 'If some readings are uncertain, this is due to the ink having flaked off or to the parchment having been damaged. (Yet for some runes the true form may be supplied from the ornamental page ( $2^{r}$ ), where they were lso used) They are divided over four lines, each of which fits in between two lines of the ruling. There are three alphabets, separated by a series of three to six dots placed in a vertical line. The first alphabet, written in red, comprises the characters of the first line and the first two of the second line; the second, in black, the rest of the second line and the first two of the third line; the third, again in red, the rest of the third line. The runes of the first line have consequently received ample space, whilst those of the next two lines are rather crowded in places. The fourth line of runes consists of seven groups of three runes each, also marked off with sets of dots (five or six); they are alternately red ( $1,3,5,7$ ) and black ( $2,4,6$ ).
 ェя



As to the characters of these alphabets, those of the first are certainly runes. The difficulties of the alphabetizing process have mostly been solved in a clever way, For $a$ the compiler chose a, for $k$ the calc-rune (k), with which a $K$ indicating the value seems to have coalesced in the prototype (cf. infra); for $x$ he took the $x$-rune, for $y, y$, for $z$, ea. This last choice occurs in almost a score of alphabets; a tentative explanation has been offered on p. 130, and we shall return to this point after the whole material has been examined. The form of the $q$ is obviously non-runic; one may best describe it as a heart with a figure 4 written below it. This character may have been supplied by one of the fictitious alphabets referred to before; or else it may be a transformed $Q$. As a matter of fact the $q$ 's of the two following alphabets seem to be capital Q's with some fanciful strokes added below.

Consequently the fuporc used by the alphabetizer comprised the additional runes a ea $y$ and $k$ (also $j$ and perhaps st, cf. infra), but no $q$-rune. The absence of this last character in the prototype is hardly surprising, since even in complete fuporcs it seems to have been invented ad hoc. The forms of the runes are very well rendered; the distance between the underlying fuporc and the alphabet cannot be very great. Yet the following alphabets (II, III) show that to the compiler the runic characters were a category of style, a set of types interesting from the artistic point of view, rather than a sort of writing connected with his native tongue and with the mythical pagan past of his people (1). The values of the characters in the first three lines are not indicated, but there is a minuscule showing the value above each character in IV.
The characters in II-IV show even more damage than those in the first alphabet. In II the equivalents of $r s t u$ seem to have been partly retraced at a later date. In III the ink of all letters has flaked off more or less completely; $c, m$ and $u$ have become almost illegible, $i, k, l, r, t$ and $z$ are also badly damaged. In IV the last letter has practically disappeared, and besides parts
(1) On fol. $8 \mathrm{I}^{\dagger}$ there is an inscription in Aethicus's letters (de partibus rationis). In Valenciennes MS. 59 runes and Aethicus's letters are used together in one inscription, cf. p. 406.
of letters, the minuscule equivalents above the letters have mostly become invisible. Yet, as in I, the parchment is usually less soiled where the ink came off, and so the strokes look white on a darker ground.
A number of characters in IV are certainly runes, viz. the first character in each triad :
$i$ : the first $i$ is the English g . The reason is rather obvious; judging by the acrostic principle, the compiler was fatally led to consider a rune, the name of which was ing, as a variant for $i$.
0 : the first character for $o$ is the $\propto$ variant we also find in Oxford MS. Şt. John's College 17 and in Leyden MS. Voss. lat. F i2 $\delta$; it also occurs in the Thames inscription.
$g$ : the first $g$ is $\mathfrak{j}$, a type known especially from Continental manuscripts, but also found in the Westeremden inscriptions, etc.
$\boldsymbol{v}$ : w found its place among the variants for $u$; since its value outside of England could only be expressed by $u$ (or uu), its function as a $u$-variant is what we should expect.
$t$ : for $\mathbf{p}$ there were two possibilities: $d$ or $t$. Our compiler chose the latter, which is not found in any other alphabet.
$i:$ in the second $i$-group the first character is probably the English 3. A value $i$ for this rune is not unparalleled : Vienna MS. 795 describes it as " i \& h " and the name ih is found in all Continental fuporcs. The second letter of this triad may be the usual $\mathbf{g}$, which came to be classified amongst the $i$-variants because in OE. $g$ was used for $\mathrm{jj} /$.
$a$ : the other candidate for the place of $a$ in the alphabet, $x$, has found its place in the group of substitutes.

In alphabets II and III runic elements are very few. In III the $h$ is the variant type found in Cotton MS. Domitian A 9 and in a few alphabets. The last character of III may be a slightly modified form of ea, which took the place of $z$ in the first alphabet as well. But the remaining letters can hardly
be explained as runes. F. Losch ( I ) made an attempt to account for each single character, but even comparisons with the whole corpus of runica manuscripta known in his days could not make the runic nature of all these letters probable. There is no doubt that a number of characters look perfectly like runes, but the values do not correspond, in II $d=\mathbf{p}, f=\mathbf{x}$ or ea ( (), $p=\mathbf{e a} ;$ in III $d=\mathfrak{j}, e$ perhaps $=\mathbf{s t}, \boldsymbol{m = 1}$. Other characters seem to be only slightly modified runes, e. g. $a, b, n, t, u$ in III, and also a number of letters in IV. The most plausible explanation for these lists of pseudo-runes is, that the compiler needed a number of characters for the ornamental script on fol. $2^{\text {r }}$. After having written out the first alphabet, he simply went on inventing new types which would allow him to compose a cryptogram offering more difficulties than mere runes. F. Losch already pointed out that on fol. $2^{r}$ the scribe used especially characters from II; those of III and IV come next, whilst he seems to have avoided using those in I as much as possible (2). But perhaps his inventive skill was of the same kind as Nemnivus's (cf. p. 157) : what he apparently created " subito ex machinatione mentis suae" was often, consciously or unconsciously, inspired by other alphabets. The runes obviously played the main part in this respect, but other alphabets too may have provided a number of characters. Thus a number of letters in II and III remind one of the 'Gothic', 'Egyptian ' and 'African' letters which were in all probability known in the immediate surroundings of our scribe. The first three characters in II, e. g., show an extraordinary resemblance to the first three letters of the 'Gothic' alphabet in Munich MS. 14436 (cf, p. 254).
It is quite likely that the scribe first wrote out these alphabets on some spare space at the end of the codex before using them for the ornamental title page to Donatus's Ars minor (fol. $2^{\text {r }}$ ). The artistic skill displayed on that page has rightly been praised. To the left there is a large initial I ( 214 mm high), with knot
(i) F. Losch, Die Berner Runenalphabete, 295 : "Ich glaube, dasz unser Schreiber nur Zeichen verschoben und vermischt, nicht dasz er Formen geändert habe".
(2) F. Iosch, Die Berner Runenalphabete, 293.
and plaitwork ornaments, and animal heads at the ends, a fine example of insular workmanship. At the top it has an animal ornament made up of four birds. The text is written in large ornamental capitals, partly filled with green, red or sepia. Under each of the first three text lines there is a line of runes (or pseudo-runes) repeating the text. These runes are in red ink, except the last two lines, which are alternately red and black. The first and the second line of runes are separated from the following line of capitals by an ornamental strip (animal knots). For the fourth line of the title, however, this arrangement could not be followed, as the artist seems to have miscalculated his space. Therefore he shifted the capitals to the left side of the page, and wrote the corresponding runes by the side of the text instead of below. A glance at the set-up shows that there can be no doubt about the artist's intention he planned the page so as to include the runes from the very beginning. The capital text of the title reads as follows :
and the 'runes':

 $=$ incipit ars KNY


Fic. 25

By checking this inscription with the alphabets and groups of letters given above, one will find that of its forty-eight letters
eighteen are taken from II, thirteen from III and IV each, and only five from the purely runic alphabet. The total number of runes (from II and IV) is twelve. The inscription differs only in very few points from the models set down on fol. $264^{\mathrm{v}}$; yet these differences may be important. First of all, there is the use of $\boldsymbol{j}$ for $i$ in nomine and donati. As we saw, IV classifies it amongst the variants for $g$. In III, however, the $i$ may well be a modification of the same rune; it must therefore be added to the fuporc used by the compiler. The $u$ in urbis is probably a variant of the third $u$ in IV : the right lateral stroke has been omitted. Losch preferred another explanation: he believed that the last letter of $\operatorname{gramm}(a) t i c(i)$ was mistaken, and that the form of $u$ in urbis was that intended by the inventor to render $u$. He was forced to take this position because he read the fourth word of the inscription scomi (= sanctissimi) instead of sumi ( $=$ summi); but the latter reading leaves no doubt, and so Losch's proposal may safely be dropped. The last letter of urbis is again problematic. It may be a variant of the $s$-rune, such as we also find on the Bewcastle Cross; but why did the compiler not list it in II or III ? This and a couple : of trifing differences (the confusion of $c$ and $u$ just mentioned; the slightly modified $d$ in donati, cf. that in II, and $n$ in in, cf. the $n$ in III) can hardly mean that the compiler of fol. $264^{v}$ was not responsible for fol. $2^{\mathrm{r}}$ as well. Snall variations were bound to occur, even if the artist created the extra letters himself. Therefore the appearance of a new $s$-rune in urbis has hardly any importance from the runological point of view. The $r$ in III consists of two strokes; there is no trace whatsoever of the ink of a third stroke having flaked off; but the $r$ of $\operatorname{gramm}(a) t i c(i)$ has an additional vertical stroke and forms a triangle.
Even if we must admit the possibility of his having used non-runic models, the compiler's skill in creating new 'runes ' is remarkable; but it was probably not unique. No profound analysis was required to establish the fundamental principles of runic script, and on this basis new runic characters could be formed if needed. A number of runes found in alphabets may owe their origin to such a procedure. This possibility should
also be kept in mind when we discuss the origin of the additional runes.

The last line of runes on fol. $264^{\mathrm{v}}$ is followed by a list of twenty-three rune-names. There can be no doubt that these are the names of the runes in alphabet I. Unfortunately the reading is rather difficult and uncertain. Not only has the ink come off in places, but in the act of ruling, the line on which the names are written was cut so deeply, that the parchment afterwards came apart. A couple of wrinkles in the parchment and its being soiled along the margin add to the difficulties. The writing is obviously contemporary with the bulk of the codex, and from the same hand as the rest of fol. 264 : many ligatures, insular $g$ (except in hagil). The names read as follows (cf. the runes on $\mathrm{p} . \mathrm{r}_{7} 8$ ) :
ach. berc. chen. dei. egch. fegc. gobo. hagil. ish. kalod.
logo. man. net. os. per. quello. ret. sigil. ti. u[r] [..]uch. uir. ear.
Several of these names correspond exactly to English runenames : berc (i. e. the Northern equivalent of WS. beorc), dei (a form usually claimed as specifically Kentish, but found in other dialects as well (1)), man, os, ti, ear (these are common OE. forms). In sigil the first $i$ causes no difficulty: before palatal $g$ the vowel $y$ became $i$ at an early date (2). The $i$ of the second syllable is probably an indication of an early borrowing (3). The name of $y$, uir, may also preserve an archaic spelling, cf. the oldest Bede manuscripts, the Corpus glossary, etc. (4). For the remaining names some measure of adaptation to Continental Germanic phonology and orthography, or, alternately, corruptions of various degrees, must be postulated: ach: though final $c h$ instead of $c$ is a not unknown early OE. spelling (5), I rather believe we have here an adaptation
(1) E. Kruisinga, (Review of R. Moilur, ther die Namen des nordhumbrischen Liber Vitae, 1901), Anglia Beiblatt 16 (1905), 145 ff .
(2) E. Sifvers-K. Brunner, Altenglische Grammatik, § 31 A. 2.
(3) E. Slevers-K. Brunner, Altenglische Grammatik, § 44 A. 6 .
(4) E. Snevers-K. Brunner, Altenglische Grammatik, § 94 A. Cf. the discussion of various views in H. Strōm, Old English Personal Names, 145. (5) E. Sivvers-K. Brunner, Altenglische Grammatik, § 206 A. 9.
to High German phonology. The same probably holds for
chen : German influence may be postulated the more readily since there are other and undeniable instances of such a phenomenon (cf. quello; net, ret).
egch: one might perhaps try to analyse this complex as $e g+e h$, but the accumulation of gutturals is probably a scribal affectation. OE. eh would normally appear as ech in the orthography of Germanic words as practised in France (r). Our scribe seems to have had little notion of the value of $h$; cf. ish.
gobo : one of several German substantives derived from the stem *gib- or *geb-may be at the origin of this form (gebo, geba, giba) (2). We may also start from an archaic OE. gebu : in the oldest OE. texts $b$ also stands for the bilabial spirant, which is spelled $f$ afterwards (3).
hagil : No such form is known from OE. name-lists : these have hegl, hxgl, hxgel or, still closer to the Berne *. form, hegil and hxgil (4); a form hagol also exists, but is never found as a rune-name. The name hagil is an adaptation of hegil or hægil to Continental Germanic phonology or orthography (5). OHG. has normally hagal.
ish : the final $h$ can hardly have a phonetic value. In the prototype it was perhaps meant to indicate the value of the preceding $h$-rune, and in the course of copying found its way into the list of names.
(1) F. Kaurfmann, Uber althochdeutsche Orthographie. Germania 37 (1892), 243-264.
ID., Das keronische Glossar und seine Stellung in der Geschichte der althoch deutschen Orthographie. Z.f.d. Ph. 32 (1900), 145-174.
(2) W. Braunb, Althochdeutsche Grammatik, $\$ \$ 30,207,222$.
(3) E. Sievers-K. Bruwner, Altenglische Grammatik, § 192 A. 4
(5) The form hagil is given by E. G. Graff, Sprachschatz IV, 797 as occurring in a Trier MS. of Heinrici summarium.
kalod : for this name too some sort of coalescence must be assumed. We saw that the rune to which this name belongs had absorbed the letter $k$ which indicated its value. As far as kalo- goes, this might be a mistake for $k a l$; but then final $d$ remains unexplained. Therefore I propose to start from an arrangement like this

$$
\begin{array}{cc}
\text { kalc } & \text { id } \\
\boldsymbol{\nwarrow} & \mathrm{K}
\end{array}
$$

where $i d$ would be an abbreviation for $i d e m$ (or result from : id $+=i d$ est). In this connexion I must refer the reader to the fuporc in St . Gall MS. 878 , which also has Roman K for $k$. The letters id would then have been appended to the name, giving kalod, whilst the variant (rather than : indicator of the value) $K$ became part of the rune. Such a syncretism is far from being unique; it will of course occur most easily in alphabets which occasionally abandon the order of the Latin alphabet and which are sufficiently strange to escape being corrected, e.g. Aethicus Ister's alphabet ( x ).
$\operatorname{logo}: \quad$ obviously a mistake for lago.
$n e t, r e t$ : although final $t$ instead of $d$ is not unknown in early OE . spelling (z), these forms are rather to be interpreted as adaptations of ned and red (corresponding to WS. nead/nied and ræd) to High German phonology.
per: this name has lost its final consonant, $d$ or $t$; in view of net, ret, the original form was probably pert.
quello : here we have a certain proof of German influence. The compiler needed a word with initial $q$ and chose the first that occurred to him. For obvious reasons quello cannot help to elucidate the OE. name cweord :
(I) The 22nd letter of this alphabet in Vienna MSS. 1609, 1761 and in number of other manuscripts clearly consists of two letters which were originally independent; similarly the third letter in Nümberg MS. 1966.
(2) E. Sievers-K. Brunner, Altenglische Grammatik, § 224 and A. 2.
he who chose the former probably did not even know the latter, just as he had to invent a rune-like symbol to take the place of $q$ in the alphabet.
$u[r]$ : the final $r$ is hardly visible, but there is no reason for supposing that there could have been another letter instead.
[el]uch : only the last three letters of this name are plainly legible. To the left of $u$ there came a long letter; judging from the space it occupied, this must have been $l$ or, less probably, $d$. It was preceded by one more letter, only the upper part of which is more or less visible. In agreement with other sources I propose to read eluch, cf. elux in the isruna fuporc, heluch in Vatican MS. Urbin. 290, helach in the De inventione alphabets.
ear : if any further proof is needed to convince us that the alphabetizer used the ea-rune for $z$, this name may be considered conclusive.
The alphabetization reflected by this list completely agrees with that of the first alphabetic series (I) : a for $a, \mathbf{k}$ for $k$, o for $0, \mathbf{x}$ for $x$, ea for $z$. There can be no doubt that the names belong to that alphabet : only the insertion of the two ornamental pseudo-runic alphabets and of the groups of variant runes caused them to be separated from the corresponding runes. This probably indicates that the alphabetizer and the creator of the pseudo-runes were two different persons: the latter started from a ready-made runic alphabet and may hardly have realized what sort of letters he was copying and imitating. This also explains why amongst the rune-names there appear such strange forms as egch and gobo : the scribe of Berne MS. 207 probably had no direct knowledge of the runes nor of their names. There are unambiguous traces of Continental Germanic, and specifically High German influence. On the other hand there seems to be no indication of Irish influence in the runic material.

The origin of the seven groups of three characters in IV now
becomes clear too: the seven runes not used in the alphabet, i. e. $\mathbf{m}, \boldsymbol{\infty}, \overline{\mathbf{j}}, \mathbf{w}, \mathbf{p}, \mathbf{3}, \boldsymbol{x}$, were probably given at the end of the alphabet. The creator of the two fanciful alphabets also shaped two new characters to act as variants for each superfluous rune. The fuporc from which he started may be reconstructed as follows:


On the whole this fuporc has a very 'epigraphical' appearance; only two characters, the $u$ - and the $y$-rune, show some concession to manuscript habits. Notwithstanding the strange forms of some rune-names, which were more subject to malformations than the runes themselves, I believe this part of the Berne material deserves to be trusted more than runologists have felt justified to do. Their hesitation resulted from two facts : they examined the names too much by themselves, and as far as the runes were considered, they made no clear distinction between runes and pseudo-runes.
As to the origin of the underlying fuporc, the names of the runes offer very few clues. The original was probably quite old, but it is hard to localize it even approximately. Kent may have some claims in view of dei; the vowels in net and perhaps also ret point to a non-West-Saxon origin; but on the whole the orthography is too shaky to allow of definite conclusions.

The contrast between the runes on fols. $264^{\mathrm{V}}$ and $2^{\mathrm{r}}$, and the material on fol. $257^{\mathrm{r}}$ is very striking indeed. Whilst the first of these pages gives a well-ordered catalogue of letters, and the second an example of their artistic use, fol. $257^{\mathrm{r}}$ contains an unsightly jumble of characters. If the equivalents were not
(*) In one point I have anticipated the conclusions of this study, viz. in identifying $\mathbf{j}$ and $\mathbf{j}$ :
188
indicated above most of them, it would hardly be possible to identify more than half a dozen. As far as we can judge from the letters indicating the values, these $5 \mathrm{I} / 2$ lines of characters must be contemporary with the rest of the manuscript. There are all in all ior characters, for 93 or 94 of which Latin equivalents are given ( 1 ) :

$$
\begin{aligned}
& \begin{array}{llll}
\text { (5) } \\
\text { (6) } & \mathrm{p} \text { q nun tau mes } & \text { n sarnech }
\end{array}
\end{aligned}
$$

As it is impossible to divide them up into alphabets, the characters in each line are numbered from left to right.
There can be no doubt about the runic origin of a number of characters: (I) $2,3,5,6,7,8,13,15,16,17,18,19$; (5) 10, 14, 17, 18. Moreover there are a few for which such an origin may be postulated with more or less certainty : (1) 4 , 9, 14; (2) $1,2,4$; (5) $12,13,15,16,19$.



In the first line no. 2 is doubtless a, and no. 3 d. No. 4 might of course be interpreted as a Greek $H$, but it could as well be a slightly modified $\mathbf{e}$. The next $e$-symbol is probably $æ$; its lateral strokes seeming to be curved upward, one might interpret it as an $o$, but both the value $e$ and the fact that $o$ actually follows as no. 7 , are in favour of the former solution. The value $e$ calls for a rune-name esc (cf. Erfurt gl. 772 and Brussels MS. 9311-9319). The form for $n$ has nothing surprising: the regular $n$ could easily develop into the more
(1) Cf. the plate in my Ogam, ' Egyptian ', ' African ' and ' Gothic ' Alphabets.
' natural' or elementary forms + or $\times$. No. 7 is a somewhat clumsily drawn $\mathbf{o}$, no. 8 a rather badly distorted $p$. I have not hesitated to connect no. 9 with $\mathbf{s}$, especially because similar forms of $\mathbf{s}$ are found in a number of other manuscripts (e. g. Cotton MS. Titus D 18). No. $\mathrm{I}_{3}$ is a hardly modified form of $h$, no. 15 of $\mathbf{1}$, no. 17 of $\mathbf{n}$, no. 19 of $\mathbf{p}$. The other runes in this line show more important alterations : in no. $16(\mathrm{~m})$ the strokes between the vertical shafts do not intersect as in a normal m ; in no. 18 (o) the upper ends do not meet to form the closed loop of $\propto$. The value $o$ for this rune must be due to the adaptation of the English name to Continental Germanic phonology ( $e$ epel $>$ odil). The form of the second $p$ (no. 19) is easily explained if we remember that the two hook-like lateral strokes sometimes met to form x (Nürnberg MS. 1966, Paris MS. 5239); a second vertical stroke was added in one other alphabet : the 'Alanic' of Munich MS. 14436. As to the character $k$ (no. 14), the most plausible explanation would be to connect it with the $g$-rune. The use of a rune of the voiced guttural type for $k$ is found in a number of alphabets. Usually it $\overline{\mathrm{s}} \overline{\mathbf{g}}$ or $\mathfrak{j}$. The $g$-rune may have been transferred in the same way. This transfer probably implies High German influence.

The first character of the second line may be a rune ( x ? ), but since its value has become illegible its origin can hardly be ascertained. No. 2 is probably $u$, no. $4 \mathbf{y}$ ( $y$ is the value we should expect in that position, not a).
In (5) no. io is the same $d$ as that in (1). No. I4, $h$, is again clear, and so are nos. $17(m)$ and $18(n)$. The form of the $f$-symbol (no. 12) may be derived from the $f$-rune; less probable, but not to be rejected a priori, is the identification of no. I3 with the $j$-rune, as its English name (ge(a)r) would lay near its use for $g$. For $k$ we find the same character as in line (1). For no. 16 I see no other explanation than to connect it with 1 , even though the shape of the letter rather reminds one of a minuscule s. The last letter of this line may be a distorted $\propto$.
Consequently the following runes (in normalized forms) may be gleaned with more or less certainty from the collection of characters :

##  <br> Fig. 28

These runes can hardly have belonged to one alphabet, as there are two symbols for $e$ and $o$, but none for a whole series of other letters. Perhaps this fragmentary list may be considered as a runic alphabet in nucleo : the outcome of an attempt to arrange the runes in an alphabetic order, which did not succeed because the alphabetizer had too scanty a knowledge of the runes. At any rate these runes seem to have nothing to do with those on fols. $\mathbf{2 6 4 ^ { y }}$ and $2^{x}$; they can hardly be due to the same compiler.
Before pronouncing a final judgment on the whole collection, a few words must be said about its non-runic elements. I have made an attempt elsewhere to trace these elements, and I believe to have succeeded in identifying many of them as belonging to spurious 'Egyptian' and 'African' alphabets (1). Thus our manuscript is connected with a group of alphabet collections which seems to have been compiled at least as early as the ** eighth century, and which was certainly known in Northerin France. This fits in very well with the supposed origin of the Berne manuscript. Of the remaining letters, a few are taken from a Hebrew alphabet, and one is an ogham symbol.
The collection on fol. $257^{\mathrm{r}}$, however, is a disorderly accumulation, whilst the related collections give the letters in neatly arranged columns, usually with a more or less appropriate inscription. In fact not one alphabet in the Berne collection is complete, only one approaching this ideal. Bits of alphabet sequences may be disentangled from the rest, but they hardly ever comprise more than six or seven characters. The whole seems to be copied at random from an exemplar which may have been in poor condition. The scribe had apparently less understanding for these alphabets than for the ogham material in the upper third part of the page. The first, partly erased line contains the ogham symbols arranged in the order of the al-
(1) Ogam, 'Esyptian ', 'African' and 'Gothic' Alphabets.
phabet, with the diphthongs following after $\boldsymbol{z}$. The next six lines seem to be an ogham syllabary, perhaps a key to crypto graphy. It consists of groups of five vowel symbols, each preceded by a consonant symbol : ba be bi bo bu, ca ce ci co cu, etc. Only an Irish scribe could have possessed such an accurate knowledge of ogham script, and his nationality probably explains at the same time the poor state of the runic material
It is hardly possible, then, that the runes on fol. $257^{7}$ should be due to the same compiler as the well-ordered and on the whole very trustworthy alphabet of fol. $264^{\mathbf{v}}$. In the latter the $\mathfrak{x}$ has the equivalent $a$, in the former $e$; the latter uses the $k$-rune for $k$, the former the $g$-rune; and they have different types of $\mathbf{j}$ and $\boldsymbol{\propto}$. But if the runological value of fol. $257^{7}$ is small, it allows us to get a glimpse of an alphabet collector's workshop. It also shows how broad a basis is needed for disentangling such alphabetic material.
2. Leyden, Universiteitsbibliotheek, Cod. Vossianus lat. F. $12 \delta$ (saec. IX).

This manuscript is a membrum digjectum presumably written in the Abbey of Fleury (St. Benoit-sur-Loire) (I) So little is left of the codex that it is hard to characterize it. It may have been a collection of canones, as this could very well include the regula formatarum (fol. $3^{\mathrm{v}}$; cf. Salzburg MS. a IX 32, p. 115 ) The manuscript now consists of eight folios in a modern binding with vellum back and corners. The parchrnent is rather rough and heavy; the lower unmarked quires and are numbered $35-42$; the table of contents inserted at the beginning follows a new numbering, I to 8 , and this we have also adopted
(1) According to the catalogue of 1716 the manuscript (or one of the texts formerly bound up with it?) once belonged to Pierre Daniel, the Orleans humanist, who acquired many manuscripts from the Abbey of Fleury. An old ex-libis on foi. $7^{7}$ has been partly erased : LIBER SANCTI .... COE ACCIPIAT CVM EIS OVI DOMINO DEO RECEDE A NOBIS. FIAT. $A)-(H)$-. An attempt to read or photograph the missing word(s) under ultra-violet light proved unsuccessful. About 16 -20 letters may have been errased, so [BENEDICTI FLORAACENSIIS may have been the original reading.
here: $\mathrm{I}(1-2)+$ III (3-8). A paper leaf has been inserted between I and 2 , where at least one folio is missing. Of fol. 7 the outer margin and most of he outer column has been cut away; of fol. 8 only a strip about one third of the original width remains; it was formerly pasted onto the binding. The order
of the folios is probably disturbed, as the contents of $2^{\mathrm{v}}-3^{\mathrm{r}}$ and $5^{v}-6^{r}$ seems to belong together.
The format is max. $320 \times 250 \mathrm{~mm}$ (written area ca. $250 \times 192 \mathrm{~mm}$ ); two columns (each $75-100 \mathrm{~mm}$ wide, widh $15-18 \mathrm{~mm}$ space in between); 32 or 33 lines to the page. In this short rragment a great many hands appear (seven
or eight ?), one or two of which still show uncial features ( $a, f, m$ ). The hand responsible for the runes uses open $g$, and $a$ consisting of two $c$ 's.
Contents (1):
fol. $x^{*}$ Fragmentum Synodi Romanae III sub Symmacho papa. an.501. Fragnentum epistulae Iustini imp. ad Hormisdam papam.
${ }^{2}$ Fragmentum commentarii Isidori Hisp. in Test. Vet. : in Levit. c. 21. Variorum conciliorum decreta de accusatione episcoporum, presbyterorum vel diaconorum
V .
computo et litteris numeros exprimentibus [with a runic alphabet] computo et litteris
${ }^{r}$ Civitates metropolitanae in provincis Gallicanis.
$4^{v}$ Nomina omnium provinciarum Romanorum
$6^{*}$ Divisio orbis terrarum Theodosiana.
$7^{*}$ [Fragnent of a poem in a clumsy hand:
in mense caamen lire resonemus
dens uirum inclitus cot de uoce ci modulemus almen, etc. On fol. 8 the same hand wrote ' maim.bertuse scric' and 'maim: bernae].
The first column of fol. $3^{v}$ contains the text of the Nicaean decree on the litterae formatae printed by L. Müller (2). This regula was normally followed by a Greek alphabet with the numerical value of the letters. In the Leyden manuscript the Greek alphabet is written in the middle of the second column of fol. $3^{\mathrm{v}}$; it is preceded, at the top of the column, by the runic alphabet. The runes are distributed over four lines: (1) $\mathbf{a}-\mathbf{g}$, (2) $\mathbf{h}-\mathbf{n}$, (3) $\boldsymbol{\alpha}-\mathbf{t}$, (4) $\mathbf{u}-\mathbf{z}$. The runes are apparently
(1) As given on a paper folio inserted at the beginning, with additions of my (1) As given on a paper foiio inserted at he beginning, with additions of my be found in the catalogue of 1716 (p. $3^{68}$ ).
(2) L. MOller, Versus Scoti cuiusdam de alphabeto. Rheinisches Museum $20(1865) ; 363 \mathrm{f}$. His text is based on our manuscript and on MS. Vossianus lat. Q. 33. Cf. also
C. Fabricrus, Die Litterae Formatae im Frühmittelalter. Archiv für Urundenforschung 9 (1926), 39-86, 168-194 (text on p. 39), and Dictiontaire d'archeologie chretienne et de liturgie IX, 2, x571-6 (text col. 1574 f.)
drawn by the same elegant, regular, somewhat sophisticated hand which wrote the regula and also the texts on fol. $4^{\mathrm{T}-\mathrm{v}}$ and part of $5^{\mathrm{r}}$. They are written on what seems to be an erasure. There probably is a connexion between this erasure and the fact that the Greek alphabet (which we expect in the place taken by the runes) is found only lower on the page. Above each rune its value is indicated by a letter of the alphabet.

The runes are carefully drawn; so carefully indeed that one is surprised to find a number of puzzling or distorted forms amongst them. Here follow the forms as given by the manuscript :


$$
\text { Fig. } 29
$$

The runes $a, b, i, 1, n$ and $r$ require no lengthy comment The use of the ac-rune for $a$ was obvious; it is also found in other alphabets. As is the case with the other five runes of this group, its form is very well preserved. The forms of the runes for $c$ and $d$ seem to imply that at some previous stage of this tradition the lower ends of these two runes had become invisible. The $d$ of our alphabet is of course the rune $\mathbf{p}$. In fact several other anomalies may also be due to a defective prototype. The rune which takes the place of $e$ might be the English $\times$ (eolhx), perhaps even ea. But further inspection shows that the original $f$ is not found elsewhere in the alphabet Therefore it will be safer to explain the $e$ of our alphabet as an f-rune (the vertical stem of which has been broken); it was then shifted one place forward. We can only guess why this change was introduced. It may have been because the alphabetizer interpreted the real $e$ as an $m$-rune; or else the $\mathbf{e}$ of the exemplar had become illegible owing to the same damage as
that which affected the shapes of $\mathbf{c}$ and $\mathbf{d}$. The explanation of $e$, however, is also closely connected with that of the following rune. In the place of $f$ we find a symbol which may be a Greek $\phi$, or else the English j. If the values have really been shifted one place to the right (by e being dropped), then this rune actually stands for $g$. This is hardly surprizing, since OE . spelling usually rendered / $\mathrm{j} /$ by $g(g e, g i)$. Thus a non-English cholar could easily be led to interpret this rune as a variant for $g$. This explanation is more probable than that which starts from Greek $\phi$ : St. Gall MS. 270 also gives $\mathfrak{j}$ as a variant for $g$, and the same is implied by the alphabet in Arsenal MS. 1169.

The symbol under $g$ goes back to the type of $g$ found in the sruna fuborc. The broken line which there reminded of an -rune has become a regular capital S . The occurrence of this type in a manuscript coming from a centre with obvious Irish connexions may be a precious hint: it supports the conclusions reached at the end of Chapter II. Instead of the $h$-rune we find a Roman capital $H$; a symbol which looks very much like $h$ will turn up under $z$, cf. infra. The monstrous formation which takes the place of $k$ seems to be derived from a form which is either the English $x$-rune, or a $k$ turned upside down; the latter is the more probable, but there is an additional difficulty : the same form turns up at the end of the alphabet with the value $y$. To start from an ON. k is hardly to be recommended, as there are no other traces of ON. influence. There is a third solution : in some alphabets we find a symbo for $q$ (e. g. in the De inventione alphabet) consisting of a vertica stem with a lateral stroke curving up to the left. This too could be at the origin of our $k$. On the whole, however, it will be safest to start from a $\mathbf{k}$ turned upside down, even if that same symbol is used for $y$, cf. infra.
The runes for $m$ and $d$ are often hard to distinguish, and in many instances we may be sure that the scribe did not know how to differentiate the two. In the Leyden alphabet they have changed places : the $d$-rune is found in the place of $m$ whilst the $m$-rune is found in that of $t$ (cf. infra). For $o$ we find the rare variety known from Oxford MS. St. John's Col
lege 17 and from the Thames scramasax. The form of $p$ is again puzzling : the vertical stroke is probably spurious, the rest may go back to a regular $p$-rune (cf. some forms of $p$ on p. 360). The $q$ is not unique in runic alphabets (cf. Vatican MS. Regin. 338), but it is certainly of non-runic origin. In all probability it was borrowed from the 'Chaldaeo-Assyrian alphabet found in several alphabet collections. Such collections were circulating in France; the occurrence of a ChaldaeoAssyrian $q$ in our alphabet has nothing surprising, if the Leyden manuscript actually originated in Fleury. The $s$ is the reverse of the normal form, but such a change is rather obvious. For $t$ we find the English d, with a spurious họrizontal stroke at the top. It implies that the alphabet passed through the hands of a High German intermediary. This cannot be an argument against the alphabet originating in Fleury, as Old High German may not have been unknown there (1). The symbol for $u$ may be a Roman capital $V$, or, less probably, a reversed $u$-rune The use of ea for $x$ is also found in the Oxford manuscript and in Vienna MS. 1761, but far more often this rune takes the place of $z$ (in the latter case a variant form of the $x$-rune takes the place of $x$ ). The choice of the regular $\mathbf{x}$ for $y$ was probably influenced by the similarity of that rune to a capital Y. It is found especially in those alphabets which have left their fuporc prototype a long way behind them. As to $z$, the only plausible explanation I can see is, that the $h$-rune was used to fill this gap; $h$ had in fact become superfluous when it was forced out by a Roman capital H.

Consequently the Leyden alphabet contains at least two and probably three letters of non-runic origin ( $h, q, u$ ); two are of uncertain origin ( $k, p$ ); two show a radical transfer $(\mathbf{h}>z$,
(1) W. Berz, Deutsch und Lateinisch, 100 : "Es mag sein, dasz Fleury, da Tochterkloster Clunys, das für die ags. Benediktinerreform so viel bedeutete, auch für die Ubermittlung der ahd. Wörter ins Ags. eine wichtige Roll gespielt hat. Denn Althochdeutsches gab es in Fleury sicher : Pa ( $=$ Parise Glossen) war vielleicht eine Zeitlang dort, die eine Handschrift des St. Emme ramer Gebets stammt aus Fleury, und die ahd. Gespräche kommen ebenfall aus Fleury, wie mir Dietrich Gerhardt mitteilte ". Contacts may also have existed at an earlier date; at any rate Fleury was much older than Cluny (which was founded in 9 ro).
ea $>x$ ), one or two accidental transfers ( $\mathbf{f}>e$; also $\mathbf{j}(g)>$ $f$ ); two more shifts are probably based on linguistic considerations $(\mathbf{b}>d, \mathbf{d}>t)$. It is quite possible that the alphabet in its present form has a long history behind it; that would explain the insertion of H and V , and the transfer of the $h$-rune to the last place, changes apparently due to a ' corrector'. With its many additions and shifts the Leyden alphabet may be termed a poor alphabetization. The symbol for $q$ indicates that the alphabet once belonged to a collection such as that of Vatican MS. Regin. 338. There are, however, no indications of a closer relationship between the Leyden and the Vatican runic alphabets; therefore their choice of the same $q$ may be a mere coincidence. It only indicates that the two alphabetizers had a similar collection of strange alphabets at hand, and that they borrowed the same type of $q$ from it. As the two manuscripts are supposed to have originated in France, such a coincidence is not altogether surprising.
3. Vienna, Nationalbibliothek, MS. 75 I (saec. IX med.).

This codex consists of several fairly contemporary manuscripts or parts of manuscripts. In the first of these we find a list of rune-names, but not the characters themselves. Only this first part will be examined in some detail; for the others the briefest mention will have to do, as their connexion with the first part is purely accidental ( I ).
( 1 ) Only the more important bibliographical items on this much studied nanuscript can be given here :
W. Grimm, Ueber deusche Runen, xo6; Zur Litteratur der Runen, $\mathrm{x}=K 7$ shifiten III, 85 .
Cotr A. Griss, Sancti Aldhelmi Opera. Oxford, 1844, 103 ff. $=$ J. P. Migne, Patr. Lat, LXXXIX, 299 ff
Berlin, 1866, 1 If ff, 244 Moguntina (Bibliotheca Rerum Germanicarum III). G. Stephens, Momuments III, x4, no. 84.
H. Harn, Forschungen zur deutschen Geschichte 15 (1875), 97 ff.; 22 (1881), 385 ff.
E. D0mmler, S. Bomifatii et Lulli Epistolac, in : Epistolae Merowingici et Karolini aevi I ( $=$ Mon. Germ. hist., Epist. III), $3^{83}$ ft.
W. Drekamp, Die Wiener Handschrift der Bonifatius-Briefe. Neues Arctiv 9 ( (883 $_{1}$ ), ${ }^{11-28 .}$
J. H. Gall.te, Altsaechsische Sprachdenkmaeler, 205 ff . and pl. VI.

Parchment binding of the 18 th century, with the imperial eagle stamped in gold on front and back: inscriptions ' E. A. B. C. V.' $(=$ Ex Augustissim Bibliotheca Caesarea Vindobonensi) and '17.G.L.B.V.S. B. 55 ' $(=\mathrm{Ge}-$ rardus Liber Baro Van Swieten Bibliothecarius r755). The codex consists of 188 folios; fols. 1-77 are well preserved, 78 -188 have suffered from moisture. E. Steinmeyer (1) distinguished six parts : $A=$ fols. $1-77 ; B=78-128$ $\mathrm{C}=129-162 ; \quad \mathrm{D}=163-166 ; \quad \mathrm{E}=167-172 ; \quad \mathrm{F}=173-188 . \quad \mathrm{A}$ consists of ten unmarked gatherings: 5 IV [1 uncounted folio + r-39] + IV ( -1 ) $[40-46]+3$ IV $[47-70]+$ III ( -1 ) $[7 \mathrm{x}-75]+2$ single leaves.
Format $300 \times 195 \mathrm{~mm}$; written area ca. $230 \times 140 \mathrm{~mm}$; one column, ${ }^{31}$ lines to the page ( $B: 29$ lines to the page, $C: 35$; the format also varie in the later parts : DEF $=270 \times 197 \mathrm{~mm}$, written area $203 \times 142 \mathrm{~mm}$ B has two columns to the page)
Contents (2) :
fol, $\mathbf{I}^{\mathbf{r}}$ Letters of Boniface and others (cf. infra).
$39^{v}$ int. al. a list of rune-names.
$78^{*}$ Acts of the Apostles; James; Peter I.
$129^{ }$Explanations of Biblical passages from Kings I. 23.3 to Acts 27, 17 with OHG. glosses.
$145^{\vee}$ Laterculus notarum, related to the notae Papianas et Einsidlenses (cf. p. 288 f.).
62 $2^{\text {r }}-12$ th, $13^{\text {th }}$ and $14^{\text {th }}$ apocryphal letters of St. Paul and Seneca.
$163^{\mathrm{r}}$ Augustine, Homilies.
$66^{v}$ A note on Willibert's election to the Archbishopric of Cologne (870)
${ }^{6} 7^{r}$ Theodulphus, Capitula ad presbyteros.
$73^{\text {r }}$ Brevis adnotatio capitulorum in quibus constitutiones conciliorum concordant.
187 A fragment of Bede's Martyrology.
188' OHG. charms.
Part A is one of three manuscripts containing important collections of Boniface's letters (the others : Munich MS. lat. 8112 and Karlsruhe MS. Rastatt 22). This collection has been examined at length by P. Jaffé, E. Dümmler, W. Diekamp,

[^8]H. Hahn, E. Ehwald and M. Tangl. According to this las author it was compiled in the following successive steps
(x) Collectio pontificia, the correspondence of Boniface and Popes Gregory II, Gregory III and Zacharias. The collection consists practically only of letters addressed to Boniface.
(2) Collectio communis, a first collection of letters not contained in the papal collection. After the death of Lull, Boniface's successor to the see of Mainz, many items were added to this collection. The rune-names are found immediately after the last item of this section.
(3) Collectio Lulli. About the middle of the ninth century, the compilator of the Vienna manuscript added 43 more letters, mostly relating to Lull, some also to Boniface. He probably copied these from originals or concepts in the Mainz archives ( 1 ).
Since the originals of a number of letters could only be found in Mainz, part A of our codex was probably written there,
possibly at the order of Hrabanus Maurus (archbishop of Mainz $847-856$ ). This agrees well with the date of the handwriting which is placed in the ninth century by G. H. Pertz, W. Diekamp, etc. Other authors have dated the codex in the tenth century, but judging from the handwriting, this must be considered too late.

The last item of the collectio communis had for some time been known as "Epistola anonymi ad sororem anonymam", when Hahn and Tangl showed that it was addressed by Lull to an abbess and a nun whose names are not given; it must be dated ca. $73^{8}$ (2). The letter closes on fol. $39^{v}$ (11. 19-22)
memo/res perenniter estote meique laboris sudori puris/simis orationum uestrarum precatibus fauere / suppliciter posco dignemini.
On l. 23 f. there follows a curious cryptogram : the palindrome
(1) M. Tancl, Studien zur Neuausgabe der Bonifatius-Briefe, 662 f.
(2) J. A. Gurs, Sancti Aldhelmi Opera, 103 ff., included this letter amongst ${ }^{\text {Runic }}$ Alphabet etc. Runic Alphabet, etc.
$\div$
$\qquad$

METRO HOC ANGIS SITIS SIGNA COHORTEM is written from left to right and immediately below again from right to left and upside down; moreover the letters of the first line have been connected with those of the second.
The names of the runes are given next (1.25 f.) On account of a hole in the parchment (there are four in this one folio) the name hagal had to be written ha-gal; there is a larger space between ilc $(=x)$ and $\operatorname{ian}(=y)$ for the same reason. Ll. 27-32 (the last in the lower margin) contain an example of a curious play with initials :

R R R rex romanorum ruit (above rex : 1 regnum).
p p p Pater patriae profectus est.
$f$ f f ferro frigore fame
m mm monitum monumentum mortuus est.
u u u uictor uitalis ueniet.
a a a aurum a nobis aufert ( 1 )
(1) This play reminds us somewhat of the devices invented by the grammarian Virgilius Maro, cf. G. Calder, Auraicept, xl ff. Calder, o. c., xdii compares Auraicepl $3501-3$ with the device explained by Virgilus, but those three line MS. 899 (p. 46) I came across the following instance, which STBINMEYER also found in Fulda MSS. Aa 2 and C is, and in Munich MS. lat. 14737 (Althochdeutsche Glossen IV, 436,6; 440,8; 457,6; 549,26 )

Tres habuit turris scriptas in fronte figuras
Quas modo diuerso vir farnulusque legunt
DMS.SSS.DDD.
Dominus dixit Domus mortui sepultu
Seruus dixit Domus magna senatorum
Dominus dixit Seruus Malus Damnetur
Seruus dixit Dominus Malus Sepelietur
Dominus dixit Seruus Serpens Satanas
Seruus dixit Dominus Demon Damnum
In Valenciennes MS. 4 II we find a series closely related to that in the Vienns manuscript:
V.V.
V.V.V. $=$ Venit Victor Vitalis
V.V.V.V. $=$ Vicit Viros Vestre Vibi
V.V.V $=$ Victor Venit Validus
A.A.A. $=$ Auferre Aurum Aroma ( $=$ a Roma)
A.A.A. $=$ Auferre Aurum Aroma ( $=$
R.R.R. $=$ Regnum Ruit Romanorum
R.R.R. $=$ Regnum Ruit Roman
F.F.F. $=$ Fame Ferro Frigore
F.F.F: $=$ Fame Ferro Frigore
P.P.P: $=$ Pater Patrie Profectus
R.R.R.R. $=$ Regale Regnum Romanorum Ruit.

In MS. 843 of the Valenciennes Library there is a similar version worked into a regular dialogue :

It is not possible to decide whether the exemplar copied by the compiler of Vienna MS. $75^{1}$ contained these nugae, or whether he added them from some other source. The latter explanation is rather tempting, since fol. $39^{v}$ is the last page of a quire; the few lines of space which were left blank after the letter was completed may have been thought fit for this sort of stopgap. On the other hand there is some proof that Boniface and his circle had a taste for cryptography. As we shall see, the tract De inventione litterarum states that Boniface himself introduced two types of secret writing into Germany (cf. p. 289). The Vienna manuscript contains several letters by Boniface and Lull with titles or subscriptions in a peculiar cryptic script (fols. $2^{\mathrm{v}}, 4^{\mathrm{r}-\mathrm{v}}, 39^{\mathrm{v}}$ ) ( I ). Since some authors have discovered runic elements in this script, a brief discussion must be devoted to it. Out of the various cryptograms the following alphabet may be reconstructed :

#  <br>  

Fic. 30
The runic character of $m$ and $u$ was not questioned by Tangl, who also referred to Diekamp's explanation of $t$ as a "Rune

Lucius Beda. L. Quid spectas Angliæ bos? B. Specto ruinam urbis vestre. L. Vides, sed non intelligis. B. Utrutn intelligam veni et audi. Et est. P.P.P.S.S.S.V.V.V.V.V.V.V.F.F.F.R.R.R.R.R.
Interpretatio. Pater patrie profectus est. Secum salus sublata est. Venit victor validus vincens vires urbis vestre. Ferro fuga farne. Regale regnum ruit. Romanorum Roma.
Cf. J. Mangenrt, Catalogue, 390, no. 393, and 629, no. 625. On a similar cryptogram in Ghent MS. 306, see p. 84.
(1) M. Tangl, Studien zur Neuausgabe der Bonifatius-Briefe, 723 ff. (with facsimiles).
'tyr '" ( r$)$. Several of the other letters are more or less certainly derived from a Greek alphabet : $c=k, e, l, r, s$; in the name Erkenchinde (fol. $39^{v}$ ) $c h$ is rendered by Greek $X$. For $d$ an English uncial may have served as a model. No satisfactory explanation has been offered for $a, b, n$ (unless $=$ Greek $v$ ); $p$ may be P without vertical stroke, $f$ looks rather like an insular $y$ and $g$ like A written upside down.
Let us now examine the characters which have been considered as runic. If, as is commonly assumed, this type of cryptography was used as early as 738 , this would imply that the $m$ and $t$ were borrowed before that date. But the Norse rune m was not created until the second half or rather the end of the eighth century (2), whilst the new $t$ (Diekamp's rune "tyr") is still younger. Therefore it will be safer to derive $t$ from some manuscript form of $t$, and $m$ from Greek $\Psi$.
On the other hand $u$ could be the $u$-rune. But in view of the non-runic character of the rest of the alphabet, there is at least as much chance that it is simply an inverted $V$, just as $g$ is an inverted $A$. More light on these questions could probably be obtained by the study of related scripts. As far as I know, the relationship between Boniface's cryptograms and an alphabet in Vatican MS. lat. 266 (fol. $\mathrm{I}^{\mathrm{r}}$ ) has never been pointed out (3). Yet, for all the differences between the Vienna script and that in the Vatican alphabet, there can be no doubt that they are derived from a common prototype ( $a c d e f g k l n r$ are practically identical). The Vatican alphabet has clearly non-runic characters for $m, t$ and $u$, and this may be another reason not to explain the Vienna varieties as runes.
Spurious alphabets going under the names 'Chaldaean', 'African ', 'Egyptian', etc. have been mentioned before in (1) M. Tangl, Studien zur Neuausgabe der Bonifatius-Briefe, 726 and footnote 2.
W. Diekamp, Die Wiener Handschrift der Bonifatius-Briefe, 15 ff. (on $t$ see p. 17).
(2) L. Jncossen - E. Molitkr, Runeindskrifter (Text), col. 1020 f.
(3) On the Vatican manuscript see J. H. Gaulke, Altsaechsische SprachCenkmaeler, 256 f., and pL. XID; cf. also
F. Durrach, Eitn westfausches Runenalphabet, mit Namen der Buchstaben,
G. Stgehrns, Monuments I, 114 (nos. 68, 69) and III, 9. 202
this study (p. 6, 18r) and we shall meet them again later on. The cryptic alphabet used by Boniface's circle seems to belong to the same category : $a b c d f g q r$ are quite similar to the corresponding letters of the 'African' alphabet in the Book of Ballymote and in Brit. Mus. Addit. MS. 4783; $m$ and $n$ closely resemble the 'Egyptian' $m$ and $n$ in the same manuscripts. The 'Gothic' alphabets of Cotton MS. Titus D 18 and Munich MS. 14436 also go back to the same prototype. What was said about similarities between Boniface's alphabet and Greek does not contradict these findings : some of the spurious alphabets may well contain Greek elements or even go back to varieties of the Greek alphabet.
The relationship with fictitious alphabets reduces the chances of runic ingredients to almost nil. At any rate we may safely examine the rune-names without taking account of the cryptic alphabet ( I ).

The rune-names are written in a hand contemporary with that of the preceding letter and very similar, if not identical (2); their reading offers no difficulties :
asc. berc. can. donr. ehu. feli. gip. ha//gal. is. ker. lagu. ${ }_{2}$ man. not. os. pert. quirun. rat. suigil. tac. ur. ilc. ian. zar. (3).
Two mistakes can be immediately corrected : donr is in all probability an error for dorn (4), and feli for feh. Seven of the rune-names have kept their OE. form and require no further comment : is lagu man os ur, and probably also berc and feh.
(1) The Vatican manuscript gives the names of the cryptic letters : alma, bina, calda, dotta, emera, faueta, $[] g.[$.$] s, heled, (i missing), ka cana, lida,$ mis, non, ota, ponta, quinon, vorot, sisso, tonta, uegon, ( $x$ missing; the name
began with s), yr, z\&da, et. These names have obviously nothing to do with began with s), $y r$, z\&\&da, et. These names have obviously nothing to do with
tune-names. To be sure, the name of $y$ is $y r=$ OE. $y r$, the name of $y$; but tune-names. To be sure, the name of $y$ is $y r=\mathrm{OE} . \boldsymbol{y r}$, the name of $\mathbf{y}$; but the 'Egyptian' $y$ was called yph and the 'Chaldaean' $y, y n$.
(2) It is rather difficult to compare the two hands: in copying the letter the scribe proceeded cursively, using numerous ligatures and separating the have been written letter by letter. (3) Cf O B Scurtren ALHer
(3) Cf. O. B. Schlutrer, Aldhelm's Runic Alphabet.
(4) O. B. Schlutter, Aldhelm's Runic Alphabet, reads dour $=$ docur $=$ dogur (i. e. OE. dogor?). Such a reconstruction complicates things unnecessarily: dogor never occurs as a tune-name.

The first three and the fifth may have had the same form in the scribe's Continental dialect, but this we cannot ascertain. The names asc and hagal are adapted to Continental Germanic phonology. In a number of cases the adaptation results in more important changes. The name of $e$, ehu, looks rather like the OS. equivalent of OE. eoh, eh (Heliand 388 : ehuscalcos). A number of names show decidedly OHG. features : gip is identical with the 2nd pers. sg. imperative of the verb giban, although one does not see why precisely this form should have been selected (1); the dentals in *dorn pert not rat and tac (2), the guttural in tac, perhaps also the labial in gip point to a High German origin. The same may be the true of ker. Two explanations are possible in this case : either the alphabetizer started from OE. gar, which, translated into OHG., gave ger, ker; or from OE. (WS.) gear, (non-WS.) ger; the latter form, which in OE. had initial $/ \mathrm{j} /$, was interpreted as beginning with a guttural stop, which then led to the German form ker. In abstracto the two solutions are equally probable. But since there is not one other instance where $\overline{\mathbf{g}}$ is used for $k$, whilst there are at least two more with similar names, one of which has the rune $\mathbf{j}$ (ker and $\mathbf{j}$ in Munich MS. 19410; cer in Phillipps MS. 3715), the second solution is by far the more probable. The name of $q$ looks at first quite puzzling. A name cweorn has sometimes been postulated for OE. (3), but that word is never found as a rune-name. As a matter of fact the OE. rune-name cweord, if it ever reached the Continent, did not mean more there than it meant to English scribes : by the side of such desperate solutions as qur (isruna fuporc) and quor (Munich MS. 14436) we find, more often, the name of the c-rune repeated, usually with another vowel. Only two alphabetizers tried to give a rational form : the compiler of Vienna MS. 75 I with his quirun ' hand mill, quern ', and that of Berne
(I) The form gip could perhaps go back to gif written with insular $f$; but no such form is recorded in other name-lists.
(2) O. B. ScmưTisR, Aldhelm's Runic Alphabet, emends tac to tuc to tiig? a quite superfluous detour.
(3) E. Survers-K. Brunner, Altenglische Grammatik, § zo5, note I.

MS. 207 with quello (p. 186) (1). The name of $c$ may be a mistake for cen, rather than be connected with the ON. name kaun (cf. caon in Munich MS. 14436, con in Oxford MS. St. John's College 17), as there are no other traces of Norse influence. On account of the early date of this list, $u i$ in the name suigil can hardly be explained as umlauted $u$, at least not from the point of view of OHG.; it may, however, be an OE. spelling for $/ \mathrm{y} /$. If so, it points to a very early date (first half of the eighth century) (2).
In our general survey of the problem of alphabetization we saw that the last two or three letters of the alphabet will often have caused hesitations, as the fuporc did not offer equivalents. The name ilc of Vienna MS. 75 I becomes clear when we compare it with the form ilcs in Vienna MS. 795 and ilix in Brussels MS. 93II-9319. The rune with this name had already received the value $x$ in English fuporcs. The loss of final $s$ will be due to an accident in the transmission. The form ian is rather perplexing. Two explanations are possible. We may either start from the name of $y, O E . y r$, archaic ${ }^{*}$ uir (cf. suigil); this could be misread as iur, and, in a context using open $a$, as iar; insular $r$ could easily be interpreted as $n$, hence ian. Or else ian may be derived from OE. iar, the name of $\bar{j}$. If we assume again that $i a r$ had a final insular $r$, a form ian is easily accounted for. In the absence of the corresponding runes, there is no way of deciding which of the two solutions is right. Considering the early date, the former may perhaps be favoured. As to zar, the explanation is not so difficult as it looks at first sight, if we think of $k e r$. The OE. rune-name gar appears as caar in Munich MSS. 14436 and 194ro, and in such a way that it seems to belong at the end of the alphabet; the gar-rune is actually found in the place of $z$ and with that value in Vatican MS. Regin. $33^{8}$ (there the name is gaar). There can be no doubt then that the 'superfluous' gar-rune was used for $z$ in some runic alphabets. This use may have been facilitated by linguistic considerations: OE. gar may first have been
(1) Therefore it is not necessary to reconstruct quirun $<$ quiruh $<$ quiruth $<$ (2) Sculutrig, Aldhelm's Runic Alphabet, proposes.
(2) E. Sievers-K. Brunner, Altenglische Grammatik, § 94 A.
changed to pseudo-HG. car (or caar), which could then be pronounced with initial $/ \mathbf{t} /=$ written $z(\mathrm{x})$. Unless the form $z a r$ is based upon OE. gar with insular $g$, which might perhaps have been interpreted as $z$, it supports the evolution gar $>$ car $>/$ tsar/. As far as the Vienna manuscript is concerned, no such detour is necessary. The OE. $\overline{\mathbf{g}}$ may simply have been chosen because it was the last rune (or one of the last) in the fuporc, its name then becoming zar through application of the acrostic principle. As the Vienna alphabet shows no direct connexion with the alphabets mentioned supra (and consequently with the names gaar and caar) it is safer to accept the latter explanation.
The monophthongs in the rune-names berc, feh and pert seem to point to a non-West-Saxon origin, whilst Boniface, Lull and most of their companions came from West-Saxon territory. This need not imply that this runic material cannot be connected with the missionary movement led by Boniface. For one thing, the early date of the prototype of this list may account for the absence of breaking. German influence may also have played a part. Therefore there can be no objection against the original of the list going back to Boniface's or Lull's times. ${ }^{[ }$Diekamp has pointed out that the additions to Lull's letter do not disagree with his character. On the other hand no Englishman can be held responsible for such forms as donr, feli, ian, or gip, ker, tac. Some of the alterations are no doubt due to a scribe of the Mainz archiepiscopal scriptorium or to the copyist. This and the absence of the runes should warn us not to value this material too high.
4. Munich, Bayerische Staatsbibliothek, Lat. MS. 19410 (saec. IX).
L. Rockinger defined this codex as " ein für den Unterricht
(1) Unfortunately OHG. grammars seem to consider the spelling $c=/$ ts/ as a ' mistake' except before e and $i$, and thus we have no accurate data as to its actual extension. Cf. W. Braunk, Althochdeutsche Grammatik, § 159, note 2 (p. 141).
in Klosterschulen bestimmtes Compendium " (1). Its contents is important from the point of view of cultural history, and therefore we must regret that it has not been examined as a whole more recently. The runes which it contains were known as early as W. Grimm's time, but seem never to have been studied in detail since (2).
The 34 folios are paged ' 1 ' - ' 67 '; the verso-side of p. 67 being blank, it has not been counted. The first folio was at one time pasted onto the binding. Format $220 \times 137 \mathrm{~mm}$ (written area $180 / 200 \times 105 / 110 \mathrm{~mm}$ ); 20-27 lines to the page. The manuscript is mostly written by one Bavarian hand (pp. r$60 ; 621.6 \mathrm{ff} ; 651.7-67$ ) about the middle of the 9 th century. It may have originated in Tegernsee (3)
Contents (4):
p. 1: Interrogationes in theologis, mixed with other matters (e. g. 22 : on the division of the letters into vowels and consonants, etc.) and
24, 32, 33, 36-38, 58-60: Latin-OHG. glosses.
39 : Carmen ad Deum, with OHG. translation.
41: Formulanum collectio.
51 : Latin poems.
58: A runic alphabet; Greek alphabets (cf. infra).
61 : Arno, Encyclica ad synodale colloquium in Rispah.
63 : Ephraem Syrus, Homily.
(1) L. Rockingrr, Drei Formelsammlungen aus der Zeit der Karolinger. Aus Handschriften mitgetheilt von ... (Quellen und Erörterungen zur bayerischen und deutschen Geschichte VII), 1858, 24.
(2) W. Grimm, Ueber deutsche Runen, 111 ff.
d., Zur Lilleraur der Runen, 24 f. K. Schriften III, 110 f.

Anzeiger für Kunde des deutschen Mittel iters I (1832), 27 f .
F. J. Lauth, Runen-fudark, 40 ff.
J. B. Silvestre, Paleographie wriverselle, IV, 87, PI. 231
K. MOllenhoff-W. Schrrer, Denkmäler II, 353 ff.
E. Steinmixikr-E. Sigvers, Althochdeutsche Glossen IV, 567 f
G. Baesecke, Abrogans, 36 .

Id., Bischof Arbeo von Freising. Beitrăge 68 (1945), 75-134 (esp. 113).
B. Bischorf, Schreibschulen, 155 f., 159, 163 f., 270 £. and plate Vc.
W. Schroder, Die Verwandtschaft der althochdeutschen Glossen su Gregors Homilien. Beitrage 65 (1942), 1-105 (esp. 93 ff.).
(3) B. Bischorf, Schreibschulen, 163 . The Munich catalogue bas "Teg. $1410 "$, but cf. E. Steinmeyer-E. Sisvzrs, Althochdeutsche Glossen IV, 567 : "Die alte Tegernseer signatur ist nicht mehr vorhanden ".
(4) L. Rockinger, Ueber drei Formelsammhungen aus dem neunten und zehnten Jahrhurdert in Handschriften Uer Staatshobliothek zu München. Gelehrte Anzeigen der k. bayerischen Akademie der Wissenschaften. München 1857, 461-477.

Catalogus II, 3, 242.
$\div$

65: Eio's epitaph.
66: Epitaph for the scribe Hrotrohe.
66: Epitaph for the scribe Hrotrohc.
On pp. 58-59 the runes occupy a peculiar position. On p. 58 there are, first, four lines of a text apparently intended for the study of vocabulary (Nimirum ut frabri fer'ra'rii moris est, etc.) The runic alphabet, which follows on Il. $5^{-6}$, is continued on the corresponding lines of p. $59: a-l$ on p. $58, m-y$ on p. 59; the names are written on 1.5 , the runes on 1.6 . Next come three Greek alphabets, the first of which gives the values of the letters, the last the names. They are also written across the two pages, but without having been carefully planned. After the $\Lambda$ of the first Greek alphabet come five forms of $\Sigma$ then $M, N, O$, etc. The final symbol $\uparrow$ (' 1000 ') is followed by M, i. e. the Roman numeral ' 1000 ', and $E$. On p. 59 the scribe tried to crowd in the second alphabet on one line, but with $X$ he ran out of space and therefore wrote the remaining three symbols on p. 58 (1). The runic alphabet; too, contains a striking anomaly :
ag. cär.beric.cen.dai.eh.feh.geuo.heíh. is ker.lago $\beta \cdot B \cdot h \cdot A \cdot M \% \cdot X \cdot A \cdot 1 \cdot \phi \cdot F$
man.n\&.os.perd.cen.rat.sil.tir ur.elcod.uyr $A \cdot X \cdot F \cdot N \cdot h \cdot R \cdot Y T A \cdot X \cdot A \cdot \lambda$ Fig. ${ }^{1}$
A name $c a(a) \mathrm{r}$ has been inserted after $a$, where it has apparently nothing to do; on the other hand the name of $z$ seems to be missing. The scribe must have misunderstood his exemplar. In the latter $c a(a) r$ was probably the name of $z$, the suprascript $a$ being a correction (car $>$ caar). The scribe of the Munich manuscript mistook the suprascript $a$ for an indicator of the value, and therefore inserted the name between those of $a$ and $b$. This gave him twelve names for the eleven runes on p. 58 ; on p. 59 the situation was exactly reversed. The
(1) In the Greek material we find a HG. interpretation : K : ‘procet $h$ '. 208
arrangement of the names on p. 58 shows clearly that the second name is an intruder; but from p. 59 it does not appear whether the scribe was aware of the discrepancy at the end of the alphabet.
$a$ : the rune is the $a$-rune; the form of the name, with final $g$ for $/ k /$, points to a region where voiced and voiceless guttural stops could be confused, i. e. probably High German tertitory (1). The same form occurs in Phillipps MS. 3715 .
(z) : the name must probably be read caar, an adaptation of OE. gār (2). I have proposed to explain caar as the name of $z$ in the scribe's exemplar. There are further arguments for doing so. The $\bar{g}$-rune, with the name gaar and the value $z$, takes the place of $z$ in the runic alphabet of Vat. MS. Regin. 338. Holthausen and Schlutter (3) imply that OE. gaar was misread as zaar (the insular $g$ is in fact not very different from some types of minuscule $z$ ), which would explain this use. But in the Vatican alphabet gaar is written with the same $g$ as daeg, geos (i. e. geof), hegil, lago, sigil, a $g$ which is quite different from the $z$ used in the same manuscript. This is also the place to remember zar in Vienna MS. 751, which might be quoted as the missing link. As a matter of fact two explanations are possible : either OE. gar became OHG. car, which was then adapted according to the acrostic principle and became zar. Or else OHG. car (whatever meaning the scribe may have given to this word, if any) may have been pronounced /tsar/, as $c$ may have the value of an affricate (normally only before $e$ and $i$, but occasionally before other vowels too). With the more current spelling $z$, this would have become zar, and thus the name would have fitted the acrostic principle. The former solution is
(1) E. g. J. Schatz, Altbainsche Grammatik, $\$ 73$. F. J. Lauth, Runen fudark, 40 ff., points out that $g$ is found for $c$ in other instances, e. g. legem saligam (p. 50 ).
(2) W. Grimm, Ueber deutsche Runen, 112, read agcar as one word; in Zur Litteratur der Rumen, $\mathbf{z 6}=$ Kl. Schriften II , 1 io he proposed to read ag, ear. . Hocthausen, Altenglische Runennamen. Archiv 99 (1897), 425 O. B. Schlutrer, Aldhelm's Runic Alphabet.
preferable because it is simpler. In that case the rune $\overline{\mathbf{g}}$ will have taken the place of $z$. because it was not needed elsewhere, perhaps also because it came at the end of the fuporc. But here we come to another difficulty : among the runic forms of Munich MS. 19410 there is no $\overline{\mathbf{g}}$; $\mathbf{k}$ takes the place of $z$. So we must assume that to fill that place the form of one rune was combined with the name of another. Actually this will be found to have happened in other alphabets as well, especially in the De inventione alphabet (p. 372).
$b$ : the name beric is an OE. form with secondary -i-, cf. -berig for berg (WS. beorg) on the Franks casket (I).
$d$ : in the name of the rune final $-g$ has been palatalized to $\mathrm{j} /$. This change is typical of Kent, but there $-i$ seems to be the usual spelling of the resulting diphthong. The spelling $a i$ is found in later Northumbrian (maiden etc. in the Lindisfarne Gospels) (2). Our alphabet has ei in another instance (cf. under $h$ ).
$e, f$ : the forms $e h$ and $f e h$ with 'levelling' point to an Anglian prototype.
$g:$ in the name, $-\mu$-(i. e. $/ v /$ ) was probably substituted on the Continent for the OE. spelling with $-f-$; in OE. texts $u$ or $v$ with this value occur only from the inth century on, whilst in OHG. it is a current spelling (3).
$h$ : the name of the $h$-rune presents an obvious mistake : the final $h$ stands for $l$, heil being a palatalized form of $\operatorname{heg}(i) l$. (4) Cf. under $d$ and $s$.
$k$ : the alphabetizer here depended on a form which had already been 'translated ' into OHG. The transfer is in
(1) E. Sievers-K. Brunner, Altenglische Grammatik, $\$ 164$.
(2) E. SEvvers-K. Brunner, Altenglische Grammatik, $\$ 126$ A. 3 declrre early $\begin{gathered}\text { i-spellings in } \\ \text { Northern texts (the Durham Liber Vitac) ' Latinizations' }\end{gathered}$ is there any proof that such spellings were not possible in contemporary OE. Cf. E. Krusinges's review mentioned on p. 184
(3) W. Brauns, Althochdeutsche Grommatik, § 137.
(4) The Munich manuscript being very early, this phenomenon can hardly be explained as OH.; BeNNe, Althochdeutsche Grammatiz, § 149 A. $5^{2}$. 210
fact rather a complex one. OE. /jêr/ was spelled ger, which a German must have understood as OHG. ger, Upper German ker 'spear' (which in fact corresponds to OE. gar). Once the name of the rune had received this Upper German garb, the rune could take the place of $k$ in agreement with the acrostic principle.
$n$ : the name net is a partial adaptation of OE. ned, Upper German having no final $-d$; cf. also rat : OE. rad.
$p$ : the adaptation of the names to Continental phonology was not carried through uniformly: instead of perd we should expect pert, a form actually found in other alphabets.
$q$ : to fill the place of this letter the alphabetizer simply repeated $\mathbf{c}$ and the name cen.
$r$ : cf. $n$.
$s$ : the name sil results from the palatalization of $g$ in OE. sigil or sigel, with subsequent contraction (1).
$x$ : this form of $x$ is known only from Continental manuscripts (St. Gall MS. 878, Munich MS. 14436 , etc.). The name probably contains an error : Munich MS. I4436, which, as * we shall see, is related with this manuscript, has elx. But $-x$ would not easily become $-c d$. Perhaps we may reconstruct the evolution as follows: for OE. eolh(s) the OHG. form elah was substituted; written with open $a$, final $a h$ was then misread as $-c d$ (for $-d$, cf. the confusion of $-h$ and $-l$ in heih).
$y$ : uyr seems to be one of the numerous Continental attempts to render OE. $y r$; neither OE. nor OHG. spelling habits satisfactorily explain this form.
$z$ : on the name of this rune cf. supra $(z)$. But if we agree to accept $c a(a) r$ as the name of this rune, a new difficulty arises : the rune which takes the place of $z$ is not $\overline{\mathbf{g}}$ but $\mathbf{k}$. Only the basic fuporc would enable us to find out how the alphabetizer proceeded. As we saw under $k$ and $x$, some confusion seems to have crept in. Perhaps the $\bar{j}$-rune

[^9] Altenghiche Grammatik, § 254,4 .
with lengthened cross-strokes was chosen for $x$ on account of its resemblance to Roman X. This left the regular $x$-rune unused. It must then have been mixed up with the calc-rune, the result being that the form which corresponds to the latter took the place of $z$.
The other runes require no comment : the $c$-rune takes the place both of $c$ and $q$ (in spite of the acrostic principle); is, lago, man, os, tir, ur are taken over without any change.

There can be no doubt that this alphabet originated in the Upper German area; this agrees well with the location of the scriptorium in which the manuscript is supposed to have been written : Tegernsee. In fact the adaption to OHG. phonology is very superficial : no real translations are found, and only one rune has changed its place as a result of an adaptation $(j>k)$. Even such simple cases as beric and heil, which would not have upset the order of the alphabet, were left untouched.

The underlying fuporc must have come from Anglian territory rather than from Kent. The use of what is formally $\mathbf{j}$ for $\boldsymbol{x}$ connects our alphabet with the fuporc in St. Gall MS. 878 and with the last alphabet of Exeter MS. 3507, etc., as well as with Munich MS. 14436; with the latter and with Vatican MS. Regin. $33^{8}$ it probably shares the name of $\overline{\mathbf{g}}$ for $\boldsymbol{z}$.

## 5. London, British Museum, Harley MS. 3017 (saec. IX).

J. M. Kemble first edited the runes in this codex (x). The problems which they raise are similar to those met with in the Leyden manuscript we discussed on p. 192 : here too the runes seem to have been included because the compiler somehow connected them with the Greek alphabet, and that Greek alphabet belonged to the regula formatarum.
Red leather binding, gold tooling, with inscriptions on the back : MISCELLANEA / DE COMPUTO, / ETC. / BRIT.MUS./ HARLEY MS. / 3017 . On the front end-paper and fly-leaf various older press-marks; on fol. $\mathrm{x}^{\mathrm{r}}: 13$ die mensis Augusti / A.D. 1724. Parchment of varying quality, usually rather
(1) J. M. Kemble, Anglo-Saxon Rures, p. 339 and Plate XVI, fig. 10.
coarse and greasy. The codex was gathered over some length of time; it consists of 190 folios, mainly arranged in quaternions
${ }_{3}$ TV $[\mathrm{x}-24]+\mathrm{IV}(+1)[25-33]+19$ IV $[34-185]+5$ single fols. 3 IV [x-24] + IV $(+1)[25-33]+1910$
mounted on parchment guards [186-190]
The quires are marked 'I' to 'XXIIII'; there is an error in the numbering after 'VIIII', or else one quire is missing.
Format $215 \times 160 \mathrm{~mm}$ (written area ca. $145 \times 112 \mathrm{~mm}$ ); ca. 20 lines to the page; two columns on fol. 1 . The manuscript was probably written in Fleury. A great many hands contributed to it, most of them belonging to the ninth century. Laistner dated the codex A.D. $86 \mathrm{r}-4$, but Jones claims an earlier date : 817 ( r ). The quire which contains the runes is made up of two ruled leaves $(58 / 65,59 / 64$ ) and two unruled leaves ( $60 / 63,61 / 62$ ); these have only $16-17$ II. of text. Part of the quire must have remained blank for than the rest of the coder, some formulae on fol 6x ff point to the year 920 (2) than the coder, some formule Contents: (3)
fol. $\mathbf{x}^{\boldsymbol{r}}$ : Omnium faustorum \& infaustorum catalogi fragmentum.
$2^{\text {r }}$ : "Incipit computatio Grecorum seu Latinorum; primitus vero dicitur de mensibus". Sequuntur Calendarium, computationesque ecclesiatibus astronomicx.
$52^{\text {² }}$ : De ltineribus et mensuris agrorum.
$5^{\text {r }}$
$55^{\text {r }}$ : Argumentum beati Theophyli de epacta.
$5^{8^{x}}$ : Ratio sphere Pythagore philosophi quam Apuleius descripsit.
58": Ejusdem lunarium de ægris. Lunarium Sancti Daniel de nativitate : Ejusdem
infantum.
$59^{\mathrm{r}}$ : De diebus Egyptiacis qui mali dicti sunt in anni circulo.
$6 \mathrm{a}^{\mathrm{F}}$ : Alphbetum literarum Grxarum cum notis numeralibus, inter quas habentur Runice quædam. .[Litterae formatae]
$6_{1}{ }^{\circ}$ : Miscellanea ad Calendarium pertinentia.
$63^{r}$ : Sigua quee ostendit Deus Esdre prophetr.
$66^{x}$ : De numero annorum ab origine mundi usque ad adventum Christi.
$68^{\mathrm{r}}$ : De 7 sideribus errantibus, Zodiaco, januis cexli, planetis, \&c.
88r: Horologium.
$92^{v}$ : De positione 7 stellarum errantium.
$97^{*}$ : De aere, tonitru, fulminibus, \& ventis.
106 ${ }^{\text {r }}$ : De 4 Anni termporibus, Ex Isidoro.
${ }_{11} 6^{\mathrm{r}}$ : De compotu vel loquela digitorum.
110 ${ }^{r}$ : De saltu lune
(1) C. W. Jones, Bedae Pseudepigrapha, x22;
M. L. W. Laistner, Thought and Letters, 189, note 3.
(z) Hence the date in the catalogue : ... scriptus, ut ex fine miscellaneorum ad calendarium pertinentium apparet, A.D. 920 .
(3) Catalogue II, 725;
C. W. Jones, Bedae Opera de Temporibus, 126 (note 3), 152, 165, 330, 332,

352, $365,369,372,375$ f., 386.
f ninth-ae Pseudepigrapha, 122, defines the codex as " an excellent example of ninth-century Fleury computi".

119*: De cursu \& eclipsi solis.
$126^{\circ}$ : Ordo \& nomina ventorum.
129r: Ratio de tonitruo, de arcu, de æstu oceani, de circulis terre \& divisione sua.
$37^{\mathrm{r}}$ : de cursu \& magnitudine solis.
$143^{r}$ : de 4 Anni temporibus.
$150^{\circ}:$ De fulminibus.
150\%: Cur mare non crescit.
$151^{r}$ : De Nilo.
151. : De literarum Grecarum potestate
$152^{r}$ : Numeri per quos potest qui voluerit alterius cogitationes de numero quolibet quem animo conceperit explorare.
154 ${ }^{\text {r }}$ : De quantitate solis \& luna
55 ${ }^{\text {² }}$ : De lumine $\&$ cursu luns
$63_{3}{ }^{\mathrm{r}}$. De Nive. De astrorum. De Arcturo
$63^{r}$ : De Nive. De signis tempestatis vel serenitatis.
164 ${ }^{2}$ : De terre motu.
$165^{v}$ : De opactis [sic] lunaribus.
168* : De temporibus, horis, \& momentis. Ex Isidoro
$168^{\circ}$ : De temporibus, horis, \& momentis. Ex Isid
$169^{\mathrm{r}}$ : De die et nocte. De Hebdomada, \& mense.
170r: De solstitio.
170v: De temporibus, \& annis.
${ }^{1711^{r}}$ : De bisexto.
$72^{v}$ : De arithmetica.
${ }^{178^{8}}$ : De inventoribus Geometrice, $\&$ vocabulo ejus.
180v: Note musicales.
81I: De ponderibus.
$8 \mathrm{I}^{\mathrm{r}}$ : Confiteor.
$\mathbf{8 2}^{2}$ : De generibus atomorum. Etymologica quedam de puncto \&s minuto, ex Isidoro.
$83^{r}$ : De inventione horologii \& quadrantis.
$83^{\text {v }}$ : De diebus, \& quomodo apud Christianos nominantur
$85^{7}$ : Nomina mensium apud Hebreos. Ad sciendum cyclum solis. 186": De signis (Zodiacis.)
188: De XII. generibus annorum.
189v: Ad embolismum inveniendum.
The text on the dies aegyptiaci ends on fol. 60 ${ }^{\circ}$; it is followed by a letter of commendation (litterae formatae) addressed to one bishop Accus (or Acco) (i). Since it contains no other proper
(x) Inc. Incomparabiliter et ineffabiliter amando fratri Acco episcopo ill satis in ecclesiasticis negotiis uigilanti N perpetue felicitatis in Domino saluator obtat salutem. Expl. Insuper uero adulterinis decolorationibus reiectis was a bishop. Acca in the arly eighth letter points rather to a later date. eighth century (Hexham 70-731), but th
names, but refers to other persons, etc. by $N=$ nomen etc., or $i l l=i l l e$, etc., it must have been intended as a model, a regula formatarum explained by an example. On fol. $6 \mathrm{r}^{\mathrm{r}}$ we find:
(a) a Greek alphabet with the names of the letters;
(b) a Greek alphabet, rearranged in the order of the Latin alphabet ( $X=c, H=e, \Theta=t, \Omega=a, O=u$ ).
(c) without any transition there now follows a runic alphabet without values nor names; the first two runes are on one line with $N-Z$ of the preceding Greek alphabet; the remaining runes fill two lines $(c-n, o-z)$. At the end of the alphabet there are three dots placed in a vertical line; a similar device for marking off is found after the first Greek alphabet (a). But there is nothing to show that the scribe was aware of the fact that (b) and (c) are two different alphabets.
(d) a Greek alphabet, with above each letter its numerical value. This is the alphabet which normally belongs to the regula formatarum : in drawing up a letter of commendation, the writer inserted in it various Greek numerals and at the end the sum of these numerals, to prevent forgeries.
To judge from the form of some runes ( $g, m$ ), the author cannot have had any first-hand knowledge of the runes. He copied them rather carefully, though, but without betraying any understanding. The height of the runes varies between 4 and 9 mm .

Thirteen runes call for no comment, viz. those for $a(=a)$, $b, f, h, i, l, n, o(=0), p, r, s, t, u$.
$c$ for this rune we find the rather rare type with a straight lateral stroke.
$d$ : although the rune is drawn somewhat awry, the original type with low intersecting strokes can still be recognised.
$e$ : the form of this rune is clearly influenced by a Roman capital M.
$g$ : the awkward form given here can only go back to a $j$-rune. The basis for assigning the value $g$ to it must of course lie in OE. spelling : $g$ was the current spelling device for $/ \mathrm{j} /$ (whatever the exact phonetic value of this sound may have been).
$k$ : the form we find for $k$ is either $x$, or $k$ turned upside down. On the other hand the $x$ is rather like a not very successful attempt at $k$. It rather looks as if the two runes had been mixed up. A similar confusion is found in Cotton MS. Domitian A 9 (scribe B); cf. also $z$ in Munich MS. 19410 and $q$ in Arsenal MS. ri6g.
$m$ : from the form of this rune we may perhaps infer that the exemplar from which the scribe copied was in a poor state.
$q$ : somewhat similar $q$ 's are found in Munich MS. 14436 ('Arabic alphabet') and in Oxford MS. St. John's College 17. It is probably derived from $p$, and may represent an intermediate stage between that rune and the $q$ we found in some fuporcs. The fully developed form of the latter may never have reached the Continent.
$x$ : cf. under $k$.
$y$ : the $m$-like subscript is probably the scribe's fanciful interpretation of a subscript $y$ in the original; cf. $y$ in St . Gall MS. 878 etc.
$z$ : will be derived from a Roman $Z$ rather than from 3 .
On the whole the alphabetization is quite straightforward. Apart from $k$ and $x$ (the confusion of which may go back to a faulty fuporc, cf. Domitian A 9 as 'corrected' by scribe B) the procedure raises no problems. The difficulty of providing a symbol for $z$ has been got round with little effort. There are no traces of Continental influence; the alphabetizer seems 216
to have worked directly from an OE. fuporc, which retained some archaic features ( $u$, open $r$ ). If we may really consider this alphabet as Fleury work - and I did not find any evidence as to the contrary-we have here a good proof of the widespread interest the runes enjoyed in the ninth century, and at the same time another indication of the part that abbey may have played in transmitting and preserving runic material (cf. Berne MS. 207 and Leyden MS. Voss. lat. F. 12 ) . As the alphabet is only a copy, it would be interesting to know where the original was written. Perhaps the litterae formatae might enable us to settle that question; but as far as I know this brief text has never been studied. Finally it is worth while noting the surroundings of the runic alphabet : this is the third time we find it together with litterae formatae (cf. Salzburg MS. a IX 32, Leyden MS. Voss. lat. F. 12 8); the dies aegyptiaci, ratio spherae Pythagorae, etc. will also be met in the neighbourhood of runes in other manuscripts.

$$
\text { 6. St. Gall MS. } 270 \text {. }
$$

On this manuscript cf. p. 90 ff .
The runic alphabet which is found immediately after the fupore is not merely an alphabetization of this fuporc. With the latter it disagrees on a couple of important points :
$a \quad a b c d d$
ef
g g g
ikl NNBKPPME K 中HNIJN
$m \cap$ o o ppiqrss $t$ t $u \times z$

$a$ : both a and $\boldsymbol{x}$ are given this value; in the fuporc the former had the value $a a$.
$d$ : the first $d$ is $\mathbf{p}$ (cf. $d$, dorn in the fuporc); the second is $\mathbf{w}$, which, notwithstanding the value $u u$ in the fuporc, was
confused with $\mathbf{p}$ on account of the similarity of the forms. Perhaps the alphabetizer relied on the form because from the point of view of the acrostic principle he found a contradiction between the value and the name (uu: huun).
$g$ : to the two $g$ 's of the fuporc (i. e. the special $g$, and $\mathbf{j}$ ) the alphabetizer has added a variant form of $\mathbf{g}$; it differs from the first $\mathbf{g}$ in exactly the same way as the two $s$-runes differ, i. e. the middle parts of the broken lines are at a different angle
$k$ : in this case the alphabetizer relied on the value $(k)$ rather than on the name (ih), and for obvious reasons : he had two other runes which could take the place of $i$ (iis, inc).
$p, q$ : here we come to the most important difference. The first $p$ of the alphabet has the value $q$ (and the name $y u r$ ) in the fuporc; the second is identical with $p$ in the fuporc. On the other hand the alphabet has an entirely new $q$. On this point, consequently, the alphabetizer corrected the fuporc. It is rather hard to believe that he did so led by his own knowledge of the runes : his way, of confusing $\mathbf{b}$ and $\mathbf{w}$ shows that he cannot have been a very proficient runologist. He may have known about the $p$-rune from some other runic alphabet; if so, he probably borrowed his $q$ from the same source. His $q$ is typical of the De inventione alphabet. That the isruna tradition and the De inventione tradition occasionally met is clearly demonstrated by Vatican MS. Urbin. 290 and Munich MS 14436, q. v.
$s$ : cf. under $g$.
$t:$ in agreement with the shift of values in the fuporc ( $\mathrm{d}>t$, $d x g>t a c$ ) the alphabetizer lists two $t$ 's : $\mathbf{t}$ and $\mathbf{d}$.
$(y):$ in the alphabet the equivalent of Lat. $y$ is missing. Two runes could have filled its place : either $\mathfrak{y}$, which plays that part e. g. in Munich MS. 14436 (also related with the isruna group) and in Arsenal MS. at69; or else the $q$-rune of the fuporc, on account of its name $y$ ur. It is not impossible that $\eta$ originally took the place of $y$ in this alphabet,
but was afterwards dropped for one reason or other : it is the only rune of the fuporc missing in the alphabet.
$z:$ in this case, as with $k$, the scribe depended on the value of the rune ( $z$ ) rather than on the name (aer).
Among the runic alphabets there are only very few which also assign a place to the 'superfluous' runes of the fuporc (cf. Oxford MS. St. John's College 17). The scholar responsible for the St. Gall alphabet obviously used the preceding fuporc, but may have had another source for reference by the side (a De inventione alphabet?). The St. Gall alphabet did probably not belong to the isruna tradition for a long time : it is not found in any other manuscript of the group; the runic alphabet in Munich MS. 14436, which is also derived from an isruna fuporc, shows a completely different structure.
7. Exeter, Cathedral Library, MS. 3507 (saec. X).
8. London, British Museum, Cotton MS. Vitellius A 12 (saec. $\mathrm{XI}^{2} / \mathrm{XII}^{2}$ ).
9. Phillipps MS. 3755 (saec. XII ?).

The first two of these manuscripts are so closely related that the second has been considered a partial copy of the first. The third shows no such close relationship with the first two, except in its runic material. Therefore the runes of these three manuscripts will be discussed together.
Exeter MS. 3507 has connexions with Salisbury and Sherborne; it was probably written in the same scriptorium as the Sherborne pontifical (Paris, Bibliothèque Nationale, MS. lat. 943 ) ( I ), and perhaps a witness of the reform movement of the
(1) N. R. Krr, Salisbury Cathedral Manuscripts and Patrick Young's Catalogue. The Wiltshire Archroological and Natural History Magazine 53 (9949) 156, note 2. On the Paris manuscript see: :
R. Brotansk, Texte und Unterschungen sur altenglischen Literatur und Kirchengeschichte. Halle, 1913, I -29, 33-149.
M. Fôstre, Die aitenglischen Texte der Pariser Nationalibibiothek. E. St. 62 ( $1927 / 288$ ), 113 - $137^{\circ}$ (esp. $116-129$ ).

Bibliotheque Nationale. Catalogue enereal des mamuscrits latins. 1,$1949 ; 335 \mathrm{f}$
tenth century. Its runic alphabets were known to Wanley and Hickes ( I ).
Brown leather binding; on the back COD. ECCLESI. EXON. stamped in gold. On the front end-paper old pressmarks ( $\mathrm{N}:^{0}{ }^{2} ; \mathrm{N}^{0} \mathbf{2 5}$ ), an ex-libris CATHE: $\mathrm{C}^{\mathrm{h}}$ Library. $\mathrm{S}^{\mathrm{t}}$ : PETER'S EXON $\dagger$ Anno $\mathrm{D} \mathrm{E}^{\mathrm{nf}} 1749$ ) and bibliographical notes (2), which are continued on the first paper fly-leaf (3); on the latter the present number ' 3507 ' and : DEC: ET:CAP:EXON. The verso side, and the second and third paper fly-leaves are blank. The

 m' $\left(95^{\circ}\right.$ ); the last quire is incomplete: IV (-1) $[\mathrm{I}-7]+11$ IV +2 fols. first quire, the parchment of which has become rotten. Repaipecially the made and as a result the order of some folios was disturbed ( $\mathrm{a}^{\text {: }}$ : "misplaced
 century hand). In fact the order should be $x, 3,2,5,4,6,7$. One (the first, blank?) folio seems to be missing. On the whole the parchment is white or faint yellowish, some pages slightly stained; the surface is rather rough. Fornat ca. $315 \times 195 \mathrm{~mm}$, written area $228 \times 148$ (without double ruling left and right $228 \times 132$ ) mm; mostly two columns, 29 lines to the column. The text was written by one scribe, probably in the second half of the tenth century. Glosses by several hands, int. al. two OE. glosses on $98^{v}$ : Luligines i. merespin (i. e. mereswin); delphini i. simones 1 seolas.
(1) H. Wanley, Catalogus, 28 I: "Hrabani Mauri de Computo exemplar probè ante 700 annos exaratum, in quo habentur Alphabeta quedam $\&$ voces nonnulle Latine G. Hickes, Thesauru
G. Hickes, Thesourus, Grammaticae Islandicae Rudimenta, p. 4 : " Tabella (5) ad dilectum fratrem Macharium, qui in Manu Saboni Mauri, de computo codicis usum acceptum gratus refero reverendo doctissimoque viro natalibus, ingenio, \& humanitate preclaro, Ricardo Amnesly dignissimo Decano, \& reverendis fratribus Canonicis Ecclesiz Cathedr. Exoniensis, \&\& Leofrici fundatoris maximis ornamentis, qui pro suo in antiquas literas amore, ex archivis ecclesia veterum membranorum quicquid ibi Saxonice scriptum esset, in usum nostrum, rogati faciles miserunt "; tabella II, no. 5 .
(2) Hrabani Mauri de computo exemplar probè ante 700 annos / exaratum, in quo habentur Alphabeta quedame voces nonnullw/ Latina Litteris Rumicis scriptax. vide Grammaticx Islandicel. paginam quartam Go Tabellam quartam sequentem in Tomo Cl. Hickesii, to which another hand added : Accedit Isidorus Hispalensis Episc: de Natura Rerum / aum Schematibus et Figuris, a Clariss: and a third : NB. 97 Folia et No1. Anglo-sax!. Ecclesiz/ Exomiensis omissus, ne no doubt that Wanley knew the manuscript as the firt noter. There can no doubt that Wanley knew (3) Balurius edidit in his Catalogus.

Librum ex Vetere Mss. / vid. Miscellaneorum Lib. $S^{m}$

Contents ( 1 )
fol. $1^{\text {r }}$ Incipit prologus hrabani peritissimi uiri / DILECTO FRATR MACHARIO / monacho hrabanus peccator in Christo / saluter. explicit prologus / Incipiunt kapitula libri sequentis (cont. $3^{r-v}$ ) ${ }^{2}$ Incipit ipse liber hrabani de compoto/ QVIA TE VENERANDE / PRECEPTOR SEPE AVDIUI / de numeris disputantem, etc. = Hrabanus Maurus, De compruto.
$57^{r}$ De zetatibus.
$58^{\mathrm{r}}$ A number of short computistical items : Versus de duodecim men sibus anni; Tetrasticon autenticon de singulis mensibus; Versus
de singulis mensibus; Versus de singulis mensibus et signis; Versus de duodecim mensibus; Versus de cursu anni; De octo tramitibus circuli decennovalis; Versus de septem dierum vocabulis De septem miraculis manu factis; Duo sunt extremi vertices mundi, etc.; De diebus egyptiacis; Ordo librorum catholicorum in circulo anni legendorum.
$64^{\vee}$ (no title) On pronunciation (ultimately from Martianus Capella)
$65^{\circ}$ a Greek alphabet, with the names of the letters and their meaning in one column : $A$ alfa . agricola, etc.; a Hebrew alphabet, also with the names of the letters and their meanings : $\boldsymbol{X}$ aleph, mererpretatur doctrina, etc.;
$65^{\circ}$ a Greek alphabet, with the Greek numerals and the values in Roman figures : $A$ mia .I., $B$ dia .II., till $\Psi$ niacusin DCCCC.; the Greek numerals for ' 1000 ' to ' 10000 ' (' 3000 ' omitted) : Chile - Myre. Christus.xpps; a list of Greek letter names, including those of the nuChistus xpss; a list of Greek letter names,
66* Three runic alphabets (cf. infra).
$66^{v}$ De concurrentibus; de sex ætatibus nominis (= hominis),
$67^{7}$ Incipit liber isidoris psalensis episcopi de natura rerum. DOMINO ET FILIO SISEBVTO / esidorus salutem, etc.
$67^{*}$ explicit prefatio. Incipiunt capitulationes. On fol. 68r, II. $1-3$ (same hand) : Alii autem prologum cuius initium tu fortem locu/ entis uaga carmina gignis in hunc locum introdu/cunt. Alii autem isidori esse respuunt Sed gilde.
Isidore of Sevilla, De natura rerum. The end is now missing, but was there originally, as a note on fol. $76^{x}$ (lower left) shows : "Isdem circulus / in fine huius / libelli alia / figura scrip/tus est "; this rota is no longer in the manuscript.

Fol. $66^{\mathrm{r}}$ shows the following arrangement:
(a) 11. I-6, a runic alphabet, with above each rune its value; at the end "Super sunt iste", and four remaining letters.
(1) Cf. H. Schenkl, Bibliotheca Patrum Latinorum Britannica VI, 46, no. 751. (Sitzungsberichte der philosöphisch-historischen Classe der Kaiser lichen Akademie der Wissenschaften CXXXIX. Wien, 1894).
(b) 11. 7-12 a similar runic alphabet, again followed by "Super sunt littere iste .IIII. " and four remaining runes.
(c) 11. 13-18 a third runic alphabet, with the values shown in the same way.
(d) 11. 19-24 an example in runes with the transcription PAX VOBISCVM ET SALVS PAX.
The runes are drawn with evident care, and measure in mm.

## $*^{*} *$

Cotton MS. Vitellius A 12 consists of several originally independent manuscripts. The part which contains the runes seems to have some relation to Abbo of Fleury's visit to England (986-988) (r); part of it was presumably written in Bury St. Edmunds or in the neighbourhood (2), but the portion which interests us here is believed to have originated in the West Country (3). Bishop Ussher used it for his edition of the Epistola Cummiani. It was described by T. Smith (4) and H. Wanley (5), but soon after sustained considerable damage in the fire of the Cottonian Library. Wanley seems to have been the first to notice the relationship between this manuscript and Exeter MS. 3507, at least as far as the runes are concerned; he copied them from both manuscripts for G. Hickes, who used them in his Thesaurus (6).
(x) See e. g. A. Van dr Vijver, Les cuuvres inédites d'Abbon de Fleury, 141 (2) A. Boutrayy, Latomus I (1937), 295. (3) F. Wormato, English Kalendars before A.D. 1too. Vol. I: Texts on fols. $65^{v}-71$ to Exeter.
(4) T. Smitr, Catalogus, 82 f. (9. Alphabetum Norwegicum sive Runicum) (5) H. Wanley, Catalogus, 239 : fol. 62. Alphabeta Runica uia, cum his verbis Runicis litteris PAX VOBISCUM ET SALVS PAX. Eadem Alphabeta occurrunt in libro veteri Exoniensis Ecclesie, ex quo ea descripsi haud ita pridem, in usum D. Georgii Hickesii ".
(6) G. Hickrs, Thesaurius, Grammaticae Islandicae Rudimenta, Tabella II : 5 . Alphabeta 3. qua habentur ad calcem Libri Hrabani Mauri de Computo, in antiquo Cod. Ms. Exariensis Ecclesix, and: Grammatica Anglo-Saxonica, 148 : "...secundo notandurn est ì vocabulis Emperic \& Iustice, c apud Anglo-Normanno in Gallo-Latinorum fine sonuisse ut somanorum. Unde forsan in Runarum alphabeto quod extat in bibliotheca Cotton. Vitellius, A. 12. tertium elementum

Usual Cottonian brown leather binding with gilt tooled arms; on the back DIALOGUS / INSTITUT. ECCLESIAS. / TRACTATUS VARII / DE RATIONE TEMPORUM/VERSUS ET/ / OOEMATA, /PGE NITENTIALE ANTIQUUM. / MUS.BRIT. / BIBL.COTTON. / VITELLIUS A.XI PLUT. XXVI.C. The manuscript has been badly damaged by fire and by moisture. Especially the upper and outer margins have suffered; the parchconsiderably. Fortunately the repairs have been made carefully : each folio has been set into a leaf of stiff paper, the corresponding part of which was cut out, and fastened along the edges; only the transparent material used to fasten the edges sometimes covers small portions of the much faded text. The ink seems to have been washed away in places, especially the rubrics. The page with the runes, however, is fairly legible. Three fly-leaves of the same strong paper have been added in front and have been included in the new folio num bering; therefore it does not coincide with the old numbers (e. g. new fol $65=$ old fol. 62). Fol. $3:$ a strip of parchment ( $30 \times 135 \mathrm{~mm}$ ), with a later script, has been pasted on the paper leaf; the manuscript actually begins with fol. 4. As all folios are loose, only the old quire numberings can help us to reconstruct the composition of the codex: $12^{r^{\prime}} 1^{\prime}, 20^{\mathrm{r}} 2^{\prime}, 28^{r} 3^{\prime}, 33^{r^{r}} 4^{\prime}$,

 another series, apparently older than the one with capitals: 109 ${ }^{r^{\prime}} 1^{\prime}, 116^{\prime \prime}{ }^{2}$,
 material may be lost in front, ${ }^{\text {f. }}$ * seems to have comprised fols. $5-72$; MS. ${ }^{* B}$ fols $87-185$, but was itself made up of different parts : 87 ff., 10 ff., 109 ff ., 136 ff . Between *A and *B an amount of material was inserted when the two parts were brought together. In *B the parchment is as a rule thinner, the ink darker than in *A.
The maximum measurements of the irregularly shaped pages now vary between $205 \times 115$ and $210 \times 145 \mathrm{~mm}$; written area ca. $195 \times 100 \mathrm{~mm}$; *A has mostly one, *B two columns; 36 (fol. 4) to 69 lines (fol. 106) to the *A has mostly fol. $123^{\text {r }}$ has, exceptionally 86 II. Judging from the handwriting, ${ }^{* B}$ is page; fol. $123^{\text {r }}$ has exceptonall
somewhat later than ${ }^{*} \mathrm{~A}$, though most of the codex may be dated in the late inth century (part of $* \mathrm{~B}$ in the late 12 th ).
To the survey of the contents as given in the Catalogue of $\mathbf{1 8 0 2}$ (1), I add ome items and remarks
Fol. $4^{\mathrm{T}}$ : Rabanus de compoto (later hand).
inctus dialogus eclesistice institutionis à Dom. Egbherto Archiep. Eborac. civitatis compositus. Editus a Cl. Jacobo Wareo Dublini, 1664
quod respondet Latinorum \& Anglo-Saxonum c, designatur per Cimbrorum veterum sigma [s] . ut in hac tabella videre est ..." The first two alphabets in this tabella do correspond to nos. I and 3 in the Cotton manuscript, but the third (i. e. that which is supposed to illustrate Hickes's point) is a Nors alphabet taken from some other manuscript.
(I) Catalogue, 379 f .

8r: Sententia Abbonis, de differentia circuli et spherre, et de cursu septem planetarum per zodiacum circulum.
10 ${ }^{\text {² }}$ : Rabani monachi de cnmputo liber. Sic ait rubrica; sed est opu Gilde: INCIPIT / PROLOGVS RABANI PERITISSIMI VIR (cf. Ex., ${ }^{\text {ve }}$-57r). The (cf. Ex., $\mathbf{1}^{v}-57^{\text {r }}$ ). The incipit simply attributes the work to Gildas :
Dilecto fratri Rabano monacho Gildas peccator in Christo salutem
40: Versus de mensibus, signis zodiaci, cursu anni, octo tramitibus circull o': decennovenalis, septem dierum appellationibus. A series of shot poems on computistical and astronomical subjects (most items als in Ex., $57^{\mathrm{V}}-64^{\mathrm{r}}$ ).
42" : De septern miraculis manufictis; de duobus verticibus mundi; de diebus Exgyptiacis; ordo librorum Catholicorum in circulo ann legendorum.
44": De vocibus literarum, quomodo formantur ( $=$ Ex. $64^{\text {º }}$ ).
$6^{\mathrm{r}}$ : Gildx, peritissimi viri, liber de compoto, de mundo, planetis, stellis, tonitruo, fulminibus, ventis, oceani æstu, flumine, terre motu, monte Etna, alisque physiologicis : cum prefatione ad Rabanum monachum quam edidit Usserius in epist. Hibernicar. Sylloge, Dublini ib. 2. p. 55 . INCIPIT LIBER $/$ GILDE PERITISSIMI. DE NATVRA RERVM, i. e. Isidore, De natura renum ( $=$ Ex., $67^{\top}-97^{\gamma}$ ). The address too has been adapted to fit this attribution, the name Sisebuto
having been erased : "Domino et filio (erasure) salutem" Smith and the catalogue of 1802 seem to take this stribution serinth Moreover they mix up the computus of fol so ff serious, De natura renum.
1 : (blank) was taken from another manuscript, probably to fill the place of a lost fol.
$65^{*}$ : Alphabeta Runica tria; cum his verbis, Runicis literis, " Pax vobiscum et salus pax ".
$65^{\circ}$ : Calendarium vetus.
$7_{72^{\circ}}$ : Versus de constellationibus, et ventis.
$73^{v}$ : Kalendarium aliud, cujus omnes dies nominibus sanctorum signantur 78 : blank.
$79^{5}$ : Epistola Cummiani, directa Segieno abbati, de disputatione lune Edidit Usserius in Epist. Hibern. syll. p. 24.
$8_{3}{ }^{\text {r }}$ : Epistola Bedae presbyteri apologetica, eo quod insimularetur quibusdam de
$87^{\text { }}$ : Libellus de computo; cum regulis ad inveniendum annum, indic tiones, epactas, xtatem lunx, \&cc.
$101^{\text {P }}$ : Libellus alius de eodem argumento.
109 Deo dicatam, de capta Bajocensium civitate; ejusdem invectio in Gilbertum abbatem Cadomi; item versus ad Odonem Hajocensem episcopum, cum alis.
$114^{\text {r }}$ : Versus rhythmici Godefridi prioris Eccl. S. Swithini Wintoniensis, de moribus et vita instituenda.
$117^{r}$ : Vita S. Mariex Æyyptiace, per Hildebertum; versibus.
$122^{*}$ : Ejusdem episcopi versus de XII. plagis Ægypti, \&c.
$123^{\text {r }}$ : Marbodi versus de laude castitatis, de dissuasione mundana cupiditatis, \&sc.
$124^{\mathrm{r}}$ : Versus de XII. Imperatoribus Romanorum; de longitudine regni, et finibus eorurn; item invectio in quendam abbatem monachalem
$7^{7}$ : Invectio Gualonis Britonis in monachos,
: Invectio Gualonis Britonis in monachos, versibus rhythmicis.
Marbodi versus de VII. primis diebus, de Marbodi versus de vir primis dieb.
$133^{7}$ : Versus Hugonis Sotavagine, cantoris et archidiaconi Eccl. Sci. Petri Eboraci.
$35^{\circ}$ : Versus Augustini Canonici.
${ }^{3} 6^{7}$ : Poenitentiale antiquum, ex variis canonibus, item ex prenitentiali Romano, Theodori, et Bedx collectum
184 ${ }^{\nu}$ : Oratio dominica Normanno-Saxonice.
$185^{\text { }}$ : Narratio fabulosa de quodam episcopo; qui celebraturus divinum officium, ex vultu cognovit quinam digni essent, quinarn indigni, ad communicandum.

The alphabetic material is distributed as follows :
fol. $45^{\mathrm{r}}$ : A collection of alphabets ( $=$ Ex. $65^{\mathrm{r}-\mathrm{v}}$ ) : a Greek alphabet' with the names of the letters and their values, and a similar Hebrew alphabet have been mixed together : Greek col. $a$, 11. 10-19, 30-36, col. $b$ 10-16; Hebrew col. $a^{20-29}$, col. $b_{\text {17-34; }}{ }^{2}{ }^{v}$ another Greek alphabet with numerals and corresponding Greek figures, additional numerals and graeca, and list of the Greek letter-names.
$65^{\mathrm{r}}$ : Three runic alphabets and an example illustrating their usage (Ex. 66 ${ }^{\mathrm{r}}$; similar arrangement) :
(a) 11. 1-4: $a-o / p-z$, with above each rune its value; after $z$ : "Supersunt istę" and four more runes.
(b) 11. 5-8: same arrangement; after z: "super sunt litterę istę iiiior".
(c) 11. 9-12: $a-p / q-z$, for the rest the arrangement is the same.
(d) 11. 13-16 : the example PAX VOBISCVM ET / SALVS PAX, with this transcription above the runes.

The runes, consequently, do not occur together with the other alphabets, as in the Exeter manuscript. Fol. $65^{7}$ may originally have been blank, a calendar beginning on $65^{\circ}$; when the scribe had no space left on fol. $45^{\mathrm{v}}$ to add the runes, he inserted them on $65^{\mathrm{r}}$. The runes are on the average 5 mm high; they are as a rule well drawn, though they show some measure of 'cursivation' (1); serifs have been freely added.

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The close relationship of the two manuscripts, or at least of the two sets of texts which they have in common, is evident even from a brief inspection. Whether Vit(ellius A 12) is a direct copy of Ex(eter MS. 3507), only a detailed investigation of all they have in common could decide (2). In the part which I examined there are mistakes found in both manuscripts, e. g. dentes moti ( $=$ morti); Vit has many mistakes not in Ex : Ex C Molaribus ... exprimitur: Vit solaribus; Ex F Dentes: Vit Mentes; Ex Beta: Vit Beata; Ex I iota.auris sive aurum : Vit ... arum etc., but Ex only few not in Vit and they are often such as could be corrected easily, e.g. Ex $K$ cappa prudentitia, Vit ... prudentia. For our purpose it does not matter which of the two possible forms of relationship (Vit copied from Ex, or both descended from the same prototype) will actually be found to exist, as the runic material in the two manuscripts is practically identical.
In tracing the origin of the two manuscripts, the attribution to Gildas may be a clue. It is proposed only tentatively in Ex, and only with reference to Isidore's De natura rerum (marginal note on fol. 68r); in Vit not only this work, but also Hrabanus Maurus's De computo is attributed to that British scholar. Therefore Jones is probably right in assuming British in fluence (3).
(1) They are at any rate less 'decadent' than Hickes's facsimile might lead to suppose.
(2) N. R. Krr, Salisbury Cathedral Manuscripts, 156 note 2
(3) C. W. Jonss, Bedae Opera de temporibus, 89 f., note 4.

The arrangement of the runic material is the same in the two codices. It consists of three alphabets and an illustrative example. Above each rune its value is shown by a Roman capital. At the end of the first two alphabets follow four suppletive runes, inscribed "supersunt iste" (first alphabet) and "supersunt littere iste. IIII." (second alphabet). The difference between the two manuscripts lies only in the style of the runes: Vit has obviously less understanding for the runic style than Ex, which shows an almost epigraphical severity of line. Vit imitates the smallest peculiarities of Ex, e.g. in the $r$ of the third alphabet, and in the o of vobiscum.

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Phillipps MS. 3715 was described and edited in 1846 by Sir Thomas Phillipps, the then owner (I). During the gradual dispersion of the Phillipps library it seems to have been sold but I have been unable to discover its present location (2).
(1) Letter from Sir Thomas Phillipps, Batt., F. R. S., F. S. A., addressed to Albert Way, Esq., Director, communicating a transcript of a MS. Treatise on the preparation of Pigments, and on various processes of the Decorative Arts Mappex Clavicula. In : Archaeologia 32 (1847), 183-244.
In the catalogue of the Phillipps library, however, the manuscript is dated
In the catalogue of the Phillipps library, however, the manuscript is dated
sec. XIII' (Catalogus Libronum Manuscriptorum in Bibliotheca D. Thome Phillipps, Bart. A.D. 1837 . Impressus Typis Medio-Montanis 1837 sseq., p. 48). Cf. also (all based on the Letter) : M. Berthelor, Adalard de Bath et la Mappae Clavicula (Clef de la peinture). Journal des savants 1906, 61-66 = Archeologic et science, 1908, 172-177.
H. Diats, Die Entdeckung des Alkohols. Abhandlungen der Königlich Preussischen Akademie der Wissenschaften. Jg. 1913. Philosophisch historische Classe Nr. 3,6 ff.
L. Thorndike, A History of Magic and Experimental Science. New York 1922, I. $468,765 \mathrm{ff}, \mathrm{II}, 22 \mathrm{f}$.
C. H. Huskins, Studies in the History of Mediaeval Science (Harvard Histor ical Studies XXVII). Cambridge (Mass.), 1924, 30 f .
J. Svknnung, Compositiones Lucenses. Studien zum Inhalt, zur Textkritik und Sprache. Uppsala Universitets Arsskrit 1941:5.
(2)绪 the date on which the mascript was sold, nor who is its present owner.

Consequently the discussion will have to be based exclusively on Phillipps's account ( I ). Being over a century old, this account does of course not give all the information we could expect in a modern publication; fortunately it includes facsimiles of the two runic alphabets found at the end of the codex.

The manuscript was described as "a small duodecimo volume of sixty-seven leaves of vellum, written in the twelfth century. It appears to be perfect, except a leaf torn out between pp. 64 and 65 of the modern paging, and a little cropping in two leaves. It was purchased in Paris, in 1824, from the Rev belonged to Cure of the church of Saint Eustache, and had previously that used in England or Flanders in the time of Henry II.; but from an English word being used in the work the presumption will be, of the two nations, in favour of England... The passage which quotes the English word is in chapter cxc. where the shrub "caprifolium" is translated "goat tree". This is a singular circumstance, and seems to indicate, as I said before, that the author or the transcriber was an Englishman, for had he been of any other nation he would most naturally have translated it by the language of his own country. Moreover, in the very next chapter, he mentions the herb grening mistaken for a $p$. ( $)$ which I consider an additional mark of his being an English author" (2).

The manuscript must go back to a much older original (saec. IX/X), written in Kent (3). The title INCIPIT LIBELLUS DICTUS MAPPE CLAVI CULA is followed by some introductory material and a prologue (pp. 187-9) (4) The list of the chapters (Incipiunt Capitula, pp. 190-2) does not entirely agre with the chapters in the text : Cap. 1-209 correspond to Text 1-261 (with numerous additions), after which come 32 more chapters (262-293). Th table of contents consequently belongs to an older 'edition'. The expanded version of the Mappae Clavicula, a treatise on chemistry, alcherny, painting,
(1) His comment on the runes has only historical interest (o. c., 186 ) One of the most valuable entries in the book is connected with philology namely, the alphabet of Runes, if they are Runes, but which I am inclined to think are Oscan, or very early Greek, and derived originally from the Persepolitan, or Babylonian character '", etc.
(2) T. Philulpps, Letter, 183 . 'Since the mention of the missing leaf is found on p. 243 of the text (which covers pp. 193-244), it was probably torn out between fos. 64 and 65 , not between pages 64 and 65 .
(3) Tiie for 1 to a Kentish original of the ninth or the tenth century, of. H. Diges, Die Ent to a Kentish original of the (4) In Puiulppg's edition 2
therefore I can give only those of his printed text, except are not indicated the runes, where I have tried to reconstruct the order of the material.
building, glass, mensuration of altitudes, warfare, etc. may be due to Adalard of Bath, "the greatest name in English science before Robert Grosseteste and Roger Bacon" (r)
The runes are found on two of the last folios of the codex, amidst material not registered in the table of contents. Chapter cclxxxviij Azur quomodo molatur (p. 241) is followed by a mnemotechnic distich on weights, and a runic alphabet, with above each rune its name, and below its value; to the lower left, the inscription super $s u[n t]$ and three more runes (2). The outer margin had been trimmed, resulting in the loss of part of the name of the $l$-rune and of the last six letters of the inscription supersu[nt iste] (and also, as we shall see, of ther une for $z$ and the fourth suppletive rune). Next comes a table with symbols for weights (Assis, Deunx, etc.); recipes for making soap (without title : Duæe partes cineris quercini, etc.) and a table of Roman numerals from I to L. On p. 243 we find the remark "(A written leaf has been torn out here)" What follows must consequently have been found on fol. 65 : Stagni $\div$. ix, c(u)pri $\div \operatorname{ar}($ genti) $\mathrm{vj} . . \div$ simul funde, per figuram arragab, etc.; a runic alphabet, with above each rune its value; a Greek alphabet of a late date, majuscules and minuscules, with the values and the names of the letters (alpha, beta vel uita ... zita, ita, (t)hita, etc.). Of this page, too, the margin had been cropped. Then comes chapter cclxxxviiij : Ad vitrum incidendum. Since there is no gap in the text of the Mappae Clavicula notwithstanding the loss of a leaf, we may suppose that the folios with the runic alphabets etc. originally belonged to another manuscript; their having had a different format would explain why part of the text along the margins was lost.

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The first of the two alphabets in this manuscript ( Ph ) is no doubt related with the first in Exeter MS. 3507 (Ex) and Cotton MS. Vitellius (Vit) A 12 :
(x) C. H. Haskins, Studies, 20. A German version which must be rather close to the prototype of the Phillipps manuscript is found in Schlettstad MS. $1153^{\text {bis }}$, cf. H. Diris, Die Entdeckung des Alkohols, 6 note 6.
(2) Probably on fol. $64{ }^{\text {r }}$.


The second alphabet in Ex and Vit shows almost the same forms :
$\begin{array}{llllllllllllllll}A & B & C & D & E & F & G & H & I & K & L & M & N & O & P & Q\end{array}$ KBhDMY*NI世 $\operatorname{CNTNAS}$
$R \quad S \quad T \quad V \quad X \quad Y \quad Z \quad$ Super sunt littere iste. .in.

Therefore we are fully justified to discuss these five alphabets together.
$a$ : the rune chosen to represent $a$ is $a$, as appears also from the name $a g$ in Ph . This is the same form as that found in Munich MS. i9410, and it may have the same origin
(*) The following footnote applies to la... in 1. I: "The margin of the Ms. is cut" (Letter, 241). Phillurps gives the runes and their values in (**) In
(**) In Ph the rune for $z$ is lost, together with its name; the fourth extre rune ( $x$ in Ex Vit) is also lost, and of the text on the suppletive runes only
super su $[\ldots]$ is left.
$b$ : Ex Vit retain a rather primitive type of $\mathbf{b}$, in which the two loops are drawn well apart; Ph has a form adapted to a capital B of its time. The name berch may be explained as berc written by a High German scribe.
$d$ : the forms of $d$ and $m$ are hardly distinguished. Ex shows some sort of an attempt in the first alphabet, where the cross strokes of $\dot{m}$ do not reach all the way down the vertical shafts, but Vit does not seem to have noticed this detail. The name derhu indicates that there may be a good many intermediaires between the original alphabet and the version in Ph ; it differs as much from dag as from porn; yet it may perhaps rather be derived from the latter in the form dhorn; cf. dhron in Paris MS. 5239.
$e$ : To explain the form of the name $e g$, we probably have to start from eh, cf. Berne MS. 207 egch and fegc.
$f$ : unless we derive feu from OE. feo (abstracted e. g. from the gen. feos), it could be either ON. (cf. Leyden MS. Voss. lat. Q 83 : feu) or OLG. (eventually OHG). The latter is more probable than the former, as there are no other traces of ON . influence ( $t i r$ is not conclusive).
In Ex Vit the rune has only one lateral stroke, in Ph two Ph must then be derived from another exemplar than the common ancestor of Ex Vit.
$g$ : the obviously corrupt name may perhaps be read geuue or geue, cf. geuo in Munich MS. 19410.
The rune itself appears in two different forms: with long crossing strokes in Ex Vit Ph , with short ones in the second alphabet of Ex Vit. Although the name in Ph is that of g the form is rather that of the variant $j$ (gear /iar).
$h$ : part of the name may have been illegible in one of the ancestors of Ph (he[gil]? he[gl] ? he[il]?) Damage to the exemplar may also account for the absence of a name for the next rune, $i$.
$k$ : formally this rune is the $x$-rune (eolhx), but the name cer (cf. ker in Munich MSS. 14436 and 19410, Vienna MS. $75^{1}$ ) is decidedly derived from that of another rune. There
are two possibilities: either OE. gär was translated into OHG., giving gèr or kēr; or else OE. ger (= WS. gear) was germanized to ker. The latter explanation is the more probable : the $j$-rune had been given the place of $g$, hence its name remained unused; in a German garb it could serve as a name for $k$. Since $\overline{\mathbf{g}}$ does not occur among the suppletive runes, it is rather likely that it was not found in the underlying fuporc.
$l$ : the name in Ph may have been lagu or lago.
$m: c \mathrm{cf} . d$.
$n$ : net is probably an adaptation to OHG. phonology of OE. ned.
$p$ : the name perd preserves the OE. (Anglian) form. The adaptation of the dentals was not performed in a uniform way.
$q$ : here again rune and name do not belong together. The rune is of course the $q$-rune, and was chosen for $q$ on account of its similarity to Roman $Q$. The name cui is probably to be connected with the form cur found in a number of manuscripts.
$r$ : rat, too, is adapted from OE. rad.
$s, t, u$, : all three runes are accompanied by the regular OE. form of their names.
$x$ : one might be at a loss to identify the rune chosen for $x$, if it did not appear that from here on the runes or the names and values have been shifted one place : the $x$-rune takes the place of $y$, the $y$-rune that of $z$ (in Ex Vit, but missing in Ph ), and $z$ is found among the suppletive letters. The symbol found for $x$ looks rather like a $c$-rune (especially in Ex Vit), but I believe its origin lies elsewhere : it is either a variant of the $u(\mathrm{~Pb}$ would make this rather probable, but its forms are not very trustworthy), which would at the same time explain why the names and values were shifted one place : instead of writing $x$ (and the name of that letter) above the rune acting as $x$, one scribe may
have written it above the variant for $u$, etc.; or else this $x$ goes back to x written upside down (cf. the 'double' forms in St. Gall MS. 878 and Munich MS. 19410) or to $\mathbf{k}$, the left lateral stroke of which had become partly invisible; formally this would account for the lateral stroke (in all three manuscripts) not ending at the stem, but transecting it. The second solution is the more probable, especially if we assume that the rune was an $\boldsymbol{x}$ turned upside down. This latter assumption is rendered rather obvious by the form of the $k$ in the alphabet. In this way $\mathbf{x}$ is restored to its original value. We have here a good illustration of the way in which $\mathbf{k}$ and $\mathbf{x}$ could be confused. A rune $\mathbf{k}$ having been turned upside down, hesitation arose as to the actual form of $\mathbf{x}$. A middle course was chosen : for $\boldsymbol{x}$ two forms were given, the regular $\mathbf{x}$ and the same form upside down. Later on this led to a shift of the values as indicated above. The name of the rune is unique and may have been invented ad hoc: it looks as if the resemblance to the $c$-rune had led the alphabetizer to derive a new name from cen : xen.
$y$ : the $x$-rune has been combined with a name uir, which is either an attempt to render OE. $y r$, or an archaic OE. spelling for the latter ( $\mathbf{r}$ ). In Ex and Vit the $y$-rune is found under $z$; in Ph it has been cut away.
$z$ : in Ex and Vit the rune which takes the place of $z$ is a variant form of the regular OE. $\mathbf{y}$ (i. e. $\mathbf{u}$ with subscript $i$ ). The first of the suppletive letters is actually the $z$ of the alphabet. It looks rather like a Roman capital Z, at least in Ex and Vit; whether it was really derived from that letter, or whether it is to be connected with 3, only the name of the rune could have made clear; but that namehas been lost together with the $y$-rune in Ph. The second alphabet in Ex and Vit has a cursive $z$, which tends to prove that Roman $\mathbf{Z}$, not $\mathbf{3}$, is behind the last letter of the alphabet.
(1) E. Subvers-K. Brunner, Altenglische Grammatik, §94 A.

The three remaining runes (the last of which is also missing in Ph ) are in, $\mathbf{p}$ and $\boldsymbol{x}$. The alphabetizer apparently had no use for them. The fuporc which he used may be reconstructed as follows (of the $g$-rune only the name was retained) :


From the discussion of the details some general information may be derived :
(1) The fuporc used by the alphabetizer probably originated in Anglian territory (berch, eg, cer, net, perd) and may have reached the Continent at an early date (sigil, uir).
(2) The alphabetizer may have worked on the Continent; several peculiarities of his alphabet can only be explained as being due to the influence of OHG. phonology. There may be some remote relationship between his work and the alphabets in Munich MSS. 19410 and 14436. This High German influence appears only from the rune-names in Ph , and it is of course a priori not impossible that the versions in Ex Vit never left England. But on the other hand the three versions have in common such striking peculiarities, that one can hardly assume that Ph came from the Continent without implicating the same for Ex and Vit. The neighbourhood of a work by Hrabanus Maurus agrees well with this view.
(3) He proceeded rather freely, and not always with much understanding for the typical features of the runic system; thus he separated the names from the runes as he thought fit and changed the values, sometimes on purely external features (e. g. ce takes the place of $q$ ).
(*) C. p. $\mathbf{1 8 8}$, note ( ${ }^{*}$ ).
(4) It is not possible to decide at what date this alphabet (at least in the Ph version) was reimported into England. The shift of the values in all three manuscripts and the rather severe distortions of the names in Ph prove that their common ancestor was written by a scribe with hardly any knowledge of the runes; otherwise he would certainly have corrected this material according to his own conception of a runic alphabet.
(5) As to the relationship of the three versions, one may safely state that Vit is either derived from Ex, or both are descended from a common ancestor. Either Ex or the common ancestor gave up the rune-names, which Ph has kept; Ph also has the correct form of $f$. The second alphabet of Ex and Vit may originally have existed in Ph as well; in that case it was lost when a leaf was torn out between fols. 64 and 65 of the latter manuscript. It shows such trifling differences with the first alphabet (short cross strokes in $g$ and a cursive type of $z$ ) that one is surprised to see the scribes of Ex and Vit take the trouble to copy it.

$$
*^{*}{ }^{2}
$$

The third alphabet in Ex Vit and the second in Ph are again very closely related:
a bed ef $g$ i ik c m

 n op $\quad$ pres $\quad$ t $u$ y $z$



This alphabet differs from the first on the following points: $d g h k$ o $q x y z$. The last three runes come apparently in the right places, as $z$ is probably a cursive $z(\mathrm{Ph})$ or derived from such a letter. The $u$-rune shows a slightly different, perhaps more archaic type. But differences with the first alphabet are found on practically all the critical points ( $d, g, k$, etc.), therefore we can say a priori that this alphabet is the outcome of a different alphabetization. The curious addition to the right of the stem of $r$ in Ex is also found in Vit : it is accidental, and just one more proof of the close relationship of these two manuscripts.
$d$ : the case of $d$ is a simple one $:$ as we found in other manuscripts, the distance from porn to dorn was small indeed, and so was that from $\mathbf{b}$ to $d$.
$g$ : the type of $g$ is that of the isruna group and of a couple of alphabets derived from that group. See also below.
$h$ : this $h$ reminds one of the possible variant in Domitian A 9 , which may in fact be a $y$-rune, as in the isruna group. We probably have to assume that the name of this rune at one time was hinc, cf. that form in Brussels MS. 93 11-93 ${ }^{19}$ and in Nemnivus's alphabet.
$k$ : the place of $k$ is taken by the $\bar{g}$-rune. This probably requires an intermediate stage where the name of the rune had become car (cf. caar in Munich MSS. $1443^{6}$ and 19410). Consequently, it is rather likely that this alphabet too was created on the Continent.
$o$; Continental influence may also account for the value of the $\propto$-rune ( OE . apel, epel $=\mathrm{OHG}$. odil, odal).
$q$ : for $q$ the alphabetizer probably chose the $k$-rune (cf. Vatican MS. Regin. 338).
$x$ : in this case Ph seems to present a more archaic type of $x$ than Ex Vit; at any rate it agrees closely with the $x$ in Munich MSS. 14436 and 19410, as well as with that in the fuporc of St. Gall MS. 878 .
$y$ : this type of $y$ is not well established for England, but is found in the De inventione alphabet and in Leyden MS.

Voss. lat. F. 12 . Formally it is identical with $x$. Perhaps we may again suppose that at the origin there were two forms of $x$, one of which was then interpreted as $y$. $z$ : is derived from a Roman $Z$.

On the whole the evidence for Continental (High German) influence is smaller in this alphabet than in the first. The absence of the names probably helps to convey this impression; but the agreement of the three manuscripts is also an important factor, and in this case Ph may force the decision. One may of course raise the question whether these runes were not revised after having returned to their homeland. For the first alphabet such a thought may safely be rejected, but for the second, with its somewhat archaic features, the possibility may be left open. Some connexion with the isruna fupore must be admitted, though too little seems to be known of the Continental background of these manuscripts to allow of a definite conclusion.
10. Vatican Library, MS. Reginensis lat. $33^{8}$ (saec. X ex.).

The runes of this codex were discovered by G. H. Pertz, who communicated them to W. Grimm ( I ). They were noticed again by C. Greith (2) and edited also by an anonymous author in 1855 (H. Massmann ?) (3). The codex consists of two parts, written at about a century's interval but apparently in the same region. They may have been bound together before they came into the possession of Alexandre Petau, the French humanist. Afterwards the manuscript belonged to the library of Queen Christina of Sweden, who bequeathed her collection to the Vatican Library.
Plain modern red leather binding with the arms of Pope Benedict XV and of Cardinal A. Gasquet. The following data apply only to the latter part
(x) W. Grimm, Zur Litteratur der Runen, 2x f. $=$ KI. Schriften III, 108. (a) C. Gremtr, Spicilegium Vaticanumo. Beitr Mittelalters. Frauenfeld, 1839 , 45 f.
(3) Anzeiger für Kunde der deutschen Vorzeit $\mathbf{1 8 5 5}$, 4, 77 ft .
of the codex ( x ) : Parchment of poor quality with many repairs, ca. 180 150 mm ; written area $140-145 \times 80-85 \mathrm{~mm}$; 20 lines to the page Composition of the codex : $A=$ fols. $1-63-8$ quaternions, in the last of which one folio is missing; $B=$ fols. $64-126=8$ quaternions numbered on the last page; the first two folios are only "miserandae laciniae"; of fol. ${ }^{1082}$ only a amall strip is left (2).
Part B was written by an English scribe, but probably on the Continent (Northern France) and in Carolingean minuscules, about the end of the tenth century. About a century later a reader, also English, added a number of (fol. rirms $^{v}$ ), a praver charm against fever (fol. $\mathrm{gr}^{\mathrm{r}}$ ), a note on bloodletting contemporary, added a number of that ( $1,14^{4}$ ); he himself, or contemporary, added a number of short notes (3).
Contents:
A: Leges Ribuaria et Salica (saec. ịX ex.)
B : fol. $64^{v}$ A fragmentary metrical calendar of English origin, the so-called martyrologium Bedae.
67\%. Amalarius (?), Eclogae de officio missae.
88* De decem praeceptis vel de decem plagis.
90
$9 \mathbf{r}^{v}$
Seven alphabets (cf. infra)
$91^{*}{ }^{*}$ Seven alphabets (cf. infra)
${ }^{96} 6^{v}$ Pontifical benedictions.
${ }^{90} 7^{r}$ Liturgical items (nuptial benediction, etc.)
ro8 ${ }^{\text {v }}$ Breviarum Psalterii.
$115^{v}$ Monastic hymnary.
The alphabetic material on fols. $9 \mathrm{r}^{\mathrm{v}}-93^{\mathrm{r}}$ consists of the following items :
(1) A Hebrew alphabet with the inscription (fol. $9^{\mathrm{x}} \mathrm{v}$ ) :

Haec sunt litteras hebreorum / iuxta numerum .XXII. librorum ueteri testamentorum \& litteras / ipsas matrem esse omnium litterarum / quę per moysen data sunt XXII. eorum forma ita est.

The letters are written in two vertical columns, with to the right of the letters their names, and to the left their values; in the first column a alep - ch caf, in the second l lamech - th Thau.
(r) For full details see A. Wilmart; Codices II, 258 ff.
(2) There are two different foliations: $A=1-61, B=62-123$, in ink in the right top comer of each recto page; this places the runic alphabet on the right top comer of each recto page; this places the runic alphabet on
fol. $90^{\text {r }}$ (sic Grimm; Grerre is not quite clear; the author of the paper in fol. $90^{\circ}$ (sic Grimm; Grerth is not quite clear; the author of the paper in
the Anzeiger also has the alphabets begin on fol. 88v, the runes on on $A=1-63, B=64-126$, stamped in the right bottom comer of each recto page and used by Wimmart, whom I have followed here.
(3) W.'Stokns, The Anglosaxon Prase and Glosses, 144.
(2) Another Hebrew alphabet with the inscription (fol. $91^{v}$ ): Iudaicas uero quibus / \& iam nunc utuntur iudei / isdem uocabulis eadem / uirtute forma immu/tata ZV supra me/morauimus \& sunt istę / formę quodmodo utuntur.
The letters A Aleph to $m$ mem in one column on fol. $9 \mathrm{I}^{\mathrm{v}}$, continued on fol. $92^{\text {r }}$ from $N$ nun to $T$ tau, also in one column; same arrangement as for the preceding alphabet (from left to right : values, letters, names).
(3) A Greek alphabet with the inscription (fol. $92^{r}$ ): Haec sunt caracteres / grecas iuxta numerum / XXIIII. seniorum sic eorum / nomina in ordine / positę formę iste.
Then follows the alphabet in two columns (values, letters, names) from $A$ alfa to $z Z z \& a$ and $h H$ h\&a to $o \omega o$.
(4) A Chaldaean and Assyrian alphabet with the inscription (fol. $92^{\mathrm{V}}$ ):

Haec sunt caracteres que caldei / \& asyrii utuntur \& ante/quam XXIIII erse manifesta est/sicut \& latini ita
in ordine / formę ita est.
The alphabet shows the same arrangement as the preceding ones (values, letters, names); it is written in two columns : a alim - m morm, and $n$ nithoin - $y$ sophy.
(5) An Egyptian alphabet with the inscription (fol. $92^{v}$ ): Haec sunt caracteras egyptorum quas / utuntur ita sunt in ordine positę siçut / \& latinę. formę autem istę sunt.
The letters $A$ atohin - uur follow on the same page with the usual arrangement; the remaining four $x$ xyron - tau on fol. $93^{\mathrm{r}}$. On fol. $92^{\mathrm{v}}$ a later hand repeated the 'Chal-daeo-Assyrian' $k$ to the right of the original character. In the lower left margin an untrained hand wrote the Latin letters bcdefghik, and perhaps also the two scribbles to the left of the text on the 'Egyptian' alphabet.
(6) A runic alphabet inscribed RUNAS, without further introductory text, in two columns a aac-p pear and $q$ yymoth -z gaar.
$\qquad$
 . -
(7) After the $z$-rune one line blank; then comes one more alpbabet inscribed NORMA, still with the same arrangement. The characters for $a-k$ form one column, those for $l-z$ a second column. Below the $z$ an untrained hand made four more or less successful attempts to write non continebit; it also repeated part of the name of the $z$ just above the original; finally the same or another hand repeated the name of the $o$-rune between that rune and the name as written by the first hand, and the $p$-rune to the right of the original.
The first Hebrew alphabet is closely related to that found in the De inventione treatise. The second seems originally to have implied a better knowledge of the Hebrew characters, but has evidently suffered much in the course of being copied. Not only the forms of the characters in the two alphabets show important differences; the names too differ : (1) alep zat teh lamec samet Thau: (2) aleph zai t8ih lam\&h samec tau.

The Greek alphabet too shows traces of having been copied over and over : the name of $\epsilon$ is $h e$; the value of $\theta: T b$; the name of $I$ : ioth, of $A:$ lauda, of $\Psi: s p i$. The next two alphabets are of special importance for determining the background of the collection. They connect it with a group of manuscripts mentioned occasionally before and apparently proceeding from a collection made up in the eighth century or even earlier. In an appendix to this chapter a brief survey of these spurious alphabets will be given.

The text of the introductory notes is due to a very poor Latinist, who stumbled even over the simplest sentences : he repeatedly used the accusative for the nominative, wrote testamentorum for testamenti, forme ita est (for ... sunt), etc. The paragraphs on the two Hebrew alphabets hardly make sense. It looks as if the compiler had tried to condense a more extensive version, and in doing so had eliminated a few indispensible words as well. This longer version was based upon the same sources as the De inventione text, as a comparison with the texts quoted in the Appendix to Chapter IV shows (in one of those texts the original compiler also found mention of the Chaldaeo-

Assyrian and Egyptian alphabets which may have led to the inclusion of these two). The introductory texts even allow us to decide to which of the two De inventione versions the Vatican compilation is most closely related : the fact that Hebrew is 'the mother of all languages' (in the first paragraph we have probably to read linguarum for litterarum) and the expression per Moysen data sunt show that the Vatican manuscript comes closest to our type B (cf. p. 349 f.); this may be due to the use of the same sources rather than to direct relationship. At any rate this finding agrees well with the localization of the Vatican manuscript in France.
It is rather tempting to read Normannicum or Normannorum for NORMA, the name of the last alphabet. But the origin of this alphabet is quite obscure, and all one can say is that it has no connexion with the runes, even if a couple of names remind one of rune-names : aschot : xsc; berit : berc (beric ?); menu: mann; nut : ne(a)d (in Continental alphabets also nod, not); sutiltu: sugil. H. Harder (1) has made an interesting if not fruitful attempt to prove that this alphabet was in fact based upon a runic alphabet, the names being distorted rune- : names. By eliminating or shifting a number of letters he obtains a more or less runic list of names, whilst the eliminated letters, read in the right order, give the following warning to the reader: Tuto te peto / tu totum muta / ne fide te foppet. But to obtain this more or less appropriate and comprehensible warning, Harder has to 'reconstruct' such rune-names as $f i u$, hail, laku, quon, not found in the other versions of the 'Hrabanic' alphabet from which he starts (2). There can be no doubt that this alphabet may be due to what Harder calls
(1) H. Harder, Zur Frage der hrabanischen Alphabete, 188 f.
(2) Harogr obviously wanted to prove too much, as the following extracts
show: Als Urheber des Scherzes hat Tuto seinen Namen nicht nur in der ersten Zeile verateckt aschot ceaut sondem auch in der dritten nur in der Auszerdem findet sich die erste Silbe seines Namens noch in terut, sutiltu (why not twice here : sutilu?), weal zepput Die Form foppet etat eine (why not twice here : sumilut), tucal, zepput.... Die Form foppet setzt eine scherzhafe gebildete lateinisch-deutsche Mischvokabel foppare voraus...
Hinweisen mbchte ich noch darauf, dasz der lateinische Spruch in jeder Zeile Stabung enthalt ... Obwobl wir keine regelrechten germanischen Stabreimverse vor uns haben, wird doch der Spruch vermutlich in einer Zeit entstanden sein, als der Brauch des Stabreims noch geübt wurde" (o. c., p. 189).
" Der Spieltrieb eines Mönches"; the inventor may occasionally have sought and found inspiration in a list of rune-names; but Harder's reconstruction has no serious basis, for a glance at the other alphabets shows that the 'Norman' names may very well contain mistakes, and one or two would suffice to upset the carefully concealed warning ( r ).
The runic alphabet is in many ways superior to the surrounding alphabets; it cannot be far removed from the fuporc prototype. On the other hand it is not very likely that it should be an addition by the scribe himself : we shall see that a couple of mistakes at any rate prove it to be a second hand copy.
The inscription RUNAS is probably to be 'understood as a Latin accusative plural, which reminds us of the plurals encountered in the introductory texts (2). The alphabet itself shows the following forms and names:

##  <br> aac berc cen daeg eeh feh geos hegil iís calc lago

 $\mathrm{Mr}_{\mathrm{n}} \mathrm{N}_{0} \mathrm{H}_{p} \mathrm{doq}_{q} R_{r} \eta_{s} \uparrow_{t} f_{u} Y_{x} M_{y} \chi_{z}$ moun need oos pear yymoth raad sigil tu ur ilith ir gaar Fig. $3^{8}$$a$ : the name aac keeps the OE. spelling, with double aa indicating the quantity (aac occurs six times in the Epinal, Erfurt and Corpus glossaries).
$b$ : the OE. form berc without breaking points to an old prototype, or to an Anglian source (3)
$c$ : the rune is drawn in a more diffident way than the other
(1) There can be no doubt that these 'Norman' names were not created by the scribe of the Vatican manuscript : ptti and $x r i$ are no very likely inventions; the acrostic principle has been abandoned in six cases : $\mathrm{g}=$ hilod, $h=$ terut, $l=$ anau, $u=y$ fel, $x=s y m o l, y=x i$.
(2) OE. rün was probably a fem. $\delta$-stem, which could be easily Latinized to a Lat. $\bar{a}-\mathrm{stem}$. As ${ }^{*}$ rün- forms fem. nouns in all Gmc. languages, there can be no question of interpreting nunas as an OE. masc. plur
(3) E. Sugyers - K. Brunner, Altenglische Grammatik, 120 A. I.
runes, so that it looks identical with the scribe's minuscule $h$. The name cen is the normal OE. form.
$d$ : this rune is clearly distinguished from the $m$, the intersecting strokes in the former being placed lower. The name probably retains the OE . spelling ( $=d æ g$ ).
$e$ : the name eeh is rather surprising: OE. eh should be expected to have short $e$. But long $\bar{e}$ may have developed in case forms where intervocalic $h$ was dropped, especially in Anglian territory ( I ). Alternately one might think of an error for ech or for eoh (2).
$f$ : the rune is inclined to the left. The name feh is Anglian. The difference in spelling with the preceding eeh (WS. eoh: $f e o h$ ) may be due to various causes: some degree of inconsistency is to be expected in a list of names which had been copied several times and was. hardly understood by the scribe of our version.
$g$ : the name clearly reads geos. This is probably a mistake for geof, which in its turn may be a Northern form for geaf (3). A form without ending is known especially in the accusative of some Northern texts. Holthausen reconstructs a form geofu (4), but then a mistake for gefo might, rather have resulted in geof $>$ geos.
$h$ : in hegil e points to a non-West-Saxon origin, whilst final $-i l$ (for $-e l$ or $-l$ ) is an archaic feature ( 5 ).
$i$ : in this name too double spelling indicates the length of the vowel.
$k$ : both the rune and the name calc are pure OE.
$l$ : the way in which the $l$-rune was drawn shows that the
(1) E. Sigvers-K. Bronngr, Altenglische Grammatik, $\$ 129,2$ and note 5 (p. 112 f .).
(2) This is the solution proposed by F. Holthausen, Altenglische Runen namen. Perhaps one might also think of the merging of $e$ (value) $+e h$ (name) cf. the next name feh.
(3) E. Survess-K. Brunnkr, Altenglische Grammatik, $\$ 35$ A. 1.
(4) F. Holthausen, Altenglische Runennamen.
(5) E. Sigvers-K. Brunner, Altenglische Grammatik, § 152.
scribe had no great understanding for this type of writing Cf. $f, t, u$.
$m$ : the name moun is in all probability mistaken for monn. This monn is the more common variant for mann in the Anglian area, and also in Wessex and Kent till the ninth century ( I ).
$n$ : here too double spelling indicates the length of the stem vowel; nēd is the usual form corresponding to WS. nead, nied.
$o$ : the name cos, repeated by a later scribe, is probably a mistake for oos (cf. Trier MS. R III 13 cos, Vatican MS. Urbin. 290 eos); same spelling device as in aac, iis, etc.
$p:$ it is difficult to account for the form pear, as the rune-name itself has a somewhat uncertain status. An original ${ }^{*}$ peor[d] seems to be the most likely starting point. Cf. perhaps geos (2).
$q$ : neither the form nor the name of this rune have parallels in other runic alphabets, except that the same form is found in Leyden MS. Voss. lat. F. 12 . . von Grienberger explained the name yymoth as a mistake for ${ }^{*} q u e o r t h$ (with suprascript $r$ ), which enabled him to connect it with the OE. rune-name creord (3). There is, however, a far more likely explanation. In the 'Chaldaean' and 'Assyrian' alphabet we find a character for $q$ that is identical with this so-called rune; its name is quimot. In the corresponding alphabet of Cotton MS. Domitian A 9 the name is gymith, in Munich MS, 14436: quimit, in Avranches MS. 107 quimithi. There can be no doubt that the pseudo-runic $q$ is in fact no other than the pseudo-Oriental character; yymoth is a mistake for gymoth.
$r$ : the name has the usual double spelling of the stem vowel (cf. Corpus gl. 129 alveus: streamraad).
(1) E. Sibvers-K. Brunnkr, Altenglische Grammatik, $\$ 79$.
(2) The mixing up of ea and eo may be an additional indication of a Northern origin: E. Sisvers-K. Brunnkr, Altenglische Grammatik, §35 A 1. (3) T. von Gruanderger, Die angelsachnischen runenreihen, 34; cf.
F. Holthauske, Altenglische Runennamen.
$s$ : the unrounding of $y$ to $i$ before palatal $g$ occurred at an early date ( x ), hence sigil $<\mathrm{sygil}$; for $-i l \mathrm{cf}$.$h .$
$t$ : the name of this rune was certainly intended to be $t u$, not $t i i$. Tii, however, was in all probability the original form (for the spelling cf. Titg : Mars, Martis Epinal-Erfurt gl. 663, Corpus gl. 1293) (2).
$u$ : this and the preceding rune reveal the scribe's ignorance of runic writing, or at any rate his lack of training; ur is the normal OE. name.
$x$ : The vocalism of ilih is comparable with that of ilix in Brussels MS. 9311-9319 and ilcs in Vienna MS. 795 (these two being genitives *ilih-s, *ilh-s); I cannot see any reason for reconstructing a name ilch, as Holthausen seems to propose.
$y$ : as in sigil, the $y$ may have been unrounded to $i$. But since this change is against the acrostic principle, ir will rather be a spelling variant for $y r$. The rune itself shows a curious malformation.
$z$ : here I must refer to other cases where $\overline{\mathbf{g}}$ or its name appear : in the place of $z$. In the runic alphabet of Munich MS. 19410 and in the so-called 'Arabic' alphabet of Munich MS. 14436 we find a rune-name caar (in the former it is written $c a^{\prime} a^{\prime} r$ ). In the former of these two alphabets this caar is inserted between the names of the $a$-rune (ag) and the $b$-rune (beric); no corresponding rune is written below it, but at the end of the alphabet (i. e. taking the place of $z$ ) we find a $k$ (or a reversed $x$ ) without name. In the 'Arabic' alphabet the $a$-rune is followed by a $\overline{\mathbf{g}}$ with value $a$ and name caar; in this alphabet there is no $z$-rune at all. To these anomalies we may possibly add the name zar in Vienna MS. 751 ; perhaps also the use of $\overline{\mathbf{g}}$ for $k$ in Exeter MS. 3507, etc. The assumption that at one time the gar-rune was chosen to take the place of $z$ seems to fit all
(1) E. Sieverg-K. Brunner, Altenglische Grammatik, § 3i A. 2.
(2) Hence it is not necessary to reconstruct a form tir, as F. Holthausen, Altenglische Runennamen, proposes.
these cases equally well, but it is not so easy to find the reason for this choice. We may first think of a sort of mechanical accident : the insular $g$ of the rune-name gar may have been interpreted as a form of $z$, resulting in the name $z a r$ and the transfer of the rune to the last place in the alphabet. Or else the rune $\overline{\mathbf{g}}$, not having found its way into the alphabet, was used for $z$ (to which no rune corresponded anyway); the fact that $\overline{\mathbf{g}}$ occupied one of the last places in the fuborc may also have played some part. The other solution was as follows: OE. gar (or gaar, indicating the length of the vowel, cf. nabogaar 'terebellus' Corpus gl. 2002, nebugaar 'id.' Leyden gl. r96, gaarleec ' al[1]ium' Corpus gl. ri3) may have been written caar (I) by a scribe who spoke an Upper German dialect (cf. cast $=$ gast). But in OHG. spelling $c$ also rendered the affricate (usually written z), mostly before $e$ or $i$, but also elsewhere (2); and thus caar could be interpreted as the name of the $z$-rune. This explanation would account for caar in the two Munich alphabets as well as for zar in the Vienna list of names, but precisely the Vatican alphabet offers a difficulty at this point : the value of the $\bar{g}$-rune is $\bar{z}$, but the name retains the original OE. form gaar. With the first solution this difficulty can be avoided.
Here we have to choose again between various possibilities. Either the scribe of the Vatican alphabet restored a zaar or caar of his exemplar to gaar; but this is not very plausible, for then he would certainly have corrected geos and pear too; and the other names show no such traces of Continental Germanic influence as would justify a hypothetical form caar or zaar in the exemplar. Or else the gar-rune took the place of $z$ because the alphabetizer found no other solution. Then the next question is : are
(x) The use of $\overline{\mathbf{g}}$ for $\boldsymbol{k}$ would then represent an intermediate stage.
(2) W. Braune, Althochdeutsche Grammatik, $\$ 159$, note 2 (p. 141): " nur selten, in uncorrect geschriebenen glossen u.dgl., begegnet $c=z$ (auszer vor $e, i$ )"; one would prefer a statistical survey of the $c$-spelling to this censure
of OHG, acribal habits. of OHG. scribal habits.
the other alphabets which use gar for $z$ connected with the solution offered by the Vatican alphabet? In other words, do these three lists go back to one attempt at alphabetization? One glance at the two other runic alphabets and at the Vienna name-list shows that they represent independent alphabetizations. So we must conclude that several scribes came to the same result, perhaps (not to say probably) by different ways ( 1 ).

There can be no doubt that the scribe of the Vatican manuscript, even if he was an Englishman, knew very little about the runes. His characters show clearly how uncertain he felt in handling them; the names geos, moun, cos, pear prove that his knowledge of the language was not scholarly, as could already be inferred from his Latin text. He seems rather to have copied mechanically, and probably not without adding a couple of mistakes of his own.
On the other hand it is clear that the underlying fuporc must have been far correcter and quite archaic; it may easily have been from one to two centuries older than the Vatican manuscript. No other list of rune-names uses consistently doublespellings to indicate the length of the vowels (aac, iis, need, *oos, raad, *tii, gaar); only older OE. manuscripts use this device with some consistency (2). As a matter of fact no other list of rune-names, neither fuporc nor alphabet, presents such archaic features. This seems to have escaped Harder's notice when he tried to normalize the rune-hames. There are some indications that the fuporc came from Anglian territory.
Apart from $s=$ gar and $q=$ yymoth, the alphabetizer seems to have met no difficulties. The solution he chose for $q$ proves that the alphabetization was performed after the other alphabets had been collected; for there he found a substitute for the
(1) The fact that the Munich manuscripts do not connect the name ca(a)r with the rune $\overline{\mathbf{g}}$ indicates what devious paths the alphabetizers may have chosen.
(2) E. Sirviks-K. Brunnkr, Altenglische Grammatik, § 8.
missing $q$-rune. It is quite possible that he worked on the Continent, as the collection of alphabets enjoyed some popularity there. From the poor state of the texts and the runenames we may infer that the Vatican collection is several removes from the original. The fuporc used by the alphabetizer must at least have had thirty runes (fig. 39).

11. Paris, Bibliothèque de l'Arsenal, MS. rr69 (saec. X/XI).

Thus far this manuscript has been studied mainly for its binding, its miniatures and its liturgical contents. The runic alphabet, though mentioned in the catalogue of the Arsenal library, seems never to have been edited. It is of special importance because it presents features which will return in most of the late runica manuscripta (Mandeville, Wyss).
The binding consists of an ivory plaque (saec. III) sawed in half. The fine parchment is well preserved; 57 folios are arranged in 7 quires : 4 IV
$(1-32)+$ II $(33-36)+2 V(37-56)+i$ fol. Format : $167 \times 60 \mathrm{~mm}$ (written $(1-32)+11(33-36)+2 V(37-56)+1$ fol. Format: $167 \times 60 \mathrm{~mm}$ (written
area on the average $130 \times 45 \mathrm{~mm}$ ); 20 to 22 lines to the page. Written by area on the average $130 \times 45 \mathrm{~mm}) ; 20$ to 22 lines to the page. Written by
several hands; between 996 and rove as appears from acclamations for Robert King of France ( 996 -1031) and for Walter, Bishop of Autun ( 977 -roz4) possibly in Autun.

## Contents (1):

fol. $\mathrm{I}^{\text {r }}$ Incipiu
${ }^{\mathrm{I}^{\mathrm{r}}}$ Incipiunt tropi cum laudibus : the tropes for the liturgical cycle, from Christmas to Michaelmas.
$39^{\text {r }}$ (inserted in this cycle) a brief extract on music; Latin written with Greek and pseudo-Greek characters.
in the left-hand margin, a runic alphabet; in the right-hand margin 4. a fragmentary prosary
(1) Catalogue général ... Biblothèque de l'Arsenal II, 320. Cf.
L. Gautirr, Histoire de la poésie liturgique (Paris 1886), 126 f.

Fol. $39^{v}$ contains liturgical texts with musical accents; the first five lines are clearly visible, but the rest of the page has much faded. The scribe who wrote the upper part may also be responsible for the two alphabets in the margins ( 1 ).
The runes extend from the very top of the page to $1 .{ }_{15}$, i. e. a height of ca. 110 mm . Their size varies from 2 to 5 mm . The letters of the Roman alphabet do not exactly face the corresponding runes : $A$ faces $b, Z: s$. Yet there can be no doubt that the two alphabets belong together; the discrepancy seems simply due to a miscalculation of the copyist. He may have inserted the runes after his interest in strange alphabets had been aroused by the text on $39^{\mathrm{r}}$.

The runes are written in the outer margin, very close to the edge of the page. Frequent handling has soiled the margin, and as a result the runes are somewhat obscured. Their reading, however, has hardly been impaired :


As soon as we assign a value to each rune, we are struck by an anomaly : beginning with $h$ all values have been shifted one place in the direction of $a$. The explanation is obvious : there are two $g$-runes. In the manuscript the two alphabets are so far apart that the anomaly becomes apparent only upon closer inspection. It is quite possible that the scribe was not aware of it; he was probably copying from an older exemplar; if he had any knowledge of the runes, it must have been slight indeed. As a result of his oversight, there is no rune for $z$. It was probably left uncopied after the number of twenty-three
(1) Mr. J. Boussard, Conservateur-adjoint of the Bibliotheque de l'Arsenal,
kindly informs me that the runes are probably written in the same ink as the kindly informs me that the runes are probably written in the same ink as the upper five lines of the page.
runes, corresponding to the twenty-three letters of the Latin alphabet, had been reached. Of course we cannot decide whether this omission is due to the scribe of the Autun manuscript, or whether he found it in his exemplar. In the following discussion of details the values are tacitly restored to their respective runes.
$a$ : the rune stands in a rather worn corner of the page, but there can be no doubt that a was intended.
$c: I$ can find no trace of the side-stroke on the photograph at my disposal; it was probably omitted in the process of copying.
$d$ : the distinction between this rune and m has been extraordinarily well preserved : d has the intersecting strokes at about middle height, with $m$ they start from the top of the vertical shafts.
$g$ : the first $g$-rune is in fact $\bar{j}$, the second $\mathfrak{j}$; the regular $g$ does not appear here, but cf. $k$.
$k$ : at first sight the runic form which fills the place of $k$ looks identical with $n$, but closer inspection shows that the slanting cross-stroke has longer serifs in $k$ than in $n$. This leads us to the assumption that the $k$-rune is in fact ag of the type found in the isruna fuporc, in which the outer ends of the broken line have been reduced to serifs. The choice of a g for $k$ may be an indication of High German influence. Usually it is the $j$-rune that takes the place of $k$, the OE. name ger being interpreted as OHG. ker. As there are no other traces of High German phonology, this indication has only a relative value.
$q$ : the rune which takes the place of $q$ is either $\mathbf{x}$ or, more probably: a $k$ turned upside down. The runes $\mathbf{x}$ and $\mathbf{k}$ were occasionally mixed up, cf. Exeter MS. 3507, etc.
$x$ : in other alphabets this rune is found with the value $y$ (e.g. in Munich MS. 14436). According to the isruna fupore it is a variant form of the $y$-rune; on account of the name ing it may have been chosen to take the place of $y$. Here it fills the place of $x$, which may be explained in two
ways : either this $y$-variant was used for $x$ because the regular $\mathbf{x}$, having been mixed up with $k$, had received the value $q$; or else it is simply a doublet for $y$ (cf. next).
$y$ : the normal OE. $¥$ takes the place of $y$. We may then have doublets, just as in the case of $g$. But here we cannot know for sure whether they were originally intended as variants of the same rune; in the case of $g$ the inclusion of a second rune caused the values of all the remaining runes to move one place forward. The two $y$-runes may originally have been variant forms for $y$; but then there is no symbol for $x$, or it must have been omitted, cf. the case of. $z$. At this point it is difficult to decide how the alphabetizer actually proceeded.

There can be no doubt that this alphabet is derived from an expanded English fuporc, even if only one of the new runes is included ( $o$, and also $q=\mathbf{k}$ ?). At any rate it does not continue a local tradition of which the inscriptions of Charnay and Arguel might be remnants ( r ). The use of a $g$-rune for $k$ may imply that the alphabetizer spoke High German. In view of $n$ the connexions of Autun with cultural centres in South Germany, the presence of this runic alphabet in a manuscript of Autun would not be surprising. As to the underlying fuporc, it is puzzling in one point : no other fuporc has come down to us with two forms of the $y$-rune (in Domitian A 9 the type with two cross-strokes is a variant of $h$ ). The runes for $k$ and $x$ may prove that our alphabet is related with the isruna group.
12. Munich, Bayerische Staatsbibliothek, Lat. MS. 14436 (saec. XI in.).

This codex is of special interest because it embodies at least three different runic traditions, two of which we have met before. Moreover we know something about its origin, and
(x) H. Arntz-H. Zriss, Runendenkmalter, 173 ff. (Chamay)
J. A. Bizst, L'inscription runique d'Arguel. Etudes germaniques 3 (1948) 1-12.
this still increases its value: few are the instances where we have more than internal evidence for the prehistory of the manuscript runes.
Thus far the manuscript has been studied mainly as a source for the history of Mediaeval science (1). Part of it was collected, and part written, by one Hartwic, monk of the Abbey of St . Emmeram in Regensburg (2). This Hartwic studied for some time in Chartres under the famous Fulbert (1007-1029), perhaps also in Rheims. On returning to Regensburg he took with him several volumes with texts he had collected during his stay in France. The runic material seems to have been copied by Hartwic himself. It was edited as early as $\mathbf{x 7 5}$, but seems never to have been properly connected with its background (3).
The codex consists of 119 folios, the original order of which was : 1-9 $83-119,10-62$ (into which $33-34$ have been inserted), $67-82,63-66$.
Format (after cropping) ca. $243 \times 192 \mathrm{~mm}$ (written area $195 \times 140 \mathrm{~mm}$ ); 33 lines to the page. Partly written by Hartwic (int. al. fol. 1), partly by elated hands.
Contents: (4)
fol. $\mathbf{I}^{\mathrm{r}}$ Seven alphabets (details infra).
$\mathrm{i}^{\mathrm{v}-9,} 83$-108 Rhetorica ad Herennium in VI libros.
10-32, 35-58 Macrobius, In Somxium Scipionis libri II.
58-6x Excerpts from Pliny, Naturalis historia II, 8; 21 f.; 15-18.
$6 \mathrm{I}^{\mathrm{v}}$ Catalogue of books.
32 Epistolae Senecae ad Paulum apostolum et ad Senecam Pauli 34 Fragment on the quantity of syllables.
(1) H. P. Lattin, The Eleventh Century MS Munich 14436: Its Contribution to the History of Coordinates, of Logic, of German Studies in France. Isis $3^{8}$ (1947/8), 205-225.
(2) B. Bischoff, Literarisches und kiinstlerisches Leben in St. Emmeram (Regensburg) während des frïhen und hohen Mittelalters. Studien und Mit teilungen zur Geschichte des Benediktiner-Ordens und seiner Zweige 5 (1933), 102-142.
(3) J. G. Eccardi v. c. de Origine Germanorvm eorvmque vetustissimis coloniis nigrationibvs ac rebvs gestir libri dvo ... edidit, figuras aeri incisas adiecit et
praefatus est C. L. ScHmbws. Goettingae MDCCL. Facsimile on Tab. praefatus est C. L. SchBiovs. Goettingae MDCCL. Facsimile on Tab. XIV, facing p. 188. The manuscript had been used by Johann Turmaie
(Aventinus) as early as 1532 , see P. Lermann, Mitteilungen aus Handschriften (Aventinus) as early as 1532, see P. Lermann, Mitteilungen aus Handuchriften sophisch-historische Klasse 1939, Heft 4) and H. P. Lattin, o..., 209.
(4) Catalogus II, 2, 172;
H. P. Lattin, The Eleventh Century MS Munich 14436, 206.

67-82, 62-66 Boethius, Commentorum in ysagogas Porphyrii liber I (end missing).
108-113 Julius Severianus, Praecepta artis rhetoricae; Julius Victor, De memoria.
$1_{3}$ Bede, De temporum ratione, c. I (Loquela digitorum).
114 Gerbert, De numerorum divisione.
$115^{\top}$ Bede, De temporum ratione, c. IV (De ratione unciarum); Commentary on Gerbert's Regula abaci.
117 Herigerus, Regularum pars 1 (fragment).
118 Rhetorical fragment.
Hartwic, Vita et laudes S. Emmerammi.
The seven alphabets on fol. $\mathrm{I}^{\mathrm{r}}$ are written side by side in vertical columns. Above each there is an inscription. The first two of these inscriptions were partly removed when the upper margin was cropped. Moreover the right top is rather badly spotted by moisture; part of the last alphabet can only be read with difficulty. After the alphabets were written, the right and lower margins were filled with diagrams which form a more or less logical concatenation (e. g. Vox $=$ significatiua : non sig[nificatiua]; Significatiua $=$ naturaliter: secundum plac[itum], etc.) (plate VI).
(a) The first alphabet is inscribed Hebraice. It is a Hebrew * alphabet of the type current in Western Europe in that period. The compiler seems to have had two different versions before him, for he adds variant forms for a number of letters (beht, gimel, he, uau, zai, thet, mem, chaph [chi, $h]$ ). This he explains by a note below the alphabet: Sunt quedam / litterę in isto / alfabeto bifor/mes. The doublets probably indicate where the two versions at his disposal did not agree. In this and in all the following alphabets, the values are written to the left of the letters and the names to the right.
(b) The alphabet called 'Syriac' (MS. siriace) consists entirely of runes. It ends in $y$, but has twice $i$ and $k$ (cf. infra).
(c) The third alphabet too is purely runic, although the inscription styles it as 'Arabic' (Ara[bum?], not Arabice as Eccardus and all authors after him read). It ends in $x$, but has two $a$ 's, $b$ 's and $n$ 's (cf. infra).
(d) (e) (f) The 'Egyptian' (Egiptiace), 'Gothic' (gothorum) and 'Chaldaean ' (Chaldaice) alphabets belong to a group of fanciful alphabets briefly treated in the Appendix. Below the Egyptian and Gothic alphabets there is a note : pares nominibus sed / figuris differentes.
(g) The last alphabet, purporting to be used by the Alans (Alanice), was never completed. The letters go as far as $t$, the values end with $r$ and only six names are given $(b-g)$. These names are identical with those of the Chaldaean letters, but amongst the characters several are doubtlessly runic (cf. infra).

The first runic alphabet looks as follows :
ac bergcen dom ear feu gebohagal is calc ker $k i$
 lago man nod odilperdqur rat sigo tac uur elux inc


$$
\text { Fio. } 4 \mathrm{x}
$$

A comparison with a typical isruna fuporc shows immediately that we have here an alphabetization of such a fuporc. The form of $g$, the use of $p$ for $q$, the special type of $\mathfrak{g}$ are unambiguous proofs of this relationship. A few letters underwent alterations in the course of their transmission : $f$ has a spurious horizontal stroke added at the lower end of the shaft; in the first $k$ (i. e. the $j$-rune) the lower end of the shaft is missing; the lateral strokes in the second $k$ and in $l$ are curved; $o$, too, has a spurious addition to the right; $r$ looks almost like an English $y$-rune.
For most letters the alphabetizer's task was an easy one : a, $a c$ for $a ; \mathbf{b}$, berg for $b ; \mathbf{c}$, cen for $c ; \mathbf{p}$, dorn for $d ; \mathbf{f}$, feh for $f$; g , gebo for $g ; \mathrm{h}$, hagal for $h ; \mathrm{i}$, is for $i ; 1$, lago for $l ; \mathrm{m}$, man
for $m ; \mathbf{n}$, nod for $n ; \mathbf{p}$, perd for $p ; \mathbf{r}$, rat for $r ; \mathbf{s}$, sigo for $s$; $\mathbf{u}, u \boldsymbol{u r}$ for $u ; \mathbf{x}$, elux for $x$.
$a$ : the alphabetizer must have had before him a fuporc which did not mix up $x$ and $a$, as a retains its original name $a c$ (in all the isruna fuporcs these two runes, and their names and values, are confused).
$e$ : here he could choose between $\mathbf{e}$ and ea (eh, ear). He may have preferred the latter because formally e looked too much like M. The form ear shows that his exemplar was more correct on this point too: all isruna fuporcs have aer, and give the value $z$ to this rune.
$i:$. unlike the related fuporcs, the alphabet spells the name with single $i$. In uur, however, the double $u$ has been retained. The second variant for $i$ is puzzling : the name calc rather points to a variant for $k$. The form of the rune we found in only one fuporc, that of St. Gall MS. 878, where we interpreted it as a regular $\mathbf{k}$ doubled. No isruna manuscript has this type, so Hartwic may have found it in one of his other sources. The value $i$ must be due to an oversight, unless the rune had received the value $y$ at : some previous stage; cf. ir in Vatican MS. Regin. 338 and the use of the same rune in Exeter MS. 3507, etc.
$k$ : Hartwic's first $k$ goes back to a $j$-rune. In the isruna fuporcs the name was still ger, but then it must have undergone the same treatment as depicted for Munich MS. 19410: ger $>k e r$, hence the value $k$.
The second $k$ is the $j$-rune, but this transition has nothing surprising. In the isruna manuscripts the name was ih but the value $k$. Hartwic (or the scribe of his exemplar) simply regularized the name according to the acrostic principle : ih $>k$ i.
$o$ : here, too, the alphabetizer could choose, viz. between 0 and $\propto$ (oos, odil). Perhaps the double oo in the former (or a mistaken eos, as in Vatican MS. Urbin. 290, or cos as in Trier MS. R. $\mathrm{III} \mathrm{r}_{3}$ ?) led him rather to take the unambiguous rune with name odil.
$p, q:$ Hartwic's prototype must have agreed with the other isruna fuporcs in exchanging the values (and names) of $p$ and $q$. His qur is the only name in the whole tradition that conforms to the acrostic principle ( St . Gall, Brussels $y u r$, Trier cur, Urbin. ru ?).
$r$ : for the value Hartwic first wrote $s$, then corrected it to $r$. The rune itself looks rather like the $y$-rune. Does this mean that at one time that rune really occurred in the isruna fuporc ? Cf. p. 124.
$s:$ a truncated sigi meant nothing to Hartwic or to the scribe of the prototype, and was 'corrected' to sigo $(=\mathrm{OHG}$. id. ' victory').
$t$ : here is another deviation from the isruna model. The latter had two $t$ 's: one was the regular $t$-rune ( $t i$ ), the other an original $d$-rune, the name of which had been germanized ( $d x g>t a g$ ). In Hartwic's alphabet the two have been combined: the name tac (i. e. the Upper German form corresponding to tag) + the original $t$. This combination was not necessarily invented by Hartwic : some contamination may have occurred in the exemplar, cf. $\tan$ in the Trier fuporc.
$x$ : at this point Hartwic seems to have combined two different traditions. In the isruna fupore the original $x$ had been dropped in favour of a Roman X, which was anyway identical with the regular g. From that fuporc Hartwic only retains the name, elux. The form of the rune is typical of the De inventione alphabet. As we shall see, there are other cases where Hartwic borrows from this source. Cf. Vatican MS. Urbin. 290, where the two traditions also meet.
$y$ : the choice of $y$ to fill the place of $y$ is not unique : cf. Arsenal MS. 1169, where two variants of this rune occur, one for $x$ and one for $y$.

The so-called 'Arabic' alphabet is still more composite :




$a$ : the rune and its name may either come from an isruna fuporc or from a $D e$ inventione alphabet.
$(\overline{\mathrm{g}})$ : the second $a$-rune is the gar-rune, with the same transfer as in Munich MS. 19410, q.v.
$b$ : the first $b$ looks rather like a Greek $\pi$, but this can hardly be its origin. Perhaps it goes back to a Swedish-Norwegian $b: \neq$. The name birca is a Low German form. We find a strikingly similar brica (i. e. *birca) as a rune- * name in the Abecedarium Nordmannicum. The name of the second $b$ (i. e. the original rune b), berih, looks like an adaptation of beric, the form we met in Munich MS. 19410.
$c$ : the rune has the English form, but the name caon is the rendering, by a German scribe, of ON. kaun, the name of the $k$-rune. The spelling $a o$ is a typical Bavarian way of rendering Gmc. *au before a dental (1). As this spelling disappears in the ninth century, one may perhaps conclude that Hartwic's prototype reached Southern Germany not later than shortly after 800. The Abecedarium has chaon, with Upper German initial.
$d$ : formally the rune goes back to $\mathbf{p}$; the name must be a' mistake for dorn.
(1) W. Brauns, Althochdeutsche Grammatik, § 45;
J. Schatz, Altbairische Grammatik, § 12.
$e$ : the forme of the rune is rather puzzling : the vertical strok is drawn so faintly, that it looks as if the writer had had some doubts. If the rune may be interpreted as $\bar{j}-I$ see no other plausible explanation-we can only connect it with iar, ior in the English fuporcs of Cotton MSS. Domitian A 9 and Galba A 2. Both in OE. (x) and in OHG. (2), io and eo are often almost variant spellings, therefore the spelling eor need not cause any difficulty. Cf. under $i$.
$f$ : the rune seems to have been tampered with; yet we may be certain that it is not an f-rune of any sort. It rather looks like the $f$ in the so-called Egyptian alphabet. The name is identical with that in the Abecedarium.
$g$ : we found the name geuo in Munich MS. 194ro, q.v. The rune itself has the additional horizontal stroke typical of the De inventione $g$.
$h$ : the name is identical with the form we reconstructed from Munich MS. 19410: heih <*heil. This proves that Munich MS. 19410 cannot have been Hartwic's source; he rather used a version derived from the same prototype. The form of the rune reminds one of $\mathbf{j}$, but the vertical stroke does not go down all the way. As a similar form is found for $e$, we cannot decide whether the vertical stroke is a spurious addition (in which case we would have the $h$ of the De inventione alphabet) or whether it should have the full height (then we should rather think of the Danish $h$, which is formally identical with the English $\mathbf{j})$.
$i$ : both the form and the name of this rune are enigmatic. Perhaps the normal English $\mathbf{y}$ is the prototype from which this $i$ derives. The name ios, however, goes back to ior rather than to ing (3).
(1) E. Sigvkrs-K. Brunnkik, Altenglische Grammatik, $\$ \S$ 35, 38
(2) W. Braune, Althochdeutsche Grammatik, $\S \S 15 \mathrm{c}, 47,48$.
(3) W. Krause, Untersuchungen su den Runennamen I, 63 , proposes to connect Fundamentally I have no objection against assuming ON. infuence also in 258
$k$ : the $k$ has a form which is typical for the De inventione alphabet. The name belongs to another rune : keir is probably a variant of $k e r$, the name of $k$ in the 'Syriac alphabet'. But then the diphthong $e i$ remains unexplained : Gmc. *ai before $r$ becomes OHG. e. I believe we can explain keir only by assuming that it was influenced by geirr, the ON. equivalent of OE. gar, OHG. ger 'spear'.
$l$ : the rune shows a spurious addition; the name looks utterly corrupt. In connexion with his theory on the name of this rune (supposed to be *laukaz, not *laguz), W. Krause would accept this lin as a true ON. form : it would have become the name of 1 through some sort of an erroneous abstraction from magic formulae such as lina laukaR on the Floksand scraper and lini gœddr ok laukum studdr in one of the Velsi stanzas (1). This solution looks so farfetched that I prefer von Grienberger's (lin mistake for lac, cf. e. g. Paris MS. 5239), although it is not entirely satisfactory (2).
$m$ : the name $m e n$ is unique; why this apparent plural (OE. $\operatorname{men}(n)$, ON. menn) should have taken the place of $\operatorname{man}(n)$ I fail to see, unless it may be explained as a mistake for $\operatorname{mon}(n)$.
$n$ : the first rune shows the Norse ( ?) type, with the cross-stroke slanting to the left; the name is a transparent adaptation of ON. naup(r). The second $n$ is that usually found in OE. fuporcs and the name net is a German's interpretation of OE. (non-WS.) ned. The occurrence of these two runes side by side is very important for our understanding of the structure of this alphabet.
this case, but there is another difficulty: in the shorter Scandinavian fupark the $e$-rune was dropped, consequently $i 6$ was no longer a rune-name. Then we must assume one of two possibilities : either the OE. rune-name eoh was ranslated into ON., or else the ON. rune-name was still known as such by the time the alphabets were
complicates the explanation.
(1) W. Krausb, Untersuchungen su den Runermamen I, 63.
(2) T. von Grienderger, Die angelsächsischen runenreihen, 22.
: the last letter of the name looks almost like $f$; but even if Hartwic really wrote of, we have of course to interpret the name as an original os.
$p$ : the final $n$ of pern may go back to $t$; then we have a simple adaptation of OE. perd (perd) to OHG. phonology.
$q$ : the rune may either be compared with that in Harley MS 3017 (p. 216), or else it may go back to a Norse $k$-rune. The name quor reminds us of quar in Oxford MS. St John's College 17
$r, s, t$ raise some involved problems. For $r$ we find a typical De inventione r but the name belongs to the $t$-rune and may be connected with tir in Munich MS. 19410. Formally $s$ is almost identical with the $p$-rune (i.e. $s+a$ spurious curved stroke?); the name is that of the ON $s$-rune, sol, and must have come from the same source as caon, etc. As to the third rune of this group, one might feel inclined to identify it with the younger SwedishNorwegian $t$-rune, but that is turned the other way round (1). Moreover the name does not support this explanation : tau seems rather to be borrowed from a Hebrew (or Greek) alphabet (2). A similar $t$ occurs in the cryptic alphabet of Vienna MS. 751, where its runic character is more than doubtful. In the 'Alanic' alphabet of Munich MS. 14436, the $s$ has almost the same form. On the whole, the chances that this $t$ is a rune are slight.
$x$ : the rune shows the same type as that in Munich MS. 19410; the name elx is the Anglian form (*elhs) corresponding to WS. Kent. eolhs.

$$
*^{*} *
$$

The 'Alanic' alphabet is again composite. The six letternames $(b-g)$ are identical with the names of the corresponding Chaldaean letters. The alphabet itself ends with $t$, but the
(i) O. von Fribern, Runorna, 84, 146.
(a) The name tau may perhaps remind us of tan in the Trier fuporc; but this comparison does not enable us to explain the character itself
values are only indicated as far as $r$. It looks indeed as if the compiler intended to make a seventh alphabet out of material not included in the first six alphabets, but then gave up the attempt. Some of the Alanic characters are decidedly nonrunic : $a, b, c, e, f, q$ and $s$ rather belong to some or other fanciful alphabet ( $x$ ). The remaining letters show a more or less obvious resemblance to runic characters : $d=\mathbf{d} ; g=\mathbf{j} ; h=$ a degenerated $\mathbf{h}$ (?); $k=\mathbf{j}$ (the square form as opposed to the rounded form which takes the place of $g$ ); $l=$ a somewhat distorted $1 ; m=\mathbf{m} ; n=$ either the English or the Norse type of $n$-rune; $o=\boldsymbol{c} ; p=$ a $p$-rune closed by an additional vertical stroke (?); $r=$ an $r$-rune of the De inventione type (cf. Vienna MS. 1010 etc.); $t=$ a $t$-rune with lengthened lateral strokes. As to $i$, it may perhaps be interpreted as derived from the $n$ variant with two transecting strokes.

$$
*^{*} *
$$

We can now make the balance of Hartwic's runological harvest.
a) He had at his disposal a fupore of the isruna type, or an alphabet derived from such a fuporc (on this fuporc cf. p. 122 ff.). In one or two points (ear; also the $x$-rune ?) this fuporc retained primitive features abandoned by the versions of the irruna tract that have come down to us (aer, $z ; x$-rune $=$ g). It may perhaps also have had a $y$, but then with a name so corrupt as to lead the alphabetizer to use it for $r$ (cf. Vatican MS. Urbin. 290: ru?). Another factor may have played a part. As a rule Hartwic (or his exemplar) seems to avoid runic symbols which resemble Roman letters too closely : thus ea takes the place of $e$ (e looking like $M$ ); instead of the $x$-rune of the isruna fuporcs ( $=$ Roman X) we find a type borrowed from a De inventione alphabet. Similarly he may have dropped the $r$-rune (almost $=\mathbf{R}$ ) in favour of another rune which had a name beginning with $r$ or containing $r$. High German
(1) $A$ is rather like the Chaldaean $a$ in Vatican MS. Regin. 338; $b$ may be connected with the corresponding letter in Vatican MS. 266, etc.
influence is evidenced by ker (: ger) and rat (: rad); also sigi $>$ sigo. The evolution of $i h, k$ to $k i$ is hardly surprising. In the name of the $i$-rune the double vowel has been simplified (iis $>i s$ ), but in uur it was retained. Deviations from the isruna type are on the whole exceptional : a $k$-rune of a type known only from St. Gall MS. 878; the combination of the $t$-rune with the name tac (which originally belongs to the $d$-rune) is typical of the De inventione tradition. Five runes and names were superfluous : $\boldsymbol{x}$, asc $; \mathbf{o}$, oos; $\mathbf{w}$, huun; e, eh; d, $t$.
(b) There can be no doubt that Hartwic also had access to a De inventione alphabet, probably even in two different versions. From it he borrowed the $x$ of the 'Syriac' alphabet, and the $g, k$, and $r$ of the 'Arabic' alphabet, besides the 'Alanic' $r$. Since the latter does not represent the same De inventione tradition as the 'Arabic' $r$, we may conclude that the compilation is based on two different versions. The alphabet(s) used by Hartwic may or may not have contained the names of the runes : not one of the rune-names in the Arabic alphabet points necessarily to a De inventione prototype (although asc, pern, ur, and rat and tac in the preceding alphabet may of course go back to such a list), not even the names of those letters which are typical of the De inventione alphabet (elux : Di *elah; geuo: Di gibu; keir: Di kalc, kilc, etc.;)
(c) He must also have had before him an alphabet closely related to that in Munich MS. 19410: a caar, berih, geuo, heil, net and elx are unquestionable proofs of such a relationship. But Munich MS. 19410 itself cannot have been Hartwic's exemplar : he has correct forms where the former shows obvious mistakes. In view of $\overline{\mathbf{g}}$, which is missing in Munich MS. 19410, we must suppose that Munich MS. 14436 goes back to a different alphabetization of the same fupore:
(d) A Norse fupark, or at least a list of names must have been the fourth runic ingredient: caon, feu, naut and sol are undoubtedly Norse rune-names; keir seems to show influence of ON. geirr. It is.rather striking that the name birca, which is rather Low German than ON., should also occur in one of the rare

ON. documents of this period written on the Continent : the Abecedarium Nordmannicum. In that same brief text we find brica, obviously a mistake for birca; then feu, naut, sol, and chaon with Upper German affricate as opposed to caon $=$ the original kaun. It can hardly be a coincidence that Hartwic's calc-rune occurs only in St. Gall MS. 878, precisely the manuscript which also contains the Abecedarium. But here too Hartwic probably used an older source than St. Gall MS. 878 or at least one which retained birca and caon (1).
Of course these various alphabets may have formed one collection when Hartwic came across them; or he may have copied them from different manuscripts and at different moments. We cannot know where the collection as we have it was completed; nor can we decide what Hartwic's sources looked like. From the set-up of the page we cannot infer for sure whether Hartwic had any notion of the real character of the alphabets he was copying. Yet it is quite likely that by ca. A.D. 1000 the runic character of the 'Arabic' and 'Syriac' alphabets had been completely forgotten. Hartwic's collection is an important element for reconstructing the further history of the manuscript runes. No one less than Sir John Mandeville (or whoever may have been the real author of Mandeville's Travels) used a collection of alphabets rather like Hartwic's, cf. the Appendix to this chapter.

## 13. British Museum, Cotton MS. Domitian A 9 (Saec. XI-).

On this manuscript cf. p. 3 ff.; on the runic alphabet p. 8, with full details about the arrangement.
The second line of scratched runes forms an alphabet which, though incomplete (it ends with $\mathbf{p}$ ), must be discussed here. As I pointed out before, there is no way of deciding exactly when these runes were added. They must be older
(1) Hartwic may have found such a source in France. Chartres MS. 214 contained a series of alphabets, the last of which was called litterae Danaorum; but since these letters were also called runae, there can be no doubt that the archetype had Danorum instead of Danaorum. Cf. the Catalogue general...
Departements. T. XI: Chartres, xog.
than the sixteenth century when a reader covered them with his notes; the terminus post quem is of course the date of the fuporc (saec. XI).
The runes are scratched with a sharp implement that cut the parchment. They were apparently made without great care : $b$ is hardly visible; one cannot make out whether $k$ was meant to have one or two cross-strokes.
The alphabet presents no surprising features : the choice of a for $a$, that of $o$ for $o$ was obvious. For $k$ the alphabetizer chose the $k$-rune as drawn by scribe A. From this we may conclude that he preferred A's evidence to that provided by B, or else that he scratched his runes before B 'corrected' the fuporc. Either explanation may be defended, the material being too scanty to decide which of the two is the more plausible. The answer to this question, however, is of minor importance : from the alphabet we cannot learn more than we can infer from the fuporc on the same page.
14. Oxford, St. Fohn's College, MS. 17 (saec. XI ex./XII in.). 15. Cotton MS. Galba $A_{2}$ (saec. XI/XII ?).

On p. 26 ff. we examined the fuporc material in these two manuscripts; here we have to discuss their runic alphabets.
Galba A $2(\mathrm{G})$ gives the values of the runes; the Oxford alphabet ( 0 ) has only the runes. Since the values in $G$ do not seem to have been copied from the manuscript, they will have been added by Hickes or Wanley. G also has three variants not in O : one for $e$, one for $m$ and one for s. The last of these is a trifing variant of the normal s, from which it is only distinguished by having the middle stroke horizontal. The variant which $G$ inserts after the regular $m$ is in fact a d such as occurs for $d$ in the same alphabet. As to the additional $e$, it rather looks like the mysterious $e$ at the end of the second fuporc. These variants can hardly have been found in the common ancestor. They will rather be additions restricted to $G$, and probably due to the scribe of that manuscript.

The two alphabets have thirty-seven runes in common, which means that a number of variants have been included. The absence of Latin equivalents (the evidence of those in $G$ has little value, as they were added at a later date) may in some cases give rise to doubts: it will occasionally be difficult to decide whether a given rune stands for one letter or another ( x ):


The runes for $b, c, d, f, l, n, o, p, t, u$ and $y$ require no comment.
$a$ : the first character is $a$; the second is the $a$-rune found in the two Norse fuparks of the same manuscripts. The rune $\boldsymbol{x}$ has been relegated to the suppletive group at the end of the alphabet.
$e$ : of the three variants for $e$ (four in G) the first is the regular $e$; the second is 3 (name eohl), with a spurious lateral stroke also found with that rune in the fuporc of G. The third $e$ is either x or a variant form of ea, either of which could take the place of $e$ on the strength of the acrostic principle (eolhs, ear). The former of the two solutions is formally the most probable, and is also supported by a regular ea taking the place of $\boldsymbol{x}$. It looks rather as if the alphabetizer mixed up these two runes, probably owing to the similarity of their forms. The variant proper to G seems to have no runological value, cf. supra.
$g$ : neither of the two $g$ 's is the original $\mathbf{g}$ : the former is $\mathbf{j}$, the latter $\overline{\mathrm{g}}$.
$h$ : besides the usual $h$, there is a variant which may have been a type of $h$-rune borrowed from one of the Norse
( $x$ ) The variants only found in $G$ have been added at the end; the values are those found in Huckes's facsimile of $\mathbf{G}$.
fuparks, with a horizontal stroke added. There is another possibility : this might be the first $i$ in the alphabet, in which case we could identify it as the $\bar{j}$-rune, also with an additional horizontal stroke. Since there is a regular j amongst the variants of $i$, I prefer the first solution.
$i:$ the first certain $i$-rune is $\eta$ (ing); the second is $j$, the third (according to the distribution of values in Hickes's facsimile) is formally identical with $\propto$. The equation $\boldsymbol{x}$-rune $=i$ occurs only here. We have the choice between two explanations : either the $\mathscr{P}$-rune was mistaken for a variant of the ing-rune (cf. Brussels MS. 9311-9319, p. 71) (1); or else what looks like $\propto$ is in fact intended to be a variant for $k$. This is not so unlikely as it appears at first sight : in a few cases $\alpha$ is used for $q$ (Exeter MS. 3507, etc.; Harley MS. 1772) and this may have led to the inclusion of that rune among the $k$ 's. On the whole, however, the former solution is the more probable.
$k$ : the use of $k$ for $k$ was obvious.
$m$ : on the additional $m$ in G, cf. supra.
$q$ : as usually the symbol serving for $q$ is derived from $p$.
$r$ : the regular $\mathbf{r}$ is followed by a fanciful letter, derived either from the preceding rune or from Roman R (cf. Nemnivus's d, p. 158).
$s$ : on the additional $s$ in G cf. supra. The two runes found in both manuscripts are the original $s$ and the st-rune.
$x$ : cf. under $e$. The use of ea for $x$ is also found in Vienna MS. 1761 and in Leyden MS. Voss. lat. $12 \delta$.
$z$ : no rune, but a fanciful Roman Z .
33: a ligature of $e+t$, cf. 34 .
34 : the abbreviation mark $7=$ Lat. et or OE. and, ond. This abbreviation seems often to have been added to the Latin alphabet as a sort of 24 th letter (2).
(1) In Nemnivus's alphabet, too, a symbol which is formally identical with the $y$-rune takes the place of 0 .
(2) Cf. the examples in A. C. Paues, The Name of the Letter 3 .

35-37 these are three runes for which the alphabetizer found no use : w, b and æ. Cf. the procedure in Exeter MS. 3507, Cotton MS. Vitellius A 12 and Phillipps MS. 3715, where $\mathfrak{y}, \mathbf{b}$ and $\boldsymbol{x}$ are declared suppletive.

$$
*^{*} *
$$

There can be no doubt that this alphabet is derived from the fuporc with rune-names found in $G$ : the $z$-rune has the same accidental addition, $q$ is identical, etc. One or two variants were borrowed from the Norse fuparks in G and O:a and $h(?)$; one is fanciful ( $r$ ); on the other hand the variant $\propto$-rune was left out.

This complicates the problem of the origin of the collection in $O$. G cannot represent a revised and corrected edition, as the alphabet in O is based on the correct fuporc in G . On the other hand $O$ cannot have been derived from $G$ (or from one of its ancestors or descendants), because then one does not see why the good fuporc-with-names found in G would have been ousted for such a poor corrupt version as that in $O$. We must * then suppose that the compiler of O had before him a relative of $G$, which either did not contain the good fuporc-with-names; or which he began to use only after he had copied the corrupt fuporc-with-names from another source.

On the whole the alphabetizer proceeded logically and skillfully. In some way or other he mixed up the runes $x$ and ea; perhaps also $\propto$ and $\mathfrak{y}$. Otherwise his alphabet offers no difficulties.
16. Vienna, Nationalbibliothek, MS. $176 I$ (saec. XI/XII).

As the manuscript contains a full version of the treatise De inventione litterarum, it will be examined at length in the next chapter (p. 299 ff.). After the runic alphabet which we normally find in the treatise, a second one has been inserted. It is the latter which we have to discuss here. It occurs on fol. $100^{V}$ and is introduced by "Item". The compiler ob-
viously intended it as a variant to the preceding alphabet. It is rather badly crowded in; the values are written to the left of the runes, but two are at the end of a line whilst the rune to which they belong begins the next line. The characters differ greatly in size, $a$ and $f$ being twice the size of $n$ and $x$, and $y$ three times. They show little runic style; the $n$-rune e. g. is identical with the $g$-rune in the preceding line and with the letter $x$ in the next line. Yet some runes have well retained their original forms : $h, l, o, p, t, x$. The characters for $b, c, e, u$ show some amount of cursivation. The whole looks as follows :

 Fig. 44
$a$ : the rune with this value is identical with the $o$ of the De inventione alphabet, which is a slightly modified o. In the present case, however, this explanation cannot be adopted, as there is a regular $o$ with the value $o$ in the same alphabet. Perhaps we have rather to start from $\not \approx$ or a and to assume that the $o$ of the preceding alphabet influenced the original character.
$d$ : a similar type of $d$ is found in the runic alphabet of Karlsruhe MS. Aug. 176, but the Vienna character is closer to a minuscule $d$. I explain the Karlsruhe type as derived from a regular d, but this solution does not necessarily apply here. Did the compiler (of the present manuscript or of its exemplar) turn around a $p$ to make it look more like $d$ ?
$f:$ in the $f$-rune the upper lateral stroke has been curved back to the top of the shaft
$g$ : as mentioned before, the character for $g$ was no doubt interpreted as a formal $x$, and so was the rune $n$.
$k$ : this unique type of $k$ may perhaps be connected with the De inventione $c$, or with $q$ in the 'Arabic' alphabet of 268

Munich MS. 14436 and in Harley MS. 3017 (also in Oxford MS. St. John's College 17 ).
$n$ : cf. $g$.
$o$ : the right hand part of the lower lateral stroke has been much lengthened, a detail also found elsewhere (e.g. Exeter MS. 3507).
$q$ : formally $d$ and $q$ are very similar; the only difference is that in $d$ the triangle is rather directed upwards, whilst in $q$ it goes somewhat downwards. The origin of this $q$ is obscure. At the best it could be connected with the ('Chaldaean ') $q$ in Leyden MS. Voss. lat. F $12 \delta$ and in Vatican MS. Regin. 338.
$r$ : this rune is formally identical with a rounded $u$-rune. Yet such forms of $\mathbf{r}$ turn up occasionally, e.g. in the Dahmsdorf and Britsum inscriptions ( 1 ).
$u$ : the archaic ' upside down $V$ ' type of $\mathfrak{u}$.
$x$ : the use of ea for this letter is also found elsewhere : cf. Leyden MS. Voss. lat. F $12 \delta$ and Oxford MS. St. John's * College 17.
$y$ : on this point, too, the Vienna alphabet agrees with that of the Leyden manuscript. The choice of the rune $\mathbf{x}$ to fill this place may again be based on considerations of form : $\mathbf{x}$ was most like a Roman X.
$z$ :. I see no way of explaining this character, unless it is an imperfect 3 (formally the latter reminded of Roman $Z$ ).

The alphabet is on the whole rather problematic: the characters for $a, d, k, q$ and $z$ are obscure. It has some features in common with Leyden MS. Voss. lat. F $12 \delta$, but all in all too few for establishing some degree of relationship between the two. The Vienna alphabet may then safely be regarded as an independent alphabetization.
(1) W. Krauss, Runeminschriften, 442 f.
H. Arntz-H. Zeiss, Runendenkmäler, yff, 154 ff.; pl. I, VIII.
17. Kassel, Landesbibliothek, MS. Theol. F. 65 (saec. VI/VIII).
As a matter of fact the runic inscriptions found in this manuscript should be classified somewhere between manuscript and epigraphical runes : they are scratched on the binding. Formally they come closer to the inscriptions, but since they belong to the sort of runic writing that was practised in scriptoria, I have classified them with the runica manuscripta.

Kassel MS. Theol. F. 65 was written in the latter half of the sixth century. The text in half-uncials was corrected by early Continental and insular cursive hands. The latter is generally supposed to be St. Boniface's own hand, or that of one of his companions. This circumstance might lend special value to the runes, but we shall see that they can hardly directly go back to the famous missionary or his followers.
The runes on the Kassel binding were first noticed by J. Caesar in 1864; P. Lehmann edited them almost thirty years ago, but runologists seem hardly to have noticed them (r). It is not necessary to give a full description of the codex, since the runes are found on the binding. The latter belongs to an interesting group of Fulda bindings examined by Lehmann (2). Many bear inscriptions of some sort, which often escaped notice. Scratching with a dry point was at one time widely practised, but owing to the difficulty of reading, such inscriptions have often been neglected (3). They are of course not easily dated either. In the present case the binding (saec. VIII, Fulda) offers a terminus post quem, but the other limit can hardly be established with certainty. Internal evidence seems to point to the late eighth or the ninth century. The Kassel binding bears two inscriptions : on the front cover one that seems to refer to the contents of the codex, on the back a runic alphabet. The former will be examined on p. 414.7t. in (i) P. Lehmann, Fuldaer Studien (1). (Sitzungsberichte der Bayerischen Akademie der Wissenschaften. Philosophisch-philologische und historische Klasse. Jahrgang 1925, 3. Abhandlung). München, 1925, 15 f. Cf. p. 414 The manuscript was lost in 1945
(3) Cf p. 42x, footnote 1.
(3) Cf. e. g. B. Bischoff, Uher Einritaungen in Handschriften des frïhen Mittelalters. Zentralblatt für Bibliothekswesen 54 (1937), 173-177

The alphabet consists of the following runes:


The characters for $x y z$ are missing. A number of runes call for no comment, viz. those for $a$ (i. e. a) bceilmru.
$d$ : formally this character is rather like Roman D , but there is also a chance for its descending from $\mathbf{p}, \mathrm{cf} . \boldsymbol{d}$ in Harley MS. 1772.
$f$ : has only one lateral stroke, as that in Exeter MS. 3507 and Cotton MS. Vitellius A 12. It owes its origin probably to a faulty exemplar.
$g$ : the occurrence of the rare isruna type of $g$, also found in Exeter MS. 3507 and Cotton MS. Vitellius A 12, would be of great importance if the alphabet could be dated more accurately. As things are, it throws little light upon the origin of the isruna tradition, except that it proves that this variant may be less rare than appears at first sight.
$h$ : seems to have only one transecting stroke. Whether this is simply an omission, or whether the example of Roman H played some part, I cannot decide.
$k$ : this character is almost like a Roman K ; it also occurs amongst the rines of St. Gall MS. 878.
$n$ : is not runic, but rather a half-uncial $n$, the first shaft of which has been lengthened. I found a similar $n$ on fol. $49^{\mathrm{v}}$ of Basle MS. F. III. 15c, where it is followed by a rune a (in the word Natiuitate). As the Basle manuscript also originated in Fulda, we may perhaps suppose that some scribes there mistook the half-uncial $n$ for a rune. The character is found in ornamental inscriptions, e.g. in

British Museum MS. Royal 7. C. XII and in Dublin MS. Trinity College 60 ( I ).
$o$ : the choice of $\boldsymbol{c}$ for $o$ may point to a Continental alphabetizer.
$p$ : this character is either the rune $w$ or a Roman P. It is not unlikely that the former was interpreted as $p$ under the influence of the latter
$q$ : either a minuscule $q$ or, less probably, a Greek кóтлa.
$s:$ it is almost certain that this is not a rune, but an insular minuscule s. I doubt that there is any connexion between this $s$ and that on the Thames scramasax and St. Cuthbert's coffin (unless the rune in the latter inscription were derived from the same minuscule $s$ ).
$t$ : here we have at last a sure indication that the alphabet is due to a Continental scholar : the rune $\mathbf{d}$ has received the value $t$, just as its OE. name $d x g$, deg became OHG. tag, tac.
Considering everything, this alphabet can hardly go back to Boniface or his immediate surroundings. An Englishman of the early eighth century would have known which characters could take the place of $n$ and $p$; he would hardly have used $\mathbf{d}$ for $t$, or $\propto$ for $o$. If some relation to a hypothetical fuporc brought over by Boniface is to be assumed, one must at least attribute the alphabet to the second generation of the school created by the English missionary. This rather diminishes its value; and the latter still decreases if we think of the possi-bility-which can hardly be ruled out-that it has nothing to do with the founders of Fulda. After all, the alphabet is not ' much more runic' than that in Leyden MS. Voss. lat. Fi2 $\delta$, and rather less than that in Harley MS. 3017. It is then safer not to connect it with Boniface and his companions. We may regret this conclusion, the more so because this alphabet also contains the isruna type of $\mathbf{g}$. But there is no indication of this alphabet being older than the ninth century, and this is a
(1) E. A. Lows, Codices Latini Antiquiores II, 217, 277. On the Basle manuscript ef. p. 421.
good reason for not attaching too great importance to it in the chapter on the isruna tract
A few words about the inscription on the front cover of the same manuscript, to which we shall have to return in Chapter $V$. It consists of three attempts to write the same word, the second of which remained unfinished: iosew3 / i ios i / iosewz. Lehmann transcribed the first and the last line by IOSEPI, and this seems to be the only possible explanation. The inscription agrees on one point with the alphabet : the rune $\mathbf{w}$ stands for $p$. On three other points it differs, viz. in the choice of $o$ for $o$ (the alphabet has $\propto$ ), in the use of 3 for $i$, and of $\mathbf{s}$ for $s$. It looks as if this inscription is based on still another alphabet.

## Conclusion

After the discussion of the general problems of alphabetization and of the special aspect of each single item, our conclusions may be brief.
First of all, the proportion between English and Continental alphabets is striking. Compared with that of the fuporcs, it is entirely reversed. For one English alphabet there are four or five on the Continent. The explanation is simply this : fuporcs can hardly have meant anything to Continental scholars, who had lost all touch with runic tradition. They could only conceive an alphabet in the order of the Latin letters (hardly even of the Greek or Hebrew letters). When a fuporc was presented to them their natural. reaction would be to turn it into an alphabet.
This being the case, we need hardly consider all alphabets as manifestations of one movement. The success of the alphabetization, the degree of adaptation to Continental Germanic phonology differ so much that there can be no question of "urredactionen" which were gradually perfected.
As to the English alphabets, they must all belong to an age that had lost the sense of the runic system. They either go back to fuporcs we know, or were imported from the Continent.

## APPENDIX

## Spurious Alphabets and the Last Phase of the Runica <br> Manuscripta (1).

In a number of manuscripts discussed thus far or mentioned in the coming chapters, we find alphabets which do not seem to be related to those of the three 'sacred languages', i. e. Hebrew, Greek and Latin. I have called these alphabets 'spurious' for want of a better term; perhaps further research may discover the sources from which they are derived. The most popular of those alphabets was Aethicus Ister's, which no doubt deserves closer study. It was incorporated into the treatise De inventione litterarum and is to be found in many f the codices examined in the next chapter. Nemnivus's alphabet was another; as we saw in Chapter III, its origin is not so obscure as one might imagine. But here we are concerned especially with the alphabets circulated as 'Chaldaean', Egyptian', 'African', 'Gothic', etc. I came across the ollowing instances whilst collecting the material for this work (2) :

1. Cotton MS. Domitian A 9 (saec. VIII leaf): Chaldaean, Egyptian.
2. Berne MS. 207 (saec. VIII/IX) : no names (African, Egyptian).
3. Vienna MS. $75^{1}$ (saec. IX) : no name (Egyptian or Gothic).
4. Vatican MS. Regin. lat. $33^{8}$ (saec. X/XI) : ChaldaeoAssyrian, Egyptian
5. Munich MS. lat. 14436 (saec. XI in.) : Egyptian, Gothic, Chaldaean (runes are called Arabic, Syriac, Alanic).
6. Oxford MS. St. John's College 17 (saec. XI ex./XII in.) : no names (Egyptian, Gothic).
(1) Cf. my Uit de Geschiedenis van de Runen, 52 ff .
(2) Professor B. Bischorf informed me that he had got together an important collection of such material, but had not yet found an opportunity to study it in detail. In the survey I have felt free to dispense with the quotation marks : no reader will take those high-sounding names on their face value.
7. Bamberg MS. Msc. paṭr. 130/2 (saec. XII) : Chaldaean (= runes).
8. Cotton MS. Titus D 18 (saec. XV in.) : Chaldaeo-Assyrian, Gothic, Persian.
Manuscripts without runes also contain such alphabets. A few are listed here, but there are no doubt many more :
9. Munich MS. lat. 14725 (saec. IX in.) : Chaldaean, Egyptian.
10. Vatican MS. lat. 266 (saec. IX) : no names (Egyptian, Gothic).
11. Avranches MS. 107 (saec. XII) : Chaldaeo-Assyrian Egyptian, Saracen.
12. Munich MS. lat. 14684 (saec. XIV, alphabets XV) : Chaldaean.
13. London, British Museum, Addit. MS. 4783 (late saec XIV) : Egyptian, African. ( + Norse runes)
14. Dublin, Royal Irish Academy, Book of Ballymote (late saec. XIV) : Egyptian, African. ( + Norse runes)
15. Berne MS. 762 (saec. XVI) : Egyptian, African, Samaritan (contains a number of runes), Persian, Chaldaean, Cathayan or "Pentexorie".

It is worth noting that these alphabets enjoyed considerable popularity in the North of France : nos. 2, 4, 5, 9, 11 originated there.

The last manuscript probably draws part of its material from Mandeville's Travels (I). In the latter work we find a whole series of alphabets : one group of manuscripts has six (Hebrew, Greek, Egyptian, Saracen, Persian and Chaldaean), another three more (the above plus Tartar-Russ, Cathayan and Pentexoire). There can be no doubt that the author used a collec-
(x) Cf. M. Letrs, Sir Yohn Mandeville. The Man and his Book. London 1949), 15 ff ., and
. Ds Pokrck's review in: Belgisch Tijdschrift voor Philologie n Geschiedenis, 30 (1952), 881-883.
. Drkolez, Uit de Geschiedenis van de Runen, 53 ff
me proof sheets with the alphabets from his forthcoming edition of the Travels.
tion of alphabets made up of material such as is found in the above manuscripts (except the last). The origin of most of these alphabets is still a matter of discussion, but the one that is of special interest to us offers no such difficulty. Mandeville's Saracen is a combination of runic characters with the names of Aethicus Ister's letters. In many manuscripts, especially in the oldest (among the Brussels copies which I examined, MS. 10420-10425 [fol. 49 ${ }^{x}$ ] is the most convincing), the runic origin of the characters cannot be doubted (cf. the names with those of Aethicus's letters, p. 352) :

## atmoy bechath cati delfroi effoti forthi choiri gaiop helchim ioith kaiti <br> 

 lothim malath nobeleth orchy coriset incolach renchis salaci totimus


$$
\text { Fic. } 46
$$

Three questions arise immediately in this connexion :
(1) How did the runes come to be called 'Saracen' characters?
(2) By what way were they connected with the names of Aethicus Ister's letters?
(3) Where did the runic alphabet come from?

The answer to the first two questions becomes obvious if we briefly examine alphabet collections like those in Avranches MS. 1o7, Munich MS. 14436 and Bamberg MS. Msc. patr. 130/2. In all three the alphabets are arranged in vertical columns. Such an arrangement may have led to the letternames of one alphabet being connected with the letters of another. Similarly the name of one alphabet may have been shifted to another. Either move may have been accidental,
or planned by an author who had a feeling for esoteric bits of learning.

In the Avranches manuscript Aethicus Ister's alphabet ts listed under the heading SARRACENORVM/LITTERAE; in that of Munich we found runes presented as Arabic, Syriac and Alanic letters; in the Bamberg codex they are termed Chaldaean. The author of Mandeville's Travels, who displays an extraordinary liking for fantastic combinations, if not for truthful reporting, may have combined material similar to that in the above manuscripts in order to provide a Saracen alphabet missing in his collection. It is of course not impossible that he found such an alphabet ready-made in his source material; there is even a chance that a copy of such an alphabet has come down to us.
Munich MS. 14436 (or a codex with a related collection of alphabets) has been supposed to have supplied the runic ingredient of the Saracen alphabet, but a comparison of the latter with the Munich runes shows that this is impossible. We have, however, a much closer relative in Arsenal MS. 1169. It has exactly the same selection of runes as Mandeville's Saracen :
abcdefijhiglmonoxrstuty
Ars.: abcdef ghiklmnopqrstuxyz
Mand, : abcdefchghiklmnopqratuxy, etc.
In the Arsenal alphabets the value have been shifted one place forward beginning with $h$; with Mandeville $;$ has a value $c h$ (implying that the character was interpreted as a Norse h? or rather $\mathrm{ch}=/ \mathrm{t} / / \mathrm{?}$ ). But apart from this detail the agreement is so complete, that there must be a connexion between the two. Mandeville's alphabet may be said to represent a more genuine tradition than that in the Arsenal manuscript, which is more than three centuries older. At this point Hickes gives us a valuable clue. In his Thesaurus ( 1 ) there is a facsimile of a runic alphabet precisely of the same type; the names of the runes are again Aethicus Ister's letter-names, but they are written with Greek characters. It is quite unlikely that Hickes
(i) G. Hrckss, Thesaurus, Grammaticae Islandicae Rudimenta, Tab. III.
or Wanley should be held responsible for this combination; the ductus of the Greek letters, the shapes of the runes point to careful copying. If so, Hickes's facsimile probably represents the missing link between the material of Munich MS. 14436, Bamberg MS. Msc. patr. 130/2, Avranches MS. 107 and Arsenal MS. 1169 on the one hand, and Mandeville on the other.
In the new garb and with the new name which the author of the Travels had given them, the runes left the scriptorium and found their way into the printing office. The Saracen alphabet turns up in some of the earliest collections of alphabets, viz. those of Theseus Ambrosius and Urbanus Wyss (I). More examples could perhaps be unearthed, but there we are no longer in the realm of runica manuscripta. It is rather improbable that these scholars knew anything about the real character of this alphabet. Its real identity was discovered by Hickes (and Wanley, who had planned a study on the alphabet?): he printed the facsimile referred to above on a plate containing only runic material. That meant the end of the eventful career of a runic alphabet through seven centuries.
(1) T. Ambrostus, Introductio, fol. 204. A Norse runic alphabet (" alphabetum Gotthorum" = Swedish) is reproduced on fol. 2ofr U. Wyss, Libellus, fol. [Niiij'].

## Chapter IV

## RUNIC ALPHABETS (II) :

 DE INVENTIONE LITTERARUM.One of the earliest examples of runica manuscripta that came to the notice of scholars was a runic alphabet included in a short treatise on the history of the alphabet. Since Goldast edited it, this treatise is known under the title De inventione linguarum ab Hebraea usque ad Theodiscam, et notis antiquis. It is usually attributed to Hrabanus Maurus. Hence the runes in this treatise are usually called 'Hrabanic'; at times this term is applied to all Continental runic alphabets.
The fullest discussion is that by G. Baesecke (1). As we saw in the Introduction, he considers this runic material as due : to the activity of two scholars of saec. VIII/IX : Hrabanus Maurus and Alcuin. At least eight of the fifteen runic alphabets discussed by von Grienberger are connected with the De inventione tradition; to these Baesecke adds Heidelberg MS. Salem 9.39. Of the paragraph on the runes there are two versions, a longer text in Vienna MSS. 1609 and 1761, in the Heidelberg MS. and in Goldast's edition ( $=$ my type A), and the other, shorter text in Vatican MS. Urbin. 2go, Paris MS. 5239 and Cotton MS. Titus D 18 (type B). Berne MS. 207 and Munich MS. 19410 cannot be assigned to one or the other group. Baesecke holds that in the longer text the references to the Marcomanni, to the lingua theodisca and to divinationes are interpolations; in the shorter the remark about the runstafas would also be an addition (but cf. infra). The additional remark about the Goths in Vatican MS. Urbin. 290 would be

[^10]related to the Gothic material in Vienna MS. 795, which in turn is connected with Alcuin. On account of runstafas the shorter version would be closer to the OE. original than the longer one. The Nordmanni of the two texts are probably to be identified with the Danes, in whose country runic practice had been revived about the beginning of the ninth century. The interpolation divinationes would have been borrowed from the Germania: in ch. $x$ Tacitus describes the use of notae among the Germanic tribes and the compilator would have identified these notae with runes (an explanation still advocated by some runologists nowadays) (1).
(I) G. Barsecke, Abecedarium, 83 f.: " Die gemeinsame Aussage der lăngeren und kürzeren Texte, dasz die Runen zur Aufzeichnung von Gedichten und Beschwörungen dienten, ist in den langeren von den Nordmannen auf die Anrmanen) ausgedehn, die jerz noch Heiden sind, und es wird noch die land keine solche Aufzeichnungen in Runen. Auch Hraban kannte nichts dergleichen: sonst hätte er nicht diese angelsăchsischen statt der deutschen gebracht. Er denkt bei dieser Nachricht also wohl an nordische Heiden. gebracht. Er denkt bei dieser Nachricht also wohl an nordische Heiden.
Dort liesze sich vieles, auch Zeitgenössisches, als Beleg anführen. Aber Dort liesze sich veles, auch Zeitgenossisches, als Beleg anfuhren. Abe
divinationes fehlen auch dort. Dasz Nachrichten über die Runen der Nordmannen damals nach Deutschland kommen konnten, zeigt ja das dänische Abecedarium Nordmannicum. Die Dänen waren in der Tat noch Heiden, namentlich hatten sie seit etwa 800 eine jugendkraftige Runenkunst : die alte des Futharks der 24 Zeichen war dort zweihundert Jahre zuvor ausgestorben, die neue des Futharks der 16 wanderte nun von Norden her ein und eroberte das Land. Von ihr und ihrer heidnischen Anwendung kam auch Kunde $2 u$ Hraban nach Fulda : er hatte mindestens durch den Dichter des Heliand Beziehung zu Niedersachsen, das seit dem ersten Abte Sturmi Fuldas Missionsgebiet war, und Fuldaer Besitz reichte im 9. Jh. nordöstlich bis man im Kloster, dasz die Sachsen an die heidnischen Nardmann wn (atso Dänen) und Obodriten grenzten und dasz ein Teil von ihnen "beinah" ins Heidentum zurückgefallen war : eben darum waren vom Papste hilfreiche Reliquien erbeten; und Rudolf von Fulda, Hrabans Schüler, erzählt, wie die des H1. Alexander (im Jahr 85I) herangeführt wurden. So paszt auch Hrabans Satz über den heidnischen Runenzauber, und wenn das Weissagen mit Runen für den Norden unglaublich bleibt, so führt gerade dies auf Fulda: dort lag die Germania des Tacitus mit ihrem Bericht uber Los-divinatio; es ist das ganze Mittelalter hindurch auszer in Fulda keine Benutzung der Germania bezeugt, und in Fulda schirieb damals der Mönch Rudolf ganze Stücke für seine Translatio Sti. Alexandri daraus ab. Hraban setzte also die taciteischen notae des losenden Priesters richtig mit den Runen in Bexiehung und übertrug das Losen auf "diejenigen, die jetzt noch Heiden sind". Daher auch das nur

Baesecke distinguishes at least two authors, who treated their OE. models in different ways. The older one retained a number of OE. forms; his successor must have been a German : Hrabanus Maurus. At this point it is difficult to follow Baesecke's argumentation, because he includes alphabets which have no connexion with the $D e$ inventione tradition. The original fuporc might have reached Germany at the time of the Anglo-Saxon mission, but Baesecke rather believes it was brought to the Continent by Alcuin. Hrabanus would have learned it in Tours when he was studying under Alcuin (80I804). The other chronological limit would be given by Hrabanus's De institutione clericorum (819), where Baesecke discovers an allusion to the De inventione text.
In the Introduction I have pointed out some weak spots of this argumentation : it is based on unproved assumptions; it throws together unrelated material; it exaggerates the importance of Hrabanus's runic studies (if they ever took place). Cf. infra p. 374 ff.
W. Krause, the latest author to discuss the Hrabanic runealphabet, follows much the same procedure. He too considers. the treatise as a manual to be used in schools, and probably ${ }^{\text {? }}$ rightly so; but we can hardly accept his further implications : " Der ganze Traktat diente offenbar Lehrzwecken und mag somit eher der Fuldaer Zeit Hrabans als seinen letzten Mainzer Jahren angehören. Da ferner die angelsächsischen Musterformen der Hrabanischen Runen ersichtlich auf den Einfluss Alhwines weisen, der 804 starb, so scheint mir auch dieser Urnstand für eine verhältnismässig frühe Entstehungszeit des Traktats zu sprechen" (1): This brief quotation contains the essentials of Krause's argumentation. He too distinguishes two versions, and he also considers the shorter version (e.g.
zu divinationes (nicht zu carmina und incantationes) etwa passende significare für das scribere des kürzeren Textes : er denkt an das Losen mit "bezeichneten" Stabchen.
Nach dem zufâlligen und gewisz sehr vorlāufigen Material zu urteilen, walre also ein alterer und kürzerer Text von Hraban interpoliert, wie das seine Art ist, und der âtere wăre, wegen runstafas 6 [must be $8=$ Cotton MS. Titus D 18 in von Grienserger's list], noch angelsächsischer gewesen ". (I) W. Krause, Die Hrabanische Runenreihe, 175.
that of the Paris manuscript) as the older; it would be due to an Anglo-Saxon, proof for which Krause finds in the contents of the Paris codex : the treatise on the alphabets is preceded by several of Bede's works. The implication is that Alcuin served as an intermediary, since he was Bede's pupil (according to Krause). The author is aware of a difficulty : in the older, more 'English' version the rune-names show precisely the same amount of German influence as those in the version supposedly recast and adapted by the German Hrabanus Maurus. He supposes that the Paris manuscript did not preserve the original text, but is in fact a mixture, "... eine durch spätere Abschreiber entstandene Mischung der Arbeit eines angelsächsischen Autors und eines deutschen Bear-
beiters " (I).
Krause also connects St. Gall MS. 270 (one of our isruna group) with Hrabanus Maurus : the example corui in the isruna tract would be an allusion to his name (OHG. hraban, raban ' raven '). This manuscript would in fact represent an older stage; its runic alphabet would be "ein runisches Probe-ABC mit Angabe verschiedener Nebenformen". This alphabet would come closest to Hrabanus's Urfassung, which he improved and made 'more German' at subsequent attempts : "Dies Probe-Alphabet mag er dann in verschiedener Weise ausgestaltet und geglättet und eins der so gewonnenen Alphabete in seinem Tractat "De inventione linguarum" aufgenommen haben. Die verschiedenen, in der geschilderten Weise auf Hraban selbst zurückgehenden Runenreihen haben aber weitergelebt und sind von interessierten Schreibern wieder und wieder nachgebildet, dabei mehr oder weniger bewusst verändert
worden" (2).
I do not think it is necessary to offer a full appreciation of these reconstructions at this point; a number of remarks have Introduction. The rension with Baesecke's work and in the Introduction. The rest may be easily gleaned from the con-
clusions of the present chapter.
(1) W. Krause, Die Hrabanische Runenreihe, 186.
(2) W. Krause, 282

As I indicated in the Introduction, I do not intend to give a critical edition of the De inventione litterarum text. Under the title De inventione linguarum, etc. (cf. infra) it was last edited in 1606 . The text in the complete works of Hrabanus Maurus, edited by Colvenerius in 1626, is simply taken over from Goldast's edition, and Colvenerius's text was in its turn reprinted by Migne for his Patrologia Latina. Since Goldäst seems to have used only one manuscript, a new edition is badly needed indeed ( x ). Yet a full discussion of the Hebrew, Greek, etc. material has too little to do with runica manuscripta to have any right of being included here. I have, however, given the whole text of the two or three versions that may be distinguished. In the first place this may help us better to evaluate the position of the runes; for the same reason I have added a number of parallel texts. Some reference to the nonrunic material cannot be avoided because in a number of cases only those paragraphs and alphabets enable us to establish the relationship between the different versions and manuscripts.
Of the fourteen 'Hrabanic alphabets' mentioned by von Grienberger - Baesecke - Krause (excluding for the time being two printed versions) only six or seven actually belong to the De inventione tradition (2):
r. Vienna, Nationalbibliothek, MS. 1609 (v. Gr. no. 3).
2. Vienna, Nationalbibliothek, MS. 176 (v. Gr. no. 1).
3. Heidelberg, Universitätsbibliothek, MS. Salem 9.39.
4. Munich, MS. A. Weinmüller (first edited by PlassmannKrause).
5. Paris, Bibliothèque Nationale, MS. lat. 5239 (v. Gr. no. 5).
6. London, British Museum, Cotton MS. Titus D 18 (v. Gr. no. 8).
(1) The extracts from various manuscripts given by some authors, e. g. Bassgcker and Krusss, only contain the text on the runes, and even so they can hardly be considered as a critical edition of that one paragraph.
 survey these numbers are added between brackets.

Only one more manuscript amongst those mentioned by Krause is to be connected with the De inventione tradition:
7. Vatican Library, MS. Urbin. lat. 290 (v. Gr. no. 6). On the other hand, the following six manuscripts not included by von Grienberger-Baesecke-Krause also contain more or less complete versions of the treatise; in two of them the runes are missing :
8. Vatican Library, MS. Regin. lat. 294 (its version differs considerably from those in the first six manuscripts).
9. St. Gall, Stiftsbibliothek, MS. 876 (no runes).
10. Vienna, Nationalbibliothek, MS. 1oro.
in. Strasbourg, Bibliothèque Nationale et Universitaire, MS. 326 .
12. Nürnberg, Germanisches Nationalmuseum, MS. 1966.
13. Florence, Biblioteca Medicea Laurenziana, MS. S. Marco 604 (no runes)
Isolated runic alphabets of the De inventione type are found in three manuscripts :
14. Karlsruhe, Badische Landesbibliothek, MS. Aug. 176.
15. Karlsruhe, Badische Landesbibliothek, MS. Aug. 254.
16. Bamberg, Staatliche Bibliothek, MS. Patr. misc. 130/2. To complete this survey I include
17. W. Lazius, De gentium aliquot migrationibus, etc. Basle [1557] (v. Gr. no. 4).
18. M. Goldast, Alamannicarum rerum scriptores aliquot veteres. Frankfurt 1606. (v. Gr. no. 2) (1).
These last two versions, however, can hardly be placed on one level with nos. 1-16. Lazius's text-he gives only the text on the runes and a runic alphabet the end of which is missing-is in all probability borrowed from no. r. Goldast's version closely resembles nos. 1,2 and 9 , and therefore I have hesitated
0) "Macromannorum sive Normannorum literae Runicae" are also found in Copenhagen MS. Ny kgl. Sml. 1867, $4^{\circ}$, written in 1760 by Olarur BrynJúlpsson. This manuscript is a compilation made up int. al. of printed texts
(e. g. Resenius's edition of the Snorra Edda [1665]); its runic alphabet reminds of those edited by Lazius and Goldast.
to count it as a separate item. The points on which it differs from those manuscripts may be matters of copying and editorial policy. It is only to leave open the possibility of Goldast having used a related manuscript that I have listed his edition separately. No such treatment was needed in the case of Lazius, as there the chances of his having copied from a source that has not come down to us are extremely slender. There is of course no need for referring to Colvenerius or Migne, as their texts have no independent value.
The other manuscripts mentioned by Krause and his predecessors, viz. Munich MSS. 14436 and r9410, Vatican MS. Regin. 338, Berne MS. 207, Vienna MS. 751 and Phillipps MS. $37 \times 5$ show such important divergences from the $D e$ inventione type of runic alphabet (not to mention the other alphabets nor the introductory texts) that $I$ have felt safe to examine them in Chapter III with other independent alphabets.
There is quite a chance that the above list is not exhaustive; the recent discovery of no. 4 is a warning against any illusions in this respect. Yet the chances that versions older than those listed here should still await discovery does not seem to be very great : the oldest manuscript that has come down to us cannot be much later than the date of composition of the treatise.
As we shall see, two basic types are reflected by our eighteen versions : type A is represented by seven manuscripts (nos. I, $2,3,4,9,10,12$ ) and by Lazius's and Goldast's editions (nos. 17 and 18), type B by four manuscripts (nos. 5, 6, 11, 13). Of the five remaining manuscripts one offers a quite different text, but probably belongs to the A group (no. 8); four have only the runic alphabet, and so it is practically impossible to decide what type they represent (nos. $7,14,15,16$ ).
Occasionally objections have been raised against the title of this little treatise : it does not treat of the origin of languages, but of the origin of alphabets. Our only authority for linguarum is Goldast, who probably invented the title; at any rate it is not found in any of the manuscripts examined for this study. Therefore I have felt free to alter linguarum to litterarum. The framework of the treatise consists of five alphabets: Hebrew, Greek, Latin, Aethicus Ister's and runes, each with
a brief introductory text on the origin of these alphabets. This interest in 'inventors' was quite current in the Middle Ages. Their names could be gleaned from Isidore's chapter $D e d e$ scriptione temporum (Etymologiae V, xxxix) and from other passages in that work (II A, ii De inventoribus rhetoricae artis, III B, i De inventoribus geometriae et vocabulo eius, etc.); regular lists of nomina inventorum must have enjoyed some popularity (e. g. Vienna MS. 1761, fol. $108^{\text {v }}$; Munich MS. 19413, fol. $127^{\mathrm{r}}$, etc.) (1). De origine litterarum may then be characterized as a sort of a hybrid between such a list of inventors and the treatment of the alphabet in grammars.
The study of this material offers some difficulties. It lent itself easily to recasting, to reducing or swelling. For the first three paragraphs at least-those on the Hebrew, Greek and Latin alphabets-any library or school of some importance must have offered parallel or additional material. So it is quite natural that the versions should differ more on the point of Hebrew e. g. than on that of Aethicus Ister's letters. Some desequilibrium in my treatment may result from the fact that I have included stray runic alphabets (if they showed the same type as those actually connected with a De inventione text), but no stray Hebrew or Greek alphabets (not to mention Latin). Such a distinction was, I think, unavoidable. It is true that for Hebrew the Middle Ages had only a few sources (mainly Jerome); but the study of the transmission of elementary Greek (a smattering of which was offered even by Latin grammars) would be far more complicated (2).
Consequently, when the sources of De inventione litterarum are examined, a distinction must be made between the first three paragraphs (Hebrew, Greek and Latin) on the one hand, and the fourth (Aethicus's alphabet) and fifth (runes) on the other. The text of the first three was mainly borrowed from Isidore of Sevilla's Etymologiae I, iii : De litteris communibus; iv : De litteris latinis. Some grammatical commentaries also contain striking parallels, e.g. the Commentum Einsidlense
(x) Extracts from such a list of inventors in Ghent MS. 92 (the so-called Liber floridus), will be found in the Appendix.
(2) B. Bischorf, Das griechische Element, 32 ff.
in Donati Artem maiorem, the chapter De littera in Berne MS. 207, the ars grammatica of the Irishman Clemens, etc. The extracts given in the Appendix to this chapter present only the more obvious parallels to the De inventione text. References to Cadmus, Carmentis, etc. could be found in many other Mediaeval grammarians (Servius, Sergius, Pompeius, Victorinus). As was pointed out before, much of this lore must have been so current that one can hardly use the term ' sources '; there can be no doubt that many scholars knew such matters by heart and could use them freely without reference to a written exemplar.
The paragraph devoted to Aethicus Ister's alphabet is drawn from the first and last lines of that author's Cosmographia ( I ). This reference to the Cosmographia provides us with a terminus post quem. According to K. Hillkowitz (2) that work must have been written after 768 , since it uses the Continuationes Fredegarii, and before 821, in which year it is mentioned in the library catalogue of Reichenau. The oldest manuscripts themselves seem to go back to ca. 800 (3), and so the period during which the Cosmographia was compiled may be narrowed down to the last quarter of the 8th century. It is supposed to have originated in the kingdom of the Franks. The philosopher and cosmographer Aethicus, born in Istria of noble parents', is a fiction, and so is Jerome's participation in the work. But whether this allows us to consider the whole work as a huge joke, as Hillkowitz proposes (4), I cannot decide. At
(1) D'Avezac, Mémoire sur Ethicus et sur les ouvrages cosmographiques intitules de ce nom. Académie des inscriptions et belles-lettres. Mémoires présentés par divers savants. Première série, II (1852), 230-551.
K. A. F. Prrtz, De Cosmographia Ethici Libri tres. Berlin, 1853.
H. Wurtkr, Die Kosmographie des Istrier Aithikos im lateinischen Aussuge des Hieronymuls. Zweite vermehrte Ausgabe. Leipzig, 1853 . It is unfortunate that the edic ple has not (2) H
(Diss. Bonn) Köln, 1934.

Aethicus' Hilleowitz does not seem to have considered the occur
(4) K. Hrusxowitz, Zutr Kosmographie, 73 : "Aber sicherlich haben wir es bei Aethicus mit einem Spottvogel zu tun, der eine Parodie auf Erdbeschreibungen verfassen wollte ". What could be interpreted as a joke in certain
any rate Aethicus's paternity of the curious alphabet found at the end of the Cosmographia was not doubted by the compiler of the De inventione, and the letters themselves were placed on one level with runic, if not with Hebrew, Greek and Latin The riddle of Aethicus's alphabet has not yet been solved.
The fifth paragraph, and the last to which De inventione litterarum applies, is that on the runes. Research devoted to it has been surveyed in the general introduction and at the beginning of this chapter. Further discussion will follow after the material has been examined.
In most manuscripts the text ends here; the list of Greek numerals which a few append to it was obviously meant to complete the paragraph on the Greek alphabet. But three or four versions, viz. St. Gall MS. 876, Vienna MS. 176r, Heidelberg MS. Salem 9.39 and Goldast's edition, add notes on several sorts of cryptic writing.
(1) The notae Caesaris. These notae are also found in several of the laterculi notarum (alphabetical lists of notae) edited by T. Mommsen ( I : : the notae Vaticanae (Mommsen, p. 301 ff.), the notae Papianae et Einsidlenses (Mommsen, p. 315 ff .) and Paulus Diaconus's notae litterarum more vetusto (Mommsen, p. 331 ff ). The selection of abbreviations found at the end of the De inventione does not form a close group, but there is one for each of the twenty-three letters of the alphabet: AVG $=$ Augustus, $\mathrm{BM}=$ Bonae memoriae, till ZEN $=$ Zenovius [i. e. Zenobius], followed by $\mathrm{LR}=$ Locus religiosus and $\mathrm{CM}=$ Comes; abbreviations with initial $C$ and $L$ are missing amongst the first twentyone. This type of writing has of course little to do with Caesar, but the notae Papianae et Einsidlenses provide us with a welcome parallel : there too we find the inscription INCIPIVNT NOTAE IVLII CAESARIS; apparently
circumstances must not almays bave been so. The interpretation of the curious latinitos of the grammarian Virgilius Maro offers similar difficulties. There is a striking reeemmbance between Aethicus Ister, the Scythian sage, and Fenius Faraiidh, who "was a sage in the principal languages even before he came
from the North out of Scythia " (G. CAwze, Auraicept, x3; cf also the introduction to this work).
(x) T. Momмssen, Notarum laterculli, in : Grammatici Latirit, Vol. IV, 265 ff.
not at the beginning of the text, but between the fourth and the fifth abbreviation beginning with $C$. Mommsen explained the attribution to Julius Caesar as due to the misreading of notae i.c. $(=$ iuris civilis) as notae Iulii Caesaris. According to H. Hagen, it would rather be due to a misapplied reminiscence of Suetonius's famous passages on the system of cryptography used by Caesar and Augustus ( x ); and since the following paragraph of the De inventione actually treats of a cryptic system inspired by Caesar's (or rather Augustus's) secret writing, Hagen's explanation should not be rejected a priori. A combination of the two explanations probably approximates the truth.
(2) The notae sancti Bonifatii, of which there are two sorts: one in which the vowels are indicated by one to five dots (either $a=., e=:, i=\vdots, o=::, u=: \because$, or $a=:$, $e=\vdots, i=, o=::, u=\because$ ), or else by the consonants which come immediately after them in the alphabet ( $a=b, e=f$, etc.). The text informs us that "the archbishop and martyr Saint Boniface had shown these to our ancestors when he came from the Anglo-Saxons; yet we tend to believe that they were not invented by him, but were used in this way by the Ancients". In his discussion of these notae L. Levison points out that there may be some fundamental truth in this statement (2). At any rate they remind one of the notae Augusti mentioned by Suetonius. One example is given of each variety of notae.
(3) A list of monograms, with a brief introductory text. A monogram is said to be one character made out of a conglommeration of letters. The examples go from simple
(1) Subtonuss, De vita Caesarum I : Divus Iulius, c. 56 : "Extant et [epistulae] ad Ciceronem, item ad familiares domesticis de rebus, in quibus, si qua occultius perferenda erant, per notas scripsit, id est sic structo litterarum qua occultus perferenda erant, per notas scripsit, id est sic structo litterarum
ordine, ut nullum verbum effici posset : quae si quis investigare et persequi volet, quartam elementorum litteram, id est $D$ pro $A$ et perinde reliquas commutet"; II: Divus Augustus, c. 88: "Quotiens per notas scribit, B pro A, C pro B ac deinceps eadem ratione sequentis litteras ponit; pro $\mathbf{X}$ sutem duplex $\mathrm{A}^{\prime \prime}$.
(2) W. Levison, England and the Continent, 290 ff.
constructions such as Dominus, Sancta, Maria, to Salomon Rex Pacificus.
In St. Gall MS. 878 we had a good illustration of what may have been the prehistory of the De inventione tract (cf. p. 76). There we found precisely those extracts from Isidore's Etymologiae upon which the text of the first three paragraphs is based; these extracts are followed by a fupore and by the Abecedarium Nordmannicum. There is as yet no introductory text to the runes; neither Aethicus Ister's alphabet nor the notae and monograms have been added. But if B. Bischoff is right in supposing that Walahfrid Strabo is responsible for this compilation, it can hardly have direct connexions with the De inventione tradition : the tract is supposed to have been completed one or two decades before Strabo may have picked up his alphabetic lore, and even so Strabo's runes are much closer to the OE. and ON. models than the runic alphabet in the tract we are examining. On the other hand Walahfrid's collection shows how current most of the material in the tract must have been. It may also be a warning not to forget that such tracts could be composed in various places with not too different results, or that additional bits of information could easily be added to them.
In the following survey, the manuscripts have been classified roughly according to their relationship. Further details on p. 345 ff.

## The Manuscripts.

1. St. Gall, Stiftsbibliothek, MS. 876 (saec. VIII/IX).

According to A. Bruckner (1) this manuscript was written in St. Gall at the time of Waldo (first mentioned 770; Abbot
(1) A. Brucknkr, Scriptoria II, i, 8o. G. Scherrer, Verxeichniss, 303, also (1) A. Bruckner, Scriptoria II, i, 8o. G. SCHERRER,
dates it "s.VIII/LX". On this manuscript cf. also:
H. Hattrmer, Denkmahle 1, 423 and pl. II.
H. Hattrmer, Denkmahte 1, 423 a
G. Scherrre, Verreichniss, 303 ff.
E. Steinmeyer-E. Sisvirs, Althochdeutsche Glossen IV, 454.
J. M. Clark, The Abbey of St Gall, ioI, 114
$782-786$ (?); 786 Abbot of Reichenau, 806 of St. Denis, later Bishop of Basle) and his immediate successors. It is mentioned in the oldest catalogue of the St . Gall library :

Partes asporii; item partes donati grammatici; item ars honorati grammatici; diomedis de metro; item bedæ presbiteri de metrica arte; item partes donati minores maioresque; item tractatus pompegii in donatum et alia multa. Hec omnia in volumine I. (1).
Modern binding : back in white pressed Renaissance leather, wooden boards not covered, clasp missing. Rather stiff parchment, white and yellowish; many holes and old repairs. The codex is made up of 263 folios; they bave the usual St . Gall pagination (pp. 1-526; the last page was at one time pasted onto the binding) and are arranged in 35 gatherings (no quire marks) :

I fly-lear $[1-2]+111(+2)[3-18]+111(+1)[19-32]+5$ IV [33-112]

+ III $(+2)[113-128]+$ IV $[129-144]+\mathrm{II}[145-148]+3$ IV $[149-$ 196] $+1(+3)[197-206]+4$ IV $[207-270]+$ IV $(-\mathrm{I})[271-284 ; \mathrm{cf}$. infra] + IV $[285-300]+$ ? II $(+4)[301-316]+$ IV $[317-332]+$ II $(+1)[333-340]+7$ IV $[34 \mathrm{I}-452]+\mathrm{III}(+2)[453-468]+2 \mathrm{IV}$ $[469-500]+$ IV $(+$ I) $[50 \mathrm{x}-518]+$ II [519-526].
Bruckner distinguishes at least seven hands : $\mathrm{A}=$ pp. 3-33 (also 33-128, 144-145, 1487 ); $\mathrm{B}=129-144,146-147,200-203$ (closely related to A ); $\mathrm{C}=$ 149-199, 205-206; $\mathrm{D}=156 ; \mathrm{E}=208-277$ (closely related to C ) $; \mathrm{F}=285-338$ dot mention the ); $G=341-526$ (probably more than one hand). He does ? De inventione text. There is little doubt that this part is approximately contemporary with the rest of the manuscript, even if the handwriting cannot definitely be identified with any of the varieties described by Bruckner. The manuscript was probably not planned as a whole from the very beginning, but assembled gradually as the material could be collected; the large number of single leaves points in the same direction. It will be safe to assume that compiling this codex took quite some time, perhaps two or three decades; so the manuscript may be dated in the last quarter of saec. VIII, including (especially for the De inventione) the first years of saec. IX.
Format : $232 / 235 \times 145 / 150 \mathrm{~mm}$; written area $182 / 190 \times 110 / 120 \mathrm{~mm}$; 27-29 lines to the page, one column (on the special arrangement of the De inventione text, cf. infra)
Contents (2) :
p. 1 probationes pennae, drawings : 2 men with swords ( 7 ), inscribed Melib... TITITrus; Christ on Cross, insct. Rex iudeoru[m].
3 IN NOMINE DEI SANCTISSIMI INCIPIUNT PARTES ORATIONIS ASPORI $=$ Donatus minor in dialogue form, here ascribed to Julius Asper.
30 Incipit ordo cognoscendi nomen (after Donatus).
(1) P. Lermann et. al., Bibliothehskataloge I, no. 16, 81, 11. 29-32.
(2) Cf. G. SCHERRRR, Verxeichniss, 303-305.

32 HEIIAEKRO/A) $(H+$ ФEAO $=$ Explicit, Domine + fiat
32 INCIPIT ARS DONATI GRAMMATICI (commentary on Donatus).
86 De adverbio, etc.
90 Excerpts from Isidore, Etymologiae I, 6-1 3 .
98 EXPOSITIO ARTIUM DONATI (from Sergius's commentary).
104 DE BARBARUSMO; 105 DE SOLOECISMO; 107 DE CETERIS UICIIS; 108 DE METAPLASMIS; 109 DE SCHEMATIBUS; in DE TRHOPIS (from Donatus).
115 Victorinus, De firalibus metrorum (no title).
124 INCIPIUNT MAIORES PARTES DONATI GRAMMATICI (incomplete at the end).
129 INCIPIT ARS HONORAT[I] GRAMMATICI / DE FINALIBUS SYLLABIS (Servius Honoratus, De finalibus syllabis ad Aquilinum)
37 DE SCANSIONE HEROM EXTREMAE SYILABAE DIOMEDI
GRAMATICI.
463 INCIPIT ARS DIOMEDIS DE METRO; 207
208 INCIPIT LIBER BEDE DE ARTE METRICA
$\rightarrow 257$ INCIPIT DE SCHEMATIBUS SICUT ALII UOLUNT (Bede, De schematious et tropis sacrae scripturae).
278 De inventione litterarum (no title); 282, 283 drawings, 284 blank.
285 IN NOMINE DOMINI NOSTRI IHESU CHRISTI INCIPIUNT / OCTO PARTES ORATIONIS DONATI GRAMMATICI URBIS ROME (Donatus minor).
302 INCIPIT. DECLINATIO. PRIMA. DONATI / GRAMMATICI URBIS ROMAE (Donatus major); 339, 340 blank.
398 INCIPIT TRACTATUS POMPEI IN / QUO 'DO'NATI ARTEM MIRIFICE / COMMENTATUS EST
463 INCIPIT `DE' BARBARISMO; 471 DE SOLOECISMO; 478 DE CETERIS UITIIS; 484 DE META/PLASMO; 490 DE SCHEMA10 TRACTATUS POMPEGI
5 ro Tractatus pompegil de maioribus partibus oraTIONIS (beginning missing)
In this manuscript we find the De inventione text in its natural surroundings : a collection of grammatical writings (some of which, e.g. Pompeius's, also refer to the origins of the Latin alphabet). It may have been inserted to fill the gap between two parts of the manuscript (note that it is followed by three originally blank pages, and that the text on p. 285 ff . partly repeats earlier parts of the codex).
For the De inventione text the scribe chose an arrangement found nowhere else : he began the text of all five paragraphs on p. 278 , leaving sufficient space between each pair of text lines to insert the alphabets, and went on in the same way on pp. 279 and 280. He had, however, made a mistake in allotting
the available space to the five alphabets : below the first line of the text on the runes (p.278) there was no space left for the runes themselves. Therefore, on p. 279 he did not proceed with the text of that last paragraph, but probably reserved it for a later page, where he would be able to give the text and the runes together. So he carried on the text of the first four paragraphs till p. 280, having even to crowd it in on this last page. On p. 278 the text on the runes reads (the parchment being very greasy in places, much of the text has become illegible) :
[Litteras quippe q]uas utu[ntur marcomanni quos nos nor]d[mannos] uocamus infra /
The text of the other four paragraphs shows the following arrangement ( I ) :

$$
\begin{array}{lll}
\text { p. } 278 & \text { p. } 279 & \text { p. } 280
\end{array}
$$

Primo.... . captiui / tatern ........ subtus / ut inuenire ....... verius. thau ....... samnech / nun ............ zai / uau .............. aleph.
Litteras .... ueniens / [iIn greciam . numeros / faciendos ......... possint alfa . . . . . . . . . . th\&a / iota .............. ro / simma ............ nota numeri. Litteras ... dicebatur /inuenisse ...... littere /.III.adiecerunt .... reliqua. Litteras ... inuenimus / quas ................... perdu [xit] /quia ............................ fallimur. [alamon] ..... h\&mu / iofitu ....... [ozechi] / [cho]nizech ...... zotichin.
On p. 281, however, we do not find the whole text on the runes, nor even the part missing after the first instalment on p. 278, but only the end :
/nesque ac diuinationes significare procurant, qui adhuc pagani ritus [inuolu]untur.
The space reserved for the runes remained blank; it is followed by the text on the monograms, (beginning also missing) :
/litterarum unum caracterem pictores facere solitis (i. e.
soliti sunt) quod monagramma dicitur quorum signi-
ficat[...] per pauca adnotata monstrantur,
by five monograms (Simon, Iudas, Iacobus, Bartholomeus, Mathias) and by eleven notae Caesaris (oppidum ... locus religiosus).

It is obvious that one folio is missing after p. 280. This folio must have contained : the middle part of the text on the
(1) Cf. the complete text on p. 349 ff.
runes, and the runes themselves (? cf. infra); the text on the notae Caesaris, and the notae for Augustus - Nero Caesar; the first part of the text on the monograms, and the monograms for Dominus - Facobus ( 1 ). There is no way to decide whether it also contained the text on the notae sancti Bonifatii. As to why this one folio was removed, and by whom, we can only guess. The text of the De inventione given by this manuscript is closely related to that of Goldast's edition, and consequently it is not impossible that Goldast himself is to be held responsible for this depredation-as he was for many others at the expense of the St . Gall library (cf. p. 303).
The set-up of the text was probably due to the compiler's desire to have the corresponding letters of the various alphabets placed approximately one below the other. This would have made the treatise suited for comparative purposes, and would have brought out the idea expressed in another version :
"Litterae enim grecae et latinae ab hebraeis uidentur exortae". But the arrangement would probably have required more careful planning than our scribe was capable of.
A question now arises : did St. Gall MS. 876 ever contain the runic alphabet? Of course we cannot be sure whether it did or did not occur on the missing folio. But since the other alphabets extend over three pages (pp. 278-280), we should at least expect to find the final runes of the alphabet below the text on p. 281 (1). There is an indication that the absence of the runic alphabet may be due to the compiler's doubts about its authenticity or correctness; the text on the Hebrew alphabet ends with a remark not found in other versions: $\rightarrow$ " sed require caracteres earum uerius". The scribe (or his predecessor) may have entertained similar doubts on the point of the runic alphabet.

In the right top corner of p. 28I there are some faint scribbles, which were subjected at one time or other to the action of a
(1) At first sight $X$ believed to have found a rune $y$ and one more, very faint rune in the blank space below the text. But closer inspection showed that these were only the remains of the monograms for Simom and yudas, which were erased and written again a few lines lower, apparently to leave free the space reserved for the runes.
reagent; but apparently without noteworthy results. In the white stain left by the reagent a number of runes may be made out with more or less certainty ( 1 ). Only seven out of a total of nineteen runes (including pseudo-runes?) are not doubtful. The question whether this scribble has anything to do with the absence of the runes in the $D e$ inventione must be left open. Two or three runes in the scribble may be De inventione types.

Although this version is apparently the oldest that has come down to us, there can be little doubt that it is several removes from the original text :
amoy seinuente ( $=$ a moyse inuente); post illorum captivitatem et reuersionis eorum; aliquantas ... qui ad numeros faciendos habiles habentur; quia nonnulla uerba necesse habuerunt sicut in grecis habetur loqui ut Christus est ymnus (corr. from ymnis); gosmographi (cf. Gadmus); in istis adhuc in aliquibus aliis fallimur (for: si in istis adhuc litteris et in aliquibus aliis fallimur uos emendate?); pictores facere solitis ( $=$ soliti sunt); monagramma; per
pauca adnota (= adnotata) monstrantur.
Yet, notwithstanding the absence of the runes and the rather decayed state of the text, the St . Gall version is important : by its age and by being one of the rare localized versions it gives precious indications concerning the transmission of the treatise.
2. Vienna, Nationalbibliothek, MS. 1609 (saec. X). -

This manuscript seems to have been one of the first ever examined for its runic material : Lazius probably edited part of it in his De gentium aliquot migrationibus (1557). He probably acquired it at Freising during one of the journeys he undertook to visit libraries (1551) (2). As early as 1576 the manuscript belonged to the Imperial Library in Vienna. Its origin is unknown. H. Menhardt has shown that both palaeographical and linguistic criteria point to Freising, but ultimately
(1) Cf. Chapter V, p. 422 , 4 . ( 1940 ), $76-84$ (with facsimile).
$\therefore$
a good deal of the contents seems to be derived from St. Gall, int. al. the De inventione text (1).
Parchment binding of 1755; imperial eagle pressed in gold on front and back cover; inscriptions: E.A.B.C.V. ( $=$ Ex Augustissima Bibliotheca
Caesarea Vindobonensi) and $\times 7$,G.L.B.V.S.B. $55(=$ Gerardus Liber Baro Caesarea Vindobonensi) and 17, G.L.B. .S.B. 55 ( $=$ Gerardus Liber Baro
Ven Swieten Bibliothecarius 1755). Parchment of poor quality, orsen torn (e. g. fol. 2). It was formerly referred to as ' no. 828 ' and 'Theol. 732 '. The 70 folios are arranged as follows :
$\mathrm{V}(-2)[\mathrm{x}-8]+5 \mathrm{IV}[9-48]+\mathrm{IV}(-1)$ [49-54; 53 occurs twice:
$53 \mathrm{a}, 53 \mathrm{~b}]+\mathrm{III}(+\mathrm{I})[55-61]+\mathrm{II}[62-65]+\mathrm{II}(+\mathrm{t})[66-70]$.
Format ca. $185 \times 122 \mathrm{~mm}$, written area ca. $160 \times 100 \mathrm{~mm}$; one column,
24 lines to the page. To judge from the handwriting, the manuscript may be dated in the parly tenth century. According to Menhardt, this agrees with the linguistic data provided by the OHG. translation of the 138 th Psalm. $\longrightarrow$ The De inventione hand does not appear again elsewhere in the codex; yet it is probably contemporary. The text on the alphabets seems to have belonged to the manuscript from the very beginning.

Contents ( z )
$\rightarrow$ fol. $\quad \quad^{*}$ On pronunciation (= Martianus Capelifa, De nuptiis III, § 26 r ).
$2^{r} \mathrm{De}_{\mathrm{e}}$ inventione litterarum (incomplete).
$4^{\mathrm{r}}$ The Muses, with their respective domains (from Isidore, Etymologiae VIII, 11, 87); the divisions of music (id., III, 19, 1.5).
$4^{r}$ Sequentiae or tropes, with neumes.
$9^{r}$ Notker Balbulus, two letters.
${ }^{18} 8^{\text {. }}$ Salomo III, Abbot of St. Gall and Bishop of Constance, Liber formularum (3).
(1) H. Minhamdt, Die Uberlieferung, 80 f.

Palaeographie musicale. Les principaux mamuscrits de chant gregorien, ambrosien, mozarabe, gallican, publiés en fac-similes phototypiques par les Benddictins de Solesmes. III (Solesmes, 1892), Pl. 109 A (" neumsa-accents allemands sangalliens '").

On this manuscript cf. also
E. DOmmikr, Das Formelbuch des Bischofs Salomo III. von Konstans. Leipzig, 1857 .
K. Zkumer, Formulae Merowingici et Karolini Aevi (Monumenta Germ. hist., Leg. sect. V. Hannover, 1886, $390-427$.
L. Gautime, Histnive de La poésie liturgique. Paris, 1886, 132, no. 35.
M. Manixus, Geschichte 1,596 .
J. M. Clark, The Abbey of St Gall, 304.
and on the runes
H. F. Massmann, Runet, 256 ff.
W. Grimm, Ueber deutsche Runen, so f.
G. Stephens, Momuments I, 107; III, 13.
T. von Grienberger, Die angelsächsischen nunenreihen, 23 .
(2) Tabulae 1, 261 f.
(3) This Liber formularum is also found e. g. in Munich MS. lat. 19413. But when Menharor says that this manuscript also contains a De inventione
$5^{1}$ Poerm on the five senses; eight epigrams.
$55^{5}$ Definitions of crepusculum, vesper, etc.
$55^{\circ}$ Excerptum de epistolis Hieronymi et aliorum virorum.
$64^{1}$ Notker, fragment of a letter to Chancellor Liutward.
$64^{\text {r }}$ Pseudo-Methodius.
$64^{\text {P }}$ Pseudo-Methodius.
$69^{\prime}$ OHG. translation of the ${ }^{138 t h}$ Psalm.
The De inventione litterarum text shows the following arrangement:
fol. $2^{\mathrm{r}}$, 11. 1-2: closing lines of the excerpt on pronunciation; $3^{-24}$ : the Greek alphabet, with above each letter its name and the corresponding Greek numeral, to the left its Latin equivalent, and below the Roman figure indicating its numerical value. The last three lines give the Greek numerals from ' 2000 ' to ' 10000 ' (dischile - mire mia).
fol. $2^{v}$, 11. 1-8: the text on the Greek alphabet; the initial of [L]itteras was not filled in by the rubricator; 9-24: the text on the Hebrew alphabet, followed by that alphabet from thau to $h e$; above each letter its name, to the left its value. On the last line the names of the remaining four letters, deleth to aleph.
fol. $3^{\text {r }}$, 11. 1 -2 : the remaining letters of the Hebrew alphabet
7 with their yalues; $3-11$ : the text on the Latin alphabet, at the beginning of which the rubricator skipped the initial of [L]atinas; 12-15: the alphabet itself, with above each letter its name ( $a$ be ce, etc.); 16-24 : the text on Aethicus Ister's alphabet.
fol. $3^{v}$, ll. 1 -1I : Aethicus's alphabet, with the names above the letters and the values to the left; 12 blank; $13-19$ : the text on the runes, followed by the alphabet from $a$ to $p$ on 20-25, with above each rune its name and to the left its value.

The rest of the tract is missing. This, I believe, is the strongest argument for identifying Vienna MS. 1609 as Lazius's source.
text, there seems to be some confusion : according to E. Stbinmeytr - E. Stext, thers, Althochdeutsche Glossen IV, 569, the excerpt on pronunciation is followed by a "deutung der hebrilischen buchstaben", apparently = Vienna MS. 1761, fol. 105 ${ }^{7}$-ro6r (cf. p. 302).

His runic alphabet, too, ends with $p$, Perc, for which he gives this explanation :

Cęteræ literę, in eodem antiquo codice desiderantur, \& ob nimiam uetustatem legi non possunt (1).
To be sure, some readings in his edition differ from the Vienna version, in the alphabet itself :

Ac (V. asc), Byrith (V. birith), Chilch (V. gilch),
and especially in the text; but the former may simply have arisen in the act of copying, and the latter mainly consist in corrections to the faulty text. A more serious objection may be found in Lazius's statement that the manuscript which he used contained an annalistic history of the Franks and a genealogy of Charlemagne :

Ac ne dubium ullum sit, Normannos eosdem illos Marcomanorum extitisse posteritatem, in antiquissimis Annalibus, Francorum historiam ac Caroli magni genealogiam continentibus, membrana longe omnium antiquissima scriptis, hęc nominatim uerba excerpsimus ( 2 ).
Yet I do not think we can doubt that Lazius used Vienna MS. 1609 for his edition. Marginal notes from his hand appear on some 42 pages; from this same manuscript he printed part of the 13 8th Psalm (in OHG.) in his De gentium aliquot migrationibus (p. 8r). The chances that two manuscripts of De inventione litterarum should be mutilated in such a way, and that in both the lacuna should begin after the $p$-rune, are slight indeed. The deviations appearing in the text and in the alphabet are easily accounted for by Lazius's editorial technique; his text of the OHG. Psalm is also quite different from the manuscript original (3). His explanation of the lacuna in his edition of the treatise on the alphabets shows clearly that he did not have the manuscript before him when he wrote his comment.
Although fairly old, the text of Vienna MS. 1609 can hardly
(1) W. Lazrus, $D_{e}$ gentium aliquot migrationibus, 645 .
(2) W. Lazrus, De gentium aliquot migrationibus, 644 .
(3) H. Mrnhardt, Die Uberlieferung, 79. From Mrnhardt's account we may perhaps infer that Lazius mixed up Vienna MS. 1609 and another Freising
codex (one containing Otro of Frasmc's Historia). 298
be a copy of the original. Its mistakes (e. g... Litteras ... quas utuntur Marcomanni ... scriptas habentur; a quibus originem ... tradunt) will also be found in other versions. The whole is written with evident care (although the scribe did not take the trouble e.g. to restore the right order of the paragraphs); therefore we can only regret that the end of the treatise is lost. Fortunately we have fairly good substitutes in Vienna MS. 1761 and in Goldast's edition.
3. Vienna, Nationalbibliothek, MS. r76r (saec. XII).

The Latin and OHG. glosses of this manuscript have thus 7 ? far been its main point of interest (1). Yet its runic alphabet was known as early as W. Grimm's time (2). In fact, as far as the De inventione text is concerned, it comes quite close to Goldast's version; but I believe there are sufficient reasons for supposing that Goldast used a different exemplar (cf. p. 370 f.).

For our purpose this version is of special interest. Here the De inventione text has been incorporated into a mass of collectanea : obviously intended for use in schools. Such collectanea have unfortunately received little attention thus far, and when they were examined, it was mainly in order to trace the sources of the constituent parts, rather than to study them as autonomous entities (3)

The manuscript once belonged to Sebastian Tengnagel, prefect of the Imperial Library in Vienna from 1608 to 1636 (fol. I ${ }^{r}$ : Ex libris Sebastiani Tengnagel, I.V.D. et Caes. Biblioth.). Formerly it was numbered ' 64 ' and 'Theol. 863 '. Its origin is unknown. From the binding Steinmeyer inferred
(I) E. Strinmbyer - E. Susvirs, Althochdeutsche Glossen IV, 643-646; $\mathrm{V}, 108 \mathrm{ff}$.
(2) W. Grimm, Ueber deutsche Runen, 80 f.
G. STzPhens, Monuments I, $111 ;$ III, 13 .
T. Von Grienarrger, Die angelsächsischen runenreihen, 23.
(3) The excerpts are mostly taken from Isidore, Eucherius or perhaps from any indication of origin, that we may safely assume that they had become standing ingredients of an elementary cycle of Mediaeval studies.
that the codex came from Mondsee (1). Dr. F. Unterkircher, however, would rather place it in Western Germany. Through its collection of glosses it is closely related to Steinmeyer's C on the one hand, to St. Gall MS. 295 on the other (2). With to the latter it shares part of the didactic material referred to supra; more of it is found in St. Gall MS. 899, Munich MS. lat. 19413, Vienna MS. 2732 and probably many more.
Fifteenth century leather binding over wooden boards with two clasps darnaged). Heavy parchment, well preserved. The composition of the codex is rather involved; according to Steinmeyer it is made up of two originally independent manuscripts : $A=$ fols. $1-63, B=$ fols. $97-183$, to which further material was added when the two parts were brought together. Arrangement

3 IV $[1-24]+\mathrm{IV}(+\mathrm{I})[25-33]+3 \mathrm{IV}[34-57]+\mathrm{II}[58-63]+\mathrm{V}$ $[64-73]+\mathrm{IV}(+\mathrm{I})[74-82]+\mathrm{V}[83-92]+\mathrm{II}[93-96]+2 \mathrm{IV}[97-112]$ $+V[113-122]+I V[123-130]+V[131-140]+N[141-148]+2 V$
$[149-168]+3$ IV [169-191; two fols, marked 182] + IV (+ 2) [192-201]
+4 IV [201510-232] + ? [233-239: mostly single folios] $+\mathrm{I}(+2)$ (240-243).
At least one quire is missing after fol. 8 and one after fol. 122 . Format $111 \times$ 90 mm ; written area on the average $70 \times 56 \mathrm{~mm}$; one column; $11-17$ line to the page. The codex is written by severai hands; from the set-up it appeare hat the De inventione text belonged to the manuscript from the very beginning. Contents (3):
fol. $\quad \mathbf{I}^{\mathbf{x}}$ Biblical glosses covering Genesis-Ruth (including OHG. glosses), $\longrightarrow 97^{\text {r }}$ On pronunciation (Martianus Capella, De nuptiis III, § 216).

97 De inventione litterarum (with accessory materinl; no title) and non-alphabetic items, roz $^{\text {r }}$ Hadrian, "Animula nudula ibis ad loca pallidula, etc. "; explanation of artemon; $\mathbf{1 0 2}^{\mathrm{V}}-103^{1}$ : on the nymphs (Isidore, Etymologiae VIII, 11, 87); 103 ${ }^{\text {² }}$ blank.
$108^{r}$ De talentis; 108 Inventors (" Uulturnus. Inventor ferrariẹ artis, etc. "); names of the winds in Lat. and OHG.; rog' names of the months in Lat. and OHG.; 109" Amor ab oculis oritur, etc.; on the four cardinal virtues; $110^{*}$ De medicina; $112^{\top}$ De X nominibus
Dei (Isidore, Etym. VII, 1); De diis gentium (Ibid, VIII, II, 1,2 );
 ions of music (Isidore, Etym, III, 19, 1); definition of epicerema; $114^{7}$ table with the degrees of consanguinity; $15^{5}$ consanguinity terms, with OHG. glosses; $116^{*}$ Xenodochium est locus uenerabilis, etc.; $117^{\text {r }}$ explanations of isagoga, natura, persona, periermenie, catagorie; $117^{v}$ the order of Creation; $18^{\mathrm{r}}$ De omatu ecclesiae; $118^{\circ}$ De edificiis; de vasis; $119^{\circ}$ De ferramentis; 120 ${ }^{\circ}$ De culturis
(1) E. Stbinmeyrr - E. Siryers. Althochdeutsche Glossen IV, 643.
(2) E. Steinmeykr - E. Sigvers, Althochdeutsche Glassen V, 108 ff
(3) Full details in F. Strinmeyer - E. Sievers, Althochdeutsche Glossen, IV, 643 ff. cf. also Tabulae I, 887 f.
 muliebra (from r $^{87}$ with OHG. glosses).
123 Excerpts from Isidore, Etymologiae.
$123^{2}$ Excerpts from 1 sidore, Etymologiae.
$126^{*}$ [SJrri et caldei unum sunt, etc. (glosses Jerome's Prologus galeatus). $126^{v}$ Biblical glosses (continued) to Kings I, etc.
$214^{\text { }}$ Hrabanus Maurus, De clericorum institutione I, 14-23
$217^{\mathrm{r}}$ Glosses to the Psalms; 241 ${ }^{\circ}$ Glosses to Hebrews, Apocalypse.
The $D e$ inventione material shows the following order :
fol. $97^{\mathrm{V}}, 11 \mathrm{l}$. 1-17: the Greek alphabet from $A$ to $H$, with above each letter the corresponding Greek numeral and the name of the letter, to the left the Latin equivalent and below the Roman figure indicating its numerical value. The last line contains the numerals enneca (9) - seranta (40), corresponding to the first five letters on the next page.
fol. $98^{\mathrm{r}}, 11.1-8$ : the rest of the Greek alphabet (same arrangement); the scribe omitted the name of the $M$. At the end of the alphabet there is a reference mark repeated to the left of 1.15 , where the Greek numerals for ' 2000 ' - ' 10000 ' (dischile - mire mia) are given; $9-14$ : the text on the Greek alphabet, which is completed on fol. $98 \mathrm{v}, 11.1-4$.
fol. $98^{\mathrm{v}}, 11.5^{-11}$ : the text on the Hebrew alphabet; the last word is incomplete : litte[rarum]; 12-15: the letter thau - he of the Hebrew alphabet, with for each its name and value. In the last line only the names of the remaining four letters were written; the letters themselves and their values are found on fol. $99^{r}$ 11. I-2.
fol. 99r, 11. 3-14 : the text on the Latin alphabet, followed by that alphabet from $a$ to $x$; above each letter its name : $a, b e, c e$, etc.
fol. $99{ }^{2}, 1.1: x$ and $z$ of the Latin alphabet; $1-10:$ the text on Aethicus Ister's alphabet, with, on 11. 11-14, the letters alamon - theotimos with their values and names.
fol. 100r, ll. 1-2: the rest of Aethicus's alphabet; 3-11 : the text on the runic alphabet; 12-14: the alphabet
itself, $a-q$, with above each rune its name, to the left its value.
fol. roov, ll. I-2: the rest of the runic alphabet. After $z$ : Item, and another runic alphabet (3-6); 7-14 : monograms, continued on fol. ror ${ }^{r-v}$.
fol. $104^{\mathrm{r}}, \mathrm{ll} . \mathrm{x}-\mathrm{Ix}$ : text on the notae Caesaris; the notae themselves are not given, although the text refers to them (ut supra in paucis ostensum est : yet fol. $103^{v}$ is blank!); 11-14 : the formula for the dotted notae sancti Bonifatii ( $a=:, e=\vdots, i=, o=::, u=: \because$ ) and an example (transcription: INCIPIT VERSUS BONIFACII ARCHIEPISCOPI GLORIOSIQUE MAR/104/ TIRIS).
fol. $104^{\mathrm{v}}, 11 . \mathrm{x}-11$ : the text on these notae, followed by the formula for the substitution variety ( $B$ for $A, F$ for $E, K$ for $I, P$ for $O$ and $X$ for $U$ ), and by an example (transcription: KARUS CHRISTUS FORTIS TIRO. INSTAP [for INSTAR] SAFFIRO / 105 \%/ ARCHI TENENS .SCRIPTOR REGNI UT DECUS AURI).
fol. 105r 11.3 -7: a key for cryptic writing based on the Greek figures. It shows exactly the same simplifications and misunderstandings as that in Vatican MS. Regin. lat. 421 (cf. the Appendix to Chapter II); 8-15: a key to a system of cryptic writing copied from the isruna : the Latin alphabet is divided into three groups of six and one of five letters (see also the Appendix to Chapter II).
fol. $105^{\mathrm{v}}$, 11. 1-5 : a fictitious cryptic alphabet; 6-11: a key to cryptic writing, in which the Roman figures I -XXIII are substituted for the letters $a-z ; 12-13$ : a concordance of the Greek letters $A-K$ with the Roman figures I - XI (error for XX ?). These two devices are also found in the Vatican manuscript. L. 14 begins an explanation of the names of the Hebrew letters (ALEPH Interpretatur doctrina, etc.).

The De inventione text in this handy little codex is not only very full, but has apparently received some additions : a second runic alphabet, not found in any of the other versions; several cryptic alphabets, one of which is connected with the Greek numerical system, two perhaps ultimately with the isruna tradition; interpretations of the Hebrew letter-names. Even some non-alphabetic material has found its way into it, endangering the continuity of the treatise; the notae Caesaris were omitted. It is not easy to decide whether the scribe of Vienna MS. 1761 may be considered identical with the compiler responsible for those additions, or whether he found them in his exemplar. If I prefer the latter explanation, it is because it may account for the somewhat disorderly appearance of the whole. The scribe seems to have proceeded rather carefully, but with little understanding for his text; this will appear from the mistakes it has in common with Vienna MS. 1609, etc. This also applies to the runes: the scribe took pains to copy irrelevant or spurious details as well as essential features.

> 4. Melchior Goldast, Alamannicarum rerum scriptores aliquot veteres ( I 606 ) (1).

Melchior Goldast, or, as he termed himself, Goldast von Haiminsfeld, was one of the wandering scholars typical for his period (2). He was born in Espen near Bischofszell in 1576 or 1578 and studied in Ingolstad and Altdorf. For some time he lived in St. Gall and Geneva, received a doctor's degree in Heidelberg and collected a remarkable library, apparently not always by the most honest means. He was actually brought to trial by the Council of St. Gall for having damaged manuscripts and for having removed folios and even entire manuscripts and books. Goldast denied the charge, but was found guilty and condemned to a fine. During the Thirty Years' War
(1) H. ArNTz's entry in his Bibliographie der Runenkunde, 69, no. 1067 seems to mix up three things : Goldast's Suevicarum rerum scriptores (i605), the first edition of the Alamannicarum rerum scriptores, and the 1730 edition of
the latter work, where the runes actually occur in the volume and on the page the latter work, where the runes actually occur in the volume and on the pag (2) D.
(2) Dectionnaire historique et biographique de la Suisse 1II, 485.

Goldast, who had not returned the produce of his activity to St. Gall, found a safe refuge for it in Bremen. After his death in 1635 it was acquired by the authorities of that town, and as a result a good deal of material relating to St . Gall is still kept there.
The second volume of his Alamannicarum rerum scriptores contains, besides the Lex Alamannorum and a collection of charters, a few short texts attributed to Hrabanus Maurus and Walahfrid Strabo, and the Keronian glossary. Goldast is our only authority for the title under which the treatise goes, and for the attribution to Hrabanus Maurus. The inscription in his edition is: Hrabani Mauri Abbatis Fuldensis, De inventione linguarum ab hebraa usque ad theodiscam, et notis antiquis. Since Goldast's original does not seem to have come down to us, we cannot be absolutely sure whether he did actually find some or other title in his exemplar, or whether he simply invented one. But the latter is no doubt the more obvious explanation : no title occurs in any of the versions that have come down to us.

The De inventione text is found on pp. 91-93 of Goldast's work. It is arranged as follows:
p. 9 x : the text on the Hebrew alphabet, followed by that alphabet; each letter is preceded by its value, the names are written above the letters. The order of the letters is thet - aleph/phe - ioth thau - sade. Then comes the text on the Greek alphabet, followed by the letters, with above each its name, to the left its Latin equivalent, and below the Roman figure indicating its numerical value. The text on the Latin alphabet, which begins on this page, is continued on
p. 92; then comes the alphabet (capitals) with above each letter its name ( $a$ be ce, etc.). The paragraph on Aethicus Ister's alphabet comes next, followed by those 'Istrian' letters' (name above each letter, value to the left). The text on the runes, with the runic alphabet (same arrangement of names and values) closes the series of alphabets. A set of twenty-three
notae Caesaris precedes the text on that device. The paragraph on the notae sancti Bonifatii, continued on p. 93, is preceded by the dotted variety and followed by the $a-b$ variety of that script. The whole is completed by the text on the monograms and a series of eighteen examples.
Apart from the substitution of $v$ for consonantic $u$, and of $x$ for $\ell$, there are very few differences between the first edition of 1606 and that of 1730 , and none in the text relating to the runes, nor in the runic alphabet ( I ). The engravings cut to facsimile the runes and the letters of the other alphabets seem to have been made with great care. The only peculiarity is presented by the 2 ist and 23 rd runes. The other versions all have the OE. ea-rune for $z$, and a form derived from the $x$-rune for $x$; in Goldast's edition the two forms have been interchanged. On the relation of Goldast's text to the manuscripts known to us ${ }_{\text {b }}$ cf. p. 345 ff.
5. Heidelberg, Universitätsbibliothek, MS. Salem 9.39 (saec. XII ${ }^{2}$ ).

The runes of the Heidelberg manuscript were first edited by K. Bartsch eighty years ago (2). The De inventione text itself, however, seems not yet to have been examined; in fact the whole manuscript has received very little attention thus far It seems to belong to the oldest stock of the library of the Cistercian monastery at Salmansweiler (' Kloster Salem') founded in $1 \times 34$. Some of the manuscripts of this oldest group came from France, others were written in Germany (3). The origin of MS. 9.39 is unknown; but we shall see that its De inventione
(I) In the 1606 copy of the Koninklijke Bibliotheek in Brussels the $r$ of Nordmamnos fell out; 1 could not ascertain whether this also happened in other (2) of the same edition.
(2) K. Bantsch, Handschrift mit Hrabanus' Alphabete. Germania 17 (1872), 407 f.
(3) P. Lermann et al., Bibliothekskataloge I, 284 ff .
text is based on type A, which probably means that it originated in Germany.
Pressed pigskin binding over wooden boards, two clasps. Parchment of varying thickness, well preserved; 133 folios, mostly bound in quaternions. Format $345 \times 23 \mathrm{mmn}$, written area $265 \times 80 \mathrm{~mm}(\times 2), 2$ columns with $45-47$ lines each. The manuscript was written in the latter half of saec. XX. wice we find en abbeviation H which can be explained either as $\mathrm{I} \mathrm{r}=$ outcem, or as $\#=e$ enim; 7 for et is fairly common.
Contents:
fol. $2^{0}$ Capitula; Isidore, Epistola ad Braulionem.
${ }^{12}{ }^{\circ}$ Isidore, Etymologiae.
${ }^{3} 3^{20}$ Greek-Latin glossary ( I ).
${ }^{3} 33^{7-r}, x^{\mathrm{r}}, 2^{\mathrm{r}}$ Dérinventione litterarum (no title).
The De inventione text was added by a different but contemporary hand, which, since fol. 133 did not offer enough space, inserted the remaining monograms on fols. $\mathrm{I}^{\mathrm{r}}$ and $2^{\mathrm{r}}$. Owing to rubbing, the text has suffered so as to become almost illegible in a couple of places. It shows the following arrangement (cf. plate VIII a) :
fol. $133^{\text {rb }}$, 11. 16-35 : the Greek alphabet, each letter accompanied by its Latin equivalent, name, numerical value in Roman figures, and the Greek numerals mia - chile; these last are continued to mire mia on 36-37; $39-44$ : the text on the Greek alphabet; 45-46, and fol. $133^{\mathrm{va}}$, 11. 1-10: the text on the Hebrew alphabet, followed by the alphabet itself with the names and values of the letters (11-19); 20 blank.
fol. 133 ${ }^{\text {va, }} 11.21+28$ : the text on the Latin alphabet; 29-30 blank (or erased ?); 31-37: the Latin alphabet, with the names of the letters; 38 blank; $39-44$ : the text on Aethicus's alphabet; 45-52, and
fol. $133^{\mathrm{vb}}$, 11. 1-6: Aethicus's alphabet, with the names of the letters; 7 blank; 8-12; the text on the runes; 13-25: the runic alphabet, with above each rune its name;
(1) Related to the hermeneumata Einsidlensia and the hermeneumata Vaticana; quite close to the fragmentum Bruxellense (CGL III, 393 f .), but offering a better text.

26-27: blank; 28-32: the text on the notae Iulii Caesaris; 33 blank; 34-35: the punctuated notae sancti Bonifatii; 36 blank; 37-41 : text on the notae sancti Bonifatii; 42 blank : $43-46$ : the substitution variety of these notae; 47-52: an alphabet with the numerical values of the letters : $a=\mathrm{I}$ to $z=$ XXIII.
fol. $\mathrm{I}^{\mathrm{r}}$ : Twelve monograms in an ornamental frame (Matheus - Paulus), followed by a list of notae Caesaris (Augustus - Marcus Caesar) [fol. ${ }^{\mathrm{V}}$ : a map of the world, in a circle].
fol. $2^{\text {r }}$ : Six monograms in an ornamental framework (Dominus - Iacobus, with Hebrew, Greek and Latin equivalents, e. g. hebraice hel, grece $\Theta E O C$, latine deus); notae Caesaris (Nero Caesar - Comes); one more monogram under the inscription Pacificus fecit (but the monogram contains $\mathrm{M}, \mathrm{N}, \mathrm{L}$ and O ); a rota with the inscription spera pitagori; a Latin alphabet with numerical values ( $\mathrm{A}=\mathrm{III}, \mathrm{B}=\mathrm{XXVF}$, etc., cf. p. 335).
This arrangement indicates that the De inventione text was added after the manuscript had been completed, and in such places as the set-up of the codex still afforded. This led to some confusion : the text on the monograms was omitted. It is not impossible, however, that the lacuna occurred in the exemplar of the Heidelberg manuscript : the same text is missing in Vienna MS. 1761. The text of the Heidelberg version is very full, at least in the initial paragraphs. It shows a shifting of elements which we have met before: instead of opening with the text on the Hebrew alphabet and that alphabet itself, it has the Greek alphabet first; the explanatory text follows. This finding has some importance for the history of the De inventione treatise. Equally important are the traces of an insular prototype (or one exhibiting insular peculiarities) in the Heidelberg text. The alphabets show as a rule very little wear; the runes e. g. appear in remarkably genuine forms, especially if one considers the late date of the manuscript. It
was probably copied from a much older exemplar, which can only increase its value.

## 6. Nürnberg, Germanisches Nationalmuseum, MS. y966

 (Rl. 6gIz) (saec, XII ${ }^{1}$ ).This manuscript formerly belonged to the library of Freiherr von und zu Aufsess, the founder of the Museum. Its further history is unknown : former marks of ownership seem to have been erased or cut away. As closely related versions were written in Southern Germany or Austria, the same may probably be assumed for the Nürnberg manuscript
Modern binding (19th century). Parchment of medium thickness, well preserved, slightly turning yellow. The 124 folios originally formed fourteen quaterions and one sextermion, $w 2$ folios remin Formet $285 \times$. 91 and written area $220 \times 140 \mathrm{~mm}$; one column fols. $\mathrm{r}-120^{\circ}$, two $120^{\mathrm{V}}-122^{7} ; 34$ lines to the page. Two acribes seem to have written this codex : $A=$ fols. $\mathbf{1}-120^{\circ}$, $\mathrm{B}=12 \mathbf{0}^{\mathrm{V}}-122^{\mathrm{v}}$, not later than saec. XII med.; they are practically contemporaries.

Contents :
fol.
${ }^{r}$ fragment on vices ( ${ }^{2}$ )
$\mathrm{I}^{v}$ list of Latin words. Then (in uncials) : Incipit in moralia / Job Beati Gregorii / Pape Urbis Rome / Pars secunda / Liber 2ovan Confictur qui sub Christo mundo certatis, in isto / Discite uirtutum qui sub Christo mundo certatis, in isto / Discite uirtutum $20^{\text {rb }}$ Liber sententiolarum.
21 $^{\text {va }}$ De inventione litterarum (no title).
$122^{\text {rb }}$ Greek numerals with corresponding Roman figures: I mia, II dia, III tria ... DCCCC miacusin. One line blank. Notes on various words: isolemnitas, scoria, sinapis, sacriegiums.
The thirty roads of Rome; the seven hills (end missing),
22. was or ${ }^{\text {gitinally }}$ blank; later were added a German poem ( $5 \mathrm{x} / 2$ was originaly blank; later wer
lines) and two lines of Latin.
The De inventione text is arranged as follows:
fol. $1.21^{\text {va }}$ : the text on the Hebrew alphabet, followed by the first seven letters (the order being reversed thauain); above each letter its name, to the left its value.
fol. $12 \mathrm{I}^{\mathrm{vb}}$ : the remaining Hebrew letters (samech - aleph); the
text on the Greek alphabet, and that alphabet itself, with above the letters their numerical value and their name, to the left their value. After the symbol for ' 1000 ' : mutatorię litterę / Ab. Fe. ki. Po. xu, i. e. the key to the substitution variety of the notae sancti Bonifatii (the first pair should be Ba). Finally, the text on the Latin alphabet, which ends on
fol. $122^{\mathrm{ra}}$, and is followed by a majuscule and by a minuscule alphabet; above the letters of the latter the Roman figures I - XXIII were inserted, this giving the key to a variety of cryptography.
The text on Aethicus Ister's alphabet, and that alphabet itself; the text on the runes, followed by the runic alphabet.
The exemplar used by the scribe seems to have been a rather poor one; especially in the last two alphabets there are obvious signs of 'wear'. In Aethicus's alphabet the letters $c$ and $d$ have become one symbol; the next three were shifted one place to fill the gap, and the order was restored only by dropping the name of the $g$; at the end of this same alphabet, too, the scribe had quite some trouble to get the letters under the right names. The runic alphabet shows a spurious vertical stroke (practically a second $i$-rune) between $m$ and $n ; b, k, n, p, r, s, t$ have decadent forms, and this first impression is strenghthened by the rest of the treatise
Yet the scribe (or a contemporary corrector) took some trouble to give a correct text : in the paragraph on the Latin alphabet greci [litteras] was corrected to grecas, in that on the runes teotiscam to theotiscam.
Many of the errors and peculiarities enumerated above are also found in the other manuscripts; cf. the general discussion on p. 345 ff .
7. Vienna, Nationalbibliothek, MS. roro (saec. XII).

This manuscript has received very little attention thus far, at any rate from runologists.

It may have originated in St. Florian (Upper Austria); it belonged to the library of this Augustine Abbey in the 15 th century, as appears from entries on fol. $\mathbf{1}^{\mathrm{r}}$ and $78^{\mathrm{v}}$. As early as 1576 it belonged to the Imperial Library in Vienna. From Tengnagel's hand it received no. 99, from Blotius's M 3869.
The binding, white calf over heavy wooden boards, is of the 14th century (repaired 1911); two clasps are missing. Strong parchment, well preserved. The 166 folios show the following arrangement :
$10 \mathrm{IV}[\mathrm{r}-80]+$ ? $[8 \mathrm{~B}-89]+\mathrm{I}[90-91]+3 \mathrm{IV}[92-115]+\mathrm{II}[116-119]$ $+?[120-124]+1[125-126]+5$ IV [127-166].
${ }^{*}=$ fy-leaf from a 13 th century hymnary; ${ }^{*} \mathbf{z}=\mathrm{a}$ fly-leaf from a 12 th century liturgical manuscript. Format $270 \times 190 / 195 \mathrm{~mm}$, written area $200 \times 130 \mathrm{~mm}$; one column, 26 to 32 lines to the page.
Contents ( I ) :
fol.
1 $^{7}$ Caecilius Cyprianus, Duodecim abusiva.
${ }^{10}$. Augustine, Dicta de disciplina christianoru
$8^{*}$ Martin of Braccara, Libellus de quattuor virtutibus.
$3^{*}$ Ansbert of St. Vincent, Sermo de cupiditate.
$35^{*}$ Augustine, Soliloquia.
$62^{x}$ Baudemundus, Vita $S$.
$62^{\text {F }}$ Baudemundus, Vita S. Amandi (excerpt).
$63^{*}$ Passio S. Columbae.
$74^{\text {r }}$ Pseudo-Jerome, Epsitola St. John Chrysostomus. S. Mariae.
$90^{\circ}$ De inventione litterarum (no title).
$9^{0^{*}}$ De vocibus varium animantium
$\mathbf{9 2}^{\mathrm{r}}$ Ambrose, De paradiso (from De myrteriis).
$111^{v}$ Ambrose, Disputatio de servanda animae puritate.
$119^{1}$ De Salomone (excerpts from Augustine, Gregory, etc.)
$120^{*}$ Ambrose, De poenitentia.
$125^{r}$ Ambrose, $D e$ mysteriis (cf. fol. $92^{T}$ ).
${ }^{133^{2}}$ Ambrose, De poenitentia (continued from fol. $124^{7}$ ).
$165^{\circ}$ A prorse, De sacramentis (fragn.).
A parallel between the Ten Commandments and the Ten Plagues of Egypt
As the De inventione text occurs on an independent double folio, it is not possible to decide for sure whether it belonged to the manuscript from the very beginning. At any rate it was written by a contemporary hand, and must have belonged to the bulk of the codex when it was bound in the fourteenth

## (1) Tabulae 1, 175 ;

H. J. Hrrmann, Die deutschen romanischen Handschriften. (Leipzig, 19z6), 185-188, with further bibliography.
century. There is even a better reason for supposing that it was part of the codex at a very early date : in the closely related Munich fragment it is also found in the neighbourhood of the Physiologus Chrysostomi. This can hardly be a coincidence, so the two texts must have been found together in the common ancestor.
The text of the De inventione litterarum is crowded in rather badly :
fol. $90^{r}, 11.1-4$ : the text on the Hebrew alphabet, followed by that alphabet $(5-7)$, with the names and values of the letters (order: thau - aleph); 7-12: the text on the Greek alphabet; 12-15 this alphabet, with the equivalents, the names of the letters and their numerical values in Roman figures; 16-20: the text on the Latin alphabet, followed by the alphabet, majuscules and minuscules (21-22); 23-28: the text on Aethicus Ister's alphabet.
fol. $90^{\text {v }}, 11.1-3$ : Aethicus's alphabet, letters, values and names; 4-7: the text on the runes, and the runic alphabet; runes and names (8-11); 12-16 : the text on the monograms, with one example (DOMINUS). L1. 17 ff. : Voces variae animantium.
The letters of the various alphabets (including the runes) have been partly filled with red, or ornated with red dots. This evident care hardly compensates the poor state of the text in a number of places. Aethicus's alphabet can hardly be deciphered as names, letters and values are badly entangled. But a comparison with closely related manuscripts will show that most of the real blunders in the text come from the prototype. Moreover a number of mistakes were corrected by the scribe : fol. $90 \mathrm{r}, 1$. 10 litterarum has $a$ from $u ;$ 1. II adiuncti from adiuncte.

The runes received rather more space, and the names are carefully written above them. Their forms show little understanding on the part of the copyist; yet they were probably imitated fairly carefully.

This fragment was identified some ten years ago and edited (with facsimiles) by I. O. Plassmann and W. Krause. I was unable to collect information on its origin and history. The antiquary A. Weinmüller lent it to Plassmann, who gave a brief account of it ( I ). It consists of 10 folios measuring $285 \times$ 205 mm . Contents :
fol. 1 : De inventione litterarum (no title).
fol. 2 : Physiologus, ascribed to Chrysostomus.
According to Plassmann, the manuscript was written in Austria ca. A. D. 1100 . The De inventione text is arranged as follows : fol. $\mathrm{I}^{\text {r }}, 11.1-3$ : the text on the Hebrew alphabet, followed by that alphabet (letters, values and names : 4-5); 6-9: the text on the Greek alphabet, and that alphabet (ro-12, same arrangement); 13-16: the text on the Latin alphabet, followed by a minuscule alphabet (17-18; only one capital, A, is given); 19-23: the text on Aethicus Ister's letters, and those letters themselves with their values and names (24-27); 27-30: the text on the runes.
fol. $I^{v}$, 11. i-6 : the runic alphabet, with above each rune its name. It is followed immediately by the text on the monograms ( $7-11$ ) and one monogram (Dominus).
The text shows a few corrections : hebraice has been added in the first line (mark between littere and lingue); in the paragraph on the runes iteotiscam has been corrected to itheotiscam. A couple of letters were repeated in the margins, int. al. the $f$-rune at the top of fol. $I^{v}$, just above the corresponding rune of the alphabet.

The whole is written with care; some effort has been made to give an artistic touch to the initial of each paragraph, and the letters themselves (e. g. the runes) were obviously copied without loss of details, nor with malformations of any importance.
9. Vatican Library, MS. Regin. lat. 294 (saec. XI/XII) (1).

The collection of alphabets in this manuscript stands in a class by itself : it is obviously derived from De inventione litterarum, but the text has been much shortened; on the other hand new items have been included. In fact this version is an attempt to adapt the old treatise to the needs of a period which had a better knowledge of Hebrew and especially of Greek than was current at the end of the eighth century.
The manuscript once belonged to the Cistercian Monastery of Langheim near Bamberg, founded in 1133 by monks of the Abbey of Ebersberg in Bavaria (fol. Ir " liber sancte marie i(n) lanchheim" saec. XIII). In the sixteenth century it was in the possession of the humanist N. Petau (fol. $3: \mathrm{Nu}^{\mathrm{ro}} 60$. N. Pet. 1656, and below : volumen LX. Non Petaúianum); afterwards it belonged to the library of Queen Christina of Sweden (where it was no. 1896 or 1898 ) and with that collection it was incorporated into the Vatican Library.
Red leather binding (last quarter of the eighteenth century), stamped with the arms of Pope Pius VI and Cardinal F. X. de Zelada. Firm, somewhat greasy parchment; the last quire has much suffered from damp,ess. Comosition : 15 quires, numbered on the first page (aec. XVI)
(1-2) +7 IV $\left(3-58 ;\right.$ fol. $21^{2}$ is a single folio inserted after fol. 21) +1 $(59-62)+6 \mathrm{VV}(63-110)$.
At the end one quaternion seems to be missing (cf. infra). Format approximately $260 \times 180 \mathrm{~mm}$, written surface $210 \times 133 \mathrm{~mm}$; one column, 53 lines to the page. Written by one scribe (except fol. $21^{8}$, which is by another but century. The same scribe made a number of marginal additions (int al on fol. $29^{\circ}$ the OHG, names of the months: Wintarmanath, etc.); other marginalia in saec. XIII and XV hands. In the seventeenth century a reader transcribed some rubrics which had much faded (fol. $\mathbf{I}^{\mathrm{V}}$ ).
Contents (2):
fol. $\mathrm{I}^{*}$ A collection of alphabets (cf. infra)
$3^{1}$ Isidore, Epistolae ad Braulionem, et vice versa (Letters IX, X, XI XII, XIII).
$4^{\text {² }}$ Isidore, Etymologiae. The text breaks off in Book XIX, so at least one quire must be missing.
The inclusion of the alphabets may be due to the scribe's
(1) A. Whanart, Codices II, 125 ff .
(a) A. Wilmart, Codices II, 125 ff .
wish to have a blank first page. Since the text of the Epistolae began on a recto side, the simplest way to obtain a blank page at the beginning was to insert one leaf (two folios). This then left 3 pages ( $\mathrm{I}^{\mathrm{v}}, 2^{\mathrm{r}-\mathrm{v}}$ ) which could be used for various notations. Our scribe filled them with a number of alphabets which would come handy at the stage where the Etymologiae were used in school. Of course there can be no question to call the runes in this manuscript "Isidori-Runen ", no more than in the case of Brussels MS. 93 II-9319 (cf. p. 66)
The renovated De inventione version shows the following arrangement :
fol. $\mathrm{I}^{\mathrm{V}}$ (1) a Hebrew alphabet, inscribed: Litere hebraice XXVI. quibus nunc utuntur iudei. The alphabet is of the square Hebrew type and has in fact 27 letters, with above each its name, in the order thau - aleph. A number of variant forms are included (zadic and zadi, phe and pe, nún and nûn, mém and mêm, rchaph and kaph).
(2) a Greek alphabet with the inscription LITERE GRECORVM. The letters are inserted in the middle of their names : al $A$ pha, beBta, etc. The names show that this alphabet belongs to the De inventione tradition, e. g. epismon lauta simma; the symbol кómaa and the numerals at the end have however, been omitted (but cf. fol. $2^{r}$ ).
(3) a cursive Greek alphabet, inscribed LITERF VVLGARES GRECORUM. Above the letters their Latin equivalents have been indicated, in three cases the names : ita thet psi. This alphabet is obviously of a later date than the preceding one, although the two were copied at the same time.
(4) the series of graeca is continued with a list of the Greek diphthongs: DYPTONGI GRECORUM : $A_{\imath}=e, E \iota=i, O_{\imath}=y, O y=u, A y=a u, E y=e u$ (repeated each with initial $C: C a \imath=s e$, etc.), followed by a short comment : Sciendum est quod greci quasdam sillabas pronunciant / aliter quad
scribunt. dyptongos scilicet. ut ai dyptongus per e breue $m$ ut kai $q u o d$ sonat ke. \& oi pro i. \& oy pro u./ \& u uocalem sono i producte exprimunt.
(5) CASUS GRECORUM : ONOMATIKHC nominatiuus, etc.
(6) ARTICULI IPSORYM : O hic, TOY huius, etc. Each of three lines gives the forms for one gender, as indicated at the end of each line : Masculini/ ... Femin[ini] / ... Neutrales.
(7) LITERE quibus utuntur marcomanni (1) id est northmanni a quibus originem trahunt qui theotiscam locuntur. This much faded rubric was repeated in the lower margin by a seventeenth century hand (var.: Nortmanni; loquuntur). The runes are arranged in two lines, $a-n, o-z$, with above each its name, and to the right (except $a$ : to the left) its Latin equivalent.
(8) L[I]TER[E] ethici philosophi quas Hieron[imu]s usque ad nos perduxit, repeated in the right margin by the same seventeenth century hand (var.: Aethici... Hieronymus). The alphabet covers two lines : alaman - nabaleth / ozechi - zeta.
(9) Notes on the declension of the names of the letters and of numerals: Om $n$ ia literarum nomina ta $a$ apud hebreos qua $m$ apud grecos $\&$ latinos indeclinabilia sunt, etc.
fol. $2^{\mathrm{r}}$, in 8 vertical columns.
(1) the Hebrew alphabet usually found in the De inventione tract; here it is inscribed: Hebraice litere / XXII primo inuente / a moise 7 ab ezra renouate. The letters are ornated with colour patches; to the left of each is its Latin equivalent, to the right its name.
(1) A. Wilmart, Codices II, r25, reads marcomannici, obviously misled by i . $=\mathrm{id}$ est which comes immediately after marcomanmi.
(2) the Greek alphabet, this time including the numerical symbols omitted on fol. $\mathbf{r}$; same ornamentation and same arrangement as for the Hebrew alphabet; the inscription reads : Literę grece / numervm / demonstran/tes.
(3) the Greek numerals from Mia to Mire. Mia CHile correspond to the letters $A-\gamma$ of the alphabet.
(4) Numeri / cardinales: Vnus - Mille.
(5) Ordinales : Primus - Millesimus.
(6) Aduerbiales : Semel - Milies.
(7) Disperti/ui : Singuli - Milleni.
(8) (no inscription) Singularis - Millenarius.

The Latin material in (4) - (8) does not correspond to the Greek numerals in (3); in the former the numerals ' 11 '- ' 19 ' are included, whilst they are not given in the latter. In (3) Nia Deca Ecusi Trinta and Tesserenta (9, 10, 20, 30, 40) are written on an erasure.
Fol. $2^{v}$ is also divided into columns, but only the first three are filled, and these only partly :
(1) Ponderales : Simplum - Sedecuplum.
(2) Complicatiui : Simplex - Sedecuplex.
(3) Aduerbia ex his : Simpliciter - Tredecupliter. The rest of the page is blank.
The order of the De inventione litterarum elements has been completely upset : [Greek] - Runes - Aethicus - Hebrew - Greek, whilst the Latin alphabet has simply been dropped. As far as the runes and Aethicus's alphabet were concerned, the compiler had no improved versions which he could substitute for those in the De inventione collection; but he had a wider and better knowledge of Hebrew and especially of Greek. It is somewhat striking that the scribe bestowed more care upon the traditional De inventione Hebrew and Greek than upon the new, more scientific material. But the arrangement of fol. $2^{\text {r }}$ lent 316
itself better to an artistic treatment than that on fol. $I^{\mathbf{v}}$; moreover, the scribe and the compiler need not have been one person.
Although both the text and most of the alphabets are obviously derived from $D e$ inventione litterarum, close inspection detects a. number of mistakes not found in other versions. Some of these, especially in Aethicus's alphabet, point to a prototype using open $a$ : chata (for ${ }^{*}$ chatu), effosta (*effostu), perhaps also delfa (for delfoi ?). This also explains the rune-name laga (for lagu). Perhaps this prototype had insular features, as this would account for a mistaken chopiceph (elsewhere chori-) (1). But in view of the forms betraying a transmission through many stages (gagifod phiorin agathin coim), it will perhaps be safe not to press this point (2).
The runes are neatly drawn, but some show rather decadent forms. At first the scribe had skipped the symbol for $q$, but afterwards he inserted it in the right place.

> 1o. Vatican Library, MS. Urbinas lat. 290 (saec. XI in.).

This manuscript has been described in Chapter II, where I also examined its background. Its isruna fuporc is preceded by a runic alphabet, which is derived from a De inventione collection, but the introductory text to the alphabet is unparalleled: Literas sequentes / cum minio colore nota/te ( 1 ) nordmanni in suis usitant (2) / carminibus \& uocantur apud eos/runç. Sunt autem nonnulli qui opi/nantur quod quando gothi $\& /$ uuandali gentes de finibus/nordmannorum egredientes / per germaniam $\&$ italiam ad / mare uenientes perque illvd / transuecti in affrica consiste/ bant; crescente apud eos christi/ana religione christiani ex parte / effecti (3); doctores corum tam nouum / quam uetus testamentum in suam / linguam hoc (4) in theotis-
(1) Cf. also the abbreviation 7 for $e t$ in the inscription of the second Hebrew alphabet (fol. $2^{r}$ )
(z) Heidelberg MS. Salem 9.39, with typical insular features, gives a name garfod for the $g$ in Aethicus's alphabet; this garfod reminds one immediately of gagifod in the Vatican manuscript.
cam (5) uel / in theotonicam conuerterunt / cum istis litteRiS.
(1) notate] for notatas
(2) the scribe first wrote uo (cf. following uocantur), then erased $o$ and put $s$ instead.
(3) some verbal form like sunt is apparently missing.
(4) in this explanatory subclause we expect est;perhaps the exemplar had i. (=id est), which was skipped for following i $(=i n)$.
(5) corrected from theoiotiscam (dots above and below the first $i$ and the second $o$ ).
Several elements have been mixed up in this text :
(a) The emigration of the Goths from Scandinavia and their settlement in Italy.
(b) The migration of the Vandals through Germany and their settlement in North Africa. They made raids on Italy from their African homes, but did not march through it on their way south (which led through Spain).
(c) The conversion of the Goths, and the translation of the Bible into their language.
(d) The compiler may have had some vague notion of the Gothic alphabet, but he identified it with the runes.
Gothic was not altogether unknown in Germany about the time our manuscript was compiled : there were the gothica in Vienna MS. 795, obviously based on a Gothic Bible, and the latter was perhaps available in more than one copy : the Codex Argenteus makes its first appearance in Werden, the Codex Carolinus in Weissenburg (1). The compiler may have had his
() W. Straitraka, Die gotische Bibel I, xxiv f. See especially the extract from Walahfrid Strabo, and cf. also

Qui primus litteras Guticas inuenit? Goulphyla, Gothorum episcopus. Fuit autern da principium mundi usque quod Langobard in Italia praesiderunt V milia DCCLXX et II anni, tempore Justiniano 12 f.): Alii ve
gentium est, exordium habuisse, de qua Gothi et caeterae vationa
information on the history of the Goths from various sources; that of the Vandals would be harder to trace; but I know of no one source where the two are combined as in the Vatican text.

The equation theotiscam vel theotonicam is of special importance: we find the formula teutonica vel theodisca lingua (and similar ones) from about 880 on; the examples have their origin in Mainz, Fulda and St. Gall (1). In the case of the Vatican manuscript this may be an additional indication that its material came (directly or indirectly) from St. Gall (cf. the isruna tradition).

The runic alphabet has suffered less damage than the fuporc; yet a number of items must be examined in detail, as quite a few readings are doubtful $[\mathrm{M}=$ Massmann (2)].
$a$ : of the name only as (with accent on the $s$ ) is clearly visible, but there is little doubt that $c$ followed.
$d$ : the rune shows an almost perfect form ( M has a form practically identical with the OE. m ).
$f$ : the reading of the rune-name is doubtful; at any rate fech is more probable than M's feh.
$g:$ M's $g u b u$ is based on a misinterpretation of the lower loop of $g$; gibu is far more likely.
$k$ : the name is clearly $k o l$; no letter seems to be missing after $l$.
$q$ : there can be no doubt about the reading chon.
$r$ : the name is partly hidden by a blot; only reh, and one more letter which cannot be identified for sure ( $t$ ? $i$ ?), remain visible.
$s:$ the last two letters of the name are faint, but probably il.
Theotiscae exierunt (from Frechulf of Lisieux, see W. Krause, Die Hrabanische Rurenveike, 178)
and
Golphilas Gothorum episcopus adinvenit Gothicas litteras et quarnvis esset Arianus utile tamen opus fecit, quia per illas litteras transtulit divinas litteras in Gothicam linguam. Fuit tempore Valentis imperatoris (Sigebert of Gembloux, De viris illustribus, cf. M. Manitrus, Geschichte III, 348).
(1) L. Wriscerrase, Die geschichtliche Kraft der deutschen Sprache. Düsseldorf, 1950, 48.
(z) H. F. Massmann, Runen, 253 ff.
$x$ : M read beluch, or, alternatively, beluth; as a matter of fact the first letter could just as well be $h$, which would give us a normal form heluch.
$y$ : $M$ was right in reading horsi; the third letter looks like $y$ because it seems to form a unit with the accent on $i$ in the following name, zia.
$z$ : there can be no doubt about the reading of the runename : zia.

As to the forms of the runes, their peculiarities are rendered in fig. 50 as far as they can be made out in the manuscript. All in all the runic alphabet shows a fairly independent tradition : its $d$-rune preserves an astonishingly correct form; for $h$ it has hagal as opposed to hagale, hagalc, etc. in most other versions, for $i$ is, fór $k k o l$, for $n$ nod. (elsewhere not, once noth). Not all these forms point necessarily to a better exemplar : hagal, is and nod occurred in the isruna fuporc, and may have ousted the forms in the alphabet. Two forms may point to a prototype still using open $a$ : heluch (the other versions have $a$ in the second syllable) and zia (elsewhere ziu).
11. Karlsruhe, Badische Landesbibliothek, MS. Augiensis 254 (saec. VIII/IX-IX) (1).

In this manuscript the runes are obviously a later addition. They may well have been written at Reichenau, as the manuscript appears to be mentioned in an early catalogue (before 838 ) of the library of that Abbey (2). Judging from the handwriting only we may place the runic alphabet-for this is all the manuscript offers-at a fairly early date : probably the second half of the ninth century, but certainly not later. The runes of this manuscript were first edited by T. Längin (3).
The codex is bound in leather-covered wooden boards; two leather clasps with metal mountings. It bears the inscription: Exposicio Gregory pape in tor / ewangelia / Ysidorus de officys / Collectarium de diversis sentencys
(1) A. Holder, Die Reichenauer Handschriften 1, 573 ff.;
H. Berson, Isidorstudien, 50
(2) P. Lehmann et al., Bibliothekskataloge I, 252.
(3) T. Lingin, Altalemannische Sprachquellen, 700.

Aug(ustin)i Ieronimi Gregorij et cetera. On fol. x the owner mark : liber Augie maioris. The manuscript consists of three parts
$\mathrm{A}=$ fols. 1-71; $\mathrm{B}=$ fols. 72-152; $\mathrm{C}=$ fols. 153-213
Holder dates A saec. IX, B and C saec. VIII/IX. The 6I folios of C form 8 gatherings marked 'qI', 'II',' $q$ III', 一,' $v$ ', ' VI', 'VII', -; the number of single leaves is extraordinarily great :

II $(+3)[153-159]+\mathrm{III}(+2)[160-167]+\mathrm{III}(+2)[\times 68-175]+$ $\mathrm{III}(+2)[176-183]+\mathrm{III}(+2)[184-191]+\mathrm{III}(+2)[192-199]+$ III $(+2)[200-207]+$ I $(+4)[208-213]$.
Format $187 \times 121 \mathrm{~mm}$, written area ca. $120 \times 90 \mathrm{~mm}$; one column, except on fol. $212^{2}$ (three), $213^{x}$ (four), $213^{\text {v }}$ (two); 19-20 lines to the page, but 28-30 on fol. $212^{\gamma}$ and $33-35$ on $213^{r}$.

## Contents ( I ):

fol. $\mathbf{I}^{\mathrm{r}}$ : Annales Augienses brevissimi (pasteriores).
IV: Gregorius Magnus, Expositio Ev engeliorum

$153^{\mathrm{r}}$ : Incipit collectario de diuersis sententiis $=$ a collection of homilies, dius, Revelationes.
$21^{1}$ : A nunic alphabet.
$2 \mathbf{1 I}^{1}$ : Incipit orolegium dierum.
$213^{v}$ : Hebrew-Greek-Latin glosses: Hel Ebreum, theus Grecum, dominus Latinum.
The runic alphabet is written on fol. $211^{r}$ immediately after the final sentence of the preceding text (Beati qui parati / sunt in illa hora quando hoc fiunt / Eritque sanctorum \& regnabunt cum Christo in saecula saeculorum amen). Längin found a resemblance between the handwriting of the rune-names and that of the first entries in the Liber confraternitatum. The alphabet looks somewhat like a hasty scribble: the sizes of the runes differ greatly, the rune for $x$ being almost three times as high as that for $a$. Although some forms seem to be rather clumsy imitations, the runes have on the whole a fairly genuine appearance.
The alphabet is written over two lines, $a-n / o-z$; the values are written to the left of the runes, the names above them. Längin's rendering does not always agree with the photograph at my disposal; in the case of $e$, however, which often looks practically like $c$, I have accepted his interpretation, as only autopsy of the manuscript can be conclusive :
(1) A. Holobr, Die Reichenaver Handschniften I, 573 ff
$a$ : the rune is less like R than Längin's facsimile implies.
$c$ : Längin's reading cheri is right; *chen is clearly impossible (although cheri of course goes back to such a form).
$d$ : throm (with suprascript $h$ ) could perhaps also be read throni, but the former reading is the more probable.
$h$ : the name looks rather like hagalc.
$k$ : here too I would rather read gilc than gile.
0 : Längin's facsimile has a more decadent form of $o$ than the manuscript itself; in the latter the right hand strokes do not meet.
$r$ : The scribe might seem to have written rchit rather than rehit.
$y$ : Langin's reading hurry can hardly be justified. The third letter is precisely the same dotted $y$ as that to the left of the rune. It is hard to decide what letters come after huyr-: either a ligature $s+t$, or $y$ followed by a vertical stroke. A form huyry is the most likely in view of the occurrence of such forms as huyri (Vienna MS. 1761, Heidelberg MS. Salem 9.39) and huiry (Karlsruhe MS. Aug. 176).
The two Reichenau alphabets are good evidence for the knowledge of runes (of a rather heterogenous and artificial type, to be sure) in that Abbey. They also show that this knowledge cannot have been very thorough, as even a fairly early version such as that in MS. 254 has already forms of very doubtful quality.
We can of course not know for sure whether the Reichenau alphabets (and that in Vatican MS. Urbin. 290, for that matter) are extracts from a complete De inventione treatise, or whether they go back directly to the alphabet that was incorporated into that treatise; but there are two considerations that allow us to favour the former alternative: there are certain peculiarities in the Reichenau alphabets which also turn up in regular De inventione alphabets, and which can hardly go back to the first version of the alphabet; and, second, the De inventione alphabet is probably a construction especially made for that
treatise; there is no indication that it existed independently before the treatise was written.

## 12. Karlsruhe, Badische Landesbibliothek, MS. Augiensis 176 (saec. IX ${ }^{\mathbf{1}}-\mathrm{X}^{\mathbf{1}}$ ).

The runes in this manuscript were also first edited by T. Längin (1); they seem to have received as little attention from runologists as those of the preceding codex.
According to B. Bischoff (2) the manuscript was written in Freising at the time of Bishop Hitto ( $812-835$ ). The Reichenau library catalogue of $821 / 822$ mentions "in epistolas Ioannis evangelistae homiliae $X$ in codice $I$ " (3), but to connect this entry with our manuscript causes some difficulty : palaeographical considerations are in favour of dating the codex in the latter part of Hitto's rule (4). It is not known when or where the runes were inserted : judging from the handwriting, they may be dated saec. $\mathrm{X}^{1}$. Whether at that time the manuscript was already in Reichenau, we cannot know for sure (5). Fol. $3^{\text {r }}$ : liber Augie maioris.
Leather-covered wooden boards with two leather clasps and the inscription: Epistola Iohannis appostoli / Tractatus X super certis / verbis eiusdem epistole / Epancti Augustini. The parchment has suffered much from moisture, and is
salt often crumpled. The 123 folios are bound to form fifteen gatherings : fols. $\mathrm{x}-8=$ one quaternion, with fols. $4-5$ originally $5-4 ; 9-112=$ thirteen quaternions; $113-123=$ one sexternion, the first folio of which is missing.
Format : $270 \times 167 \mathrm{~mm}$, written area $195 / 200 \times 115 / 120 \mathrm{~mm}$; : column, 22 lines to the page.
Contents (6) :
fol. $\quad \mathbf{2}^{\mathbf{r}}$ A riddle in runic script, a runic alphabet, and various scribbles and additions (cf. infra).
$2^{2}$ Incipit epistola beati Johanis apostoli ( $=$ John I).
$9^{7}$ Augustine, In epistolam Yohannis ad Parthos tractatus decem.
$123^{\text {r }}$ Probationes pennae.
(1) T. Lingin, Altalemannische Sprachquellen, 7or.
(1) T. Lingin, Altalemannische Sprach.
(2) B. Bischoff, Schreibschulen I, 113 .
(2) B. Bischoff, Schreibschulen I, 113 .
(3) P. Lehmann et al., Bibliothekskatal
3) P. Lbhmann et al., Bibliothehskataloge 1, 245, 15
(4) B. Bischorf, Schreibschulen I, i13.
(5) A Reichenau library catalogue of sae
(5) A Reichenau library catalogue of saec. IX ${ }^{2}$ also mentions " In epistolas but this entry is still less conclusive.
(6) A. Holder, Die Reichenawer Handschniften I, 412 f.

In the left top corner of fol. $2^{r}$ the press-mark CLXXVI (in pencil), in the middle of the upper margin an a-rune. A large dark stain extends from the right border till about the middle of the page; a clear patch going from line 5 to 10 has practically removed several runes on $11.6,7$ and 8 and part of the alphabet; along the left margin the parchment is much soiled, most of the runes along it are more or less damaged.
Ll. x-8: a runic inscription, obviously based on the alphabet written below it. It is a Latin riddle, which may be transcribed as follows :

NON TIBI SIT NOSTRAS INDIGNUM/ NOSCERE CAUSAS/SEX SUMUS IN LUCEM GENITE / [SI]NE LUCE SORORES / SALTAMUS CANIMUS LUDOS SINE METE ( 1 ) / [M]ONE[MUS] / HOC [NOBIS] MORS POSSE DEDIT QUOD / UITA [NEG]AUIT.
The lines of the poem are marked off by sets of three dots (11. $2,4,6,8$ ), 11. 4 and 8 also by a foliate ornament. The word divisions are indicated by dots, but these are not used everywhere, or else have become invisible.
On il. 9-12 follows the runic alphabet, with above each rune its name ( 9 , 11 : names; 10, 12 : runes), below each its value. After the last rune there is a foliate ornament similar to those on Il. 4 and 8, but apparently by another hand, which may also have scribbled a few letters more to the right. A later hand wrote AB and the runes $c-g$ on 1 . 19; these are followed by some scribbles now practically illegible; 1. I4 martinus m. orsicmus in $m c$ in a big clumsy hand; 1.17 letge (contemporary with the runes ?).
In the lower margin a hand not much later than that of the runes wrote a variant riddle (now much faded) :

Sex sumus quę ludimus, quę numquam lucem uidimus;
Nunc mortui agimus, quod uiui non potuimus.
The solution of the two riddles seems to be 'the six strings of a musical instrument' (2).

## (1) Read: ME[N]TE.

(2) F. Mons, Anzeiger für Kunde der teutschen Vorzeit 7 (2838), col. 39 n. 39 "Die sechs Saiten einer Cither".

The runes now missing in the alphabet ( $b c d e$ ) can fortunately be supplied from the text of the riddle, but several of the rune-names remain doubtful or are even completely illegible. Some of the runes have a peculiar form :
$a$ : the original $\boldsymbol{x}$ has been interpreted as consisting of two V's placed upside down and more or less carefully connected. In one case (the second $a$ of causas in 1. 2) the upper $\Lambda$ happened to be drawn straight above the lower one, the result being rather like ce.
$d$ : this rune is not visible in the alphabet, but in the riddle it looks rather like a $\mathbf{b}$ turned to the left. A $d$ derived from $\mathbf{p}$ would be unique in the $D e$ inventione tradition, which has only the name thorn, but not the rune itself. Since the 'loop' is a nartow and rather long triangle, this sign may rather be explained as a $d$-rune from which the left half was lost. Perhaps the rune had been damaged in the exemplar (cf. Vienna MS. 1761, p. 268), and the copyist could make out only part of it.
l: the lateral stroke is sometimes placed so low, that this rune almost coincides with the $u$-rune (cf. infra).
$m$ : there is a rather important difference between the form of the rune in the alphabet and that in the riddle; the former agrees with the other versions of the alphabet, the latter is much more like an English d. From this we may perhaps infer that the runic material was written by two hands : $\mathrm{A}=$ the riddle, $\mathrm{B}=$ the alphabet. Actually the ductus of the runes in the riddle is firmer than that in the alphabet; the forms of the $e$ - and $g$-runes also show minor differences. But at the same time there cannot be the slightest doubt that the riddle and the alphabet are based - on the same prototype : there is no other way to explain the peculiar $d$-rune occurring in both.
$n:$, is shaped rather like X , but with the end of the lower left stroke turned vertically down.
$o$ : the lower lateral stroke has grown into a regular $\mathbf{x}$.
$u$ : the right hand part of this rune has been reduced to a. short stroke slanting down to the right; the whole looks
rather like an English c-rune, but the lateral stroke sets off at various heights
The names of $c$ and $d$ have completely disappeared; those of $m$ and $r$ are partly illegible. That of $m$ is partly obscured by the dark stain, so that only the final $\boldsymbol{n}$ is clearly visible; that of $\boldsymbol{r}$ may be read reht or rehit, but there is hardly enough space for $i$ between $h$ and $t$. In the margin to the left of this name there is a letter which may be R. In some cases the scribe seems to have had some trouble to get the right name above the right rune : the name of the $i$-rune is written below the line, as the scribe found no space on the line itself between hagale and gilch; at the end the $z$-rune stands below the name of the $y$-rune, whilst its own name stands above the foliate ornament. The scribe probably first drew the runes, after which he found out that he had calculated too little space for the names. A couple of corrections seem to be due to the scribe himself. Above the $o$ there is an erasure, and the name othil is written somewhat higher. In the name huiry the $i$ has been underdotted, and above it $y$ or $r$ was added, thus giving the reading huyry or hurry (the latter being less likely).

## 13. Bamberg, Staatliche Bibliothek, MS. Msc. patr. I30/2 (saec. XIII in.) ( I ).

The alphabetic material of this manuscript seems never to have been examined. It is a much revised edition of the original collection : the Latin alphabet and that of Aethicus Ister have been dropped; at the end a Slav alphabet has been added; the runic alphabet has received the epithet 'Chaldaean '. The introductory texts have practically disappeared; yet we shall see there can be no doubt that this collection belongs to the De inventione group.
The Bamberg manuscript is the second part of a two-volume collection of the works of Richard of St. Victor, to which other texts have been added. At one time it belonged to Michelsberg Monastery near Bamberg (e. g. fol.
(I) Katalog der Handschriften der koniglichen Bibliothek 2u Bamberg. Bearbeitet von F. Lerrscruy. I. Band, Erste Abteilung, III. Lieferung : Kirchen beitet von F. Lerrschur. I. Band, Erste Abteilung, III.
vilter und altere Theologen (Bamberg, i895 ff.), 514 ff .
$104^{\mathrm{v}}$ : Liber S. Michahelis in Monte Babenbergensi). On fol. $\mathbf{I}^{\mathrm{r}}$ is the old press-mark M. 2; the codex also has the no. B-IV-29.
Binding : wooden boards covered with pigskin; there were three clasps, which are now missing. The codex consists of 165 folios and two fly-leaves, arranged as follows :

1,2 +8 IV [3-66] + III [67-72] +4 IV [73-104] +7 IV [105-160] $+11(+1)$ [16x-165].
With fol. XXI' ' SXVLII '' bered 'XXI' - 'XXVIII'; in the part beginning with fol. yos the quires hand.
Contents:
ol. 15: Epistola B. Gregorii ad Secundininum episcopum, etc.
$3^{\text {r }}$ : the last chapter of Richard's De interiore hominis statu (continuing fol. $158^{v}$ of MS. $130 / 1$ ).
$3^{v}$ : Capitula, $4^{v}$ the text of Richard's De somnio Nabuchodonosor
$3^{\vee}$ : Capitula, $4^{*}$ the text of Richard's De somnio Nabuchod
$73^{*}:$ Richard of St. Victor, Tractatus super quosdam psalmos.
$73^{2}:$ Richard of St. Victor,
$98^{8}:$ Mystical interpretations.
104 ${ }^{\mathrm{V}}-105^{\mathrm{r}}$ : Alphabets, etc. (cf. infra).
ro5': S. Augustinus, De haeresibus liber.
$121^{v}$ : S. Augustinus, De ecclesiasticis dogmatibus liber.
126": Gandulphus, Flores sententiarum.
$142^{\text {r }}$ : Hildebertus Cenomanensis, Versus de Sacramento. De pontificibus Romanis.
$44^{\text { }}$ : Haymarus monachus ( ?), Rhythmus de expeditione Hierosolymitana. r54ㄹ: S. Mathiae apost. Acta; Inventio et Miracula.
The alphabets have been written on two pages which remained blank when the two parts of this codex ( $1-104$ and 105-165) were bound together. They are written with the same care as the rest of the manuscript, even though the scribe does not seem to have found the right arrangement from the very beginning :
fol. $104^{\mathrm{va}}$ : a Hebrew alphabet, inscribed "Hebraicum Alfabetum" and offering (in vertical columns from left to right) : the values of most letters, the letters themselves, their names (aleph-taph), and interpretations of the latter (aleph = Doctrina, etc.).
$104^{\mathrm{vb}}$ : at the top the scribe first wrote "Alfabetum Grecum " which he then corrected to " GRECVM Alfabetum", " GREGUS Numervs", " Latinus Numerus". Below these inscriptions we find in vertical columns from left to right ; the values of the Greek letters, these letters themselves, their
names, the corresponding Greek numerals (Mia, Dia, etc.), and their values expressed in Roman figures. At first the "Numerus GRECUS" section had been written across the whole width of the page below the alphabets. It was then erased and replaced by the higher Greek numerals. and their Roman equivalents. A reference mark at the end of the last vertical column $(+)$ is repeated at the head of this list of Greek numerals.
$105^{\mathrm{ra}}$ : a runic alphabet, with the inscription "Alfabetum chaldaicum" : values, runes and names arranged as before.
ros'rb : an "Alphabetum Ruthenicum ", i. e. a Cyrillic alphabet giving also the Latin equivalents and the names of the letters ( r ).
The runic alphabet has been corrected in two places : the name of the $d$-rune has been altered from thron to dhron; the first two letters of the name of the $k$-rune (kilc) are written over an erasure, but it is not clear what letters the scribe first wrote. Perhaps he began to write the name of the next rune (laga), and after the first $a$ he became aware of his mistake (2). On the other hand the values of the runes for $u, x$ and $y$ are missing, and to the right of the $u$-rune the name also. The latter, however, has been merged with the name of the $t$-rune, resulting in tachur. The Bamberg alphabet must consequently have been copied (directly or indirectly) from an exemplar where the material was arranged in horizontal lines instead of vertical columns. The scribe obviously proceeded with great care. He must have realized the importance of the acrostic principle and therefore corrected thron to dhron; similarly the name of the $i$-rune is is (in the other versions usually his). This may also explain why he gave no values to the runes for $u, x$ and $y$ :
(1) Almost identical with that given by D. Diringer, The Alphabet, 476 f. (i) Almberg alphabet seems not to have been noticed by Miss A. Bervind Das Stockholmer Abecedarium (Spraikvetenskapliga Sollskapets i Uppsala forthandlingar 1940-1942 = Uppsala Universitets Arsskrift 1942: 9 , 115-148). (2) Or did his exemplar have a name for $k$ with a different initial? Cf. the forms with initial $g$ - in a number of manuscripts.
he found them not to agree with the names of these runes (helach, $h u$; that of $u$ he could not separate from the name of the $t$-rune) and therefore preferred not to write them. He acted in the same way with the Hebrew alphabet, writing only the values he felt sure were right.
Considering the late date of the manuscript, the runes are remarkably well made. In the rune-names there is of course an amount of misunderstanding (aso, kile, othel, zin), but a form laga may point to an exemplar using open a. At any rate the evidence provided by the Bamberg manuscript is of greater value than its date might imply.

Finally, there is the name "Chaldaicum alphabetum" under which the runes are found. This reminds us immediately of Munich MS. 14436 : there runes were found under the headings 'Syriac', 'Arabic' and 'Alanic', and in their immediate neighbourhood we also met a 'Chaldaean' alphabet. The Bamberg manuscript must then go back to a De inventione version to which a Chaldaean alphabet had been added.
14. Paris, Bibliotheque Nationale, MS. lat. 5239 (saec. X med.)

The runes in this manuscript were discovered by Graff and communicated by him to W. Grimm, who first edited them ( x ). Since no full description of this codex seems to have been printed 1 have included a number of details which may help to define its relationship with Strasbourg MS. 326 (2).
(1) W. Gumm, Zur Litteratur der Runen, 22 ff. $=$ Kl. Schriften III, 108 f . Cf. I. O. Plassmann-W. Krausk, Die Hrabanische Runemreihe, esp. 173 f . and fig. 4; and also:
G. STRPHENS, Monuments I, 111 , no. 44.
(2) On this manuscript see int. al.:
(z) On this manuscript see int. al.:
C. W. Jones, Bedae Opera de Temporibus, 155, 166, 168, 171, 368.
C. W. Jones, Bedae Pseudepigrapha, 31, 35, etc.; 128.
A. VAN DR Vijver, les ceuvres inédites d'Abbon de Fleary, x 51 and note 7 . Id., Les plus anciennes Traductions latines médiéuales ( $\mathrm{X}^{\mathrm{a}}$-XI ${ }^{\text {a }}$ siecles) de Traites d'Astronomie et d'Astrologic. Osiris 1, (1936), 672 ff.
H. P. Lafrin, The Eleventh Century MS Munich 14436. Isis 38 (1947/48), 217, note 91.

Modern red leather binding; on the back : DIONYSII/EXIGUI/CYCLUS PASCHALIS / ETC., and LAT. 5239. Old ownerg' and press fol. $2^{r}$ : Cod. Colb. rozo and Regius $3^{823} / 4$. Parchment of good quality, almost white, well preserved except the first and the last folio, formerly pasted onto the binding. The codex consists of 239 folios and three fly-leaves $=$ fols. $*_{1}$ - ${ }_{3}$ ( 1 paper, 2 parchment fly-leaves) blank except $*_{3}{ }^{*}$ (in a modern hand) "Codex scriptus spculo XI, exeunte aut ineunte XII". The 32 quires are numbered [I], II - XXXII (q II, q III, q IIII, the rest in plain figures) on the last page, and by a later hand [a], b-z, - , et, ae, aj -gj on the first page of each quire. The composition is as follows :

I $(+1)[x-3]+2$ IV $[4-19]+$ II [20-23] +14 IV [24-135] + IV
$(+1)[136-144]+6$ IV $[145-192]+$ III $(+1)[193-199]+$ IV $[200$ 207] + III $(+1)[208-214]+2$ IV $[215-230]+$ II $\left(+^{*} \mathbf{1}\right)[231-235]$

+ II $[236-239]$. +11 [236-239].
Fols. $\mathrm{I}^{\mathrm{r}}$ and $239^{2}$ were formerly pasted onto the binding.
Format ca. $322 \times 235 \mathrm{~mm}$; written area ca. $226 \times 163 \mathrm{~mm} ; 30 \mathrm{ll}$. to the page. Written by several hands, which change frequently and some of which are decidedly more archaic (e. g. using open $a ; r a$, rect, rf ligatures, etc.) than others, although the manuscript seems to have been compiled at once; ccasional traces of insular influence.
The catalogue of 1744 dates this manuscript in the tenth century; analistic
notes (e. g. fol. $17^{v}, 21^{v}$ ) show that it must her notes (e. g. fol. $17^{\gamma}, 21^{r}$ ) show that it must have been written shortly after 950, nd probably in the Abbey of Saint-Martial at Limoges (1) (cf. Strasbourg MS. 326).
The list of the contents is more variegated than the catalogue of 1744 suggests (2)
fol. 1r Fragments on winds, climates, weather; Greek - Latin glosses; dies aegyptiaci; instructions for bloodletting
$3^{\text {r }}$ (later hand) obits; gifts to Saint-Martial.
$4^{4}$ INCIPIT LIBER DIONYSII EXIGUI (De ratione paschalis). ENNEA CAI DECA DERICA VOCANT QUEM GRECI ENNEA CAI DECA DERICA VOCANT
$20^{*}$ Annals for 830-930, continued by later hands 1025-1520; $21^{*}$ blank DE DIFFERENTIA COMETARUM; 22v, 23 blank (partly lined for tables).
${ }^{242^{x}}$ INCIPIT LIBER DE TEMPORIBUS (Bede); $39^{\text {v }}$ blank $40^{\circ}$ praefatio bedae presbiteri in librum de tem PORIBUS (Bede, De temponam ratione).
96 RATIO CALCULANDI, PRIMO DE DIEBUS MENSIUM, and other computistical and astronomical items.
16* INCIPIT PRAEFATIO BEDAE PRESBITERI (Bede, Epsstola ad Wictheda de paschae celebratione).
(1) L'art roman d Saint-Martial de Limoges. Les manuscrits d peintures, etc. Catalogue de l'exposition 17 juin - 17 septembre 1950. Limoges, 1950,58 . (2) Catalogus codicum manuscriptorum Bibliothecx Regiz. Pars Tertia. Tomus Quartus. Parisiis, MDCCXLIV, 59.
$19^{*}$ INCIPIT PROLOGUS PASCHALIS QUEM BEATUS FECIT HIERONI/MUS. $126^{\circ}$ blank.
${ }^{126^{v}}$ Computistical tables; $129^{r}$ Calendar; $135^{r}$ Computistical tables
$13^{8^{v}}$ DE NOMINIBUS VENTORUM; VERRSUS DE VENTORUM NOMINIBUS AC SPERIS SUBPOSITIS; rotae with winds, lunar phases, tides; astronomical items; rotae with four elements, four humours, etc.; orologium viatorum.
$145^{\circ}$ DE TEMPORIBUS ISIDORI (Etymologiae V, xxviii f.)
$151^{7}$ ITEM ISYDORI. I. De astronomie nomine, etc. (Etym. III xxiv ff.)
158² ITEM ISYDORI, I. De mundo, etc. (Etym. XIII, i ff.)
$16^{2}$ Dies aegyptiaci; instructions for letting blood (cf. fol. ${ }^{2}$, 238)
$163^{\text {² }}$ Heredis nomen imposuit census heris (Isidore, Etym. IX, v f.) ${ }_{166^{v}}{ }^{\circ}$ PETOSIRIS NECHEPSO REGI SALUTEM.
${ }^{166^{V}} 7^{\circ}$ PETESIRE LITTERE CUM NUMERIS SUIS; rota ( 1 ); $167^{*}$, 168 blank.
$169^{r}$ Bede, Chronicon sive de sex huius saeculi aetatibus (no title).
193 ${ }^{*}$ ADBREVIATIO CHRONICAE
106² ARGUMENTUM AD ANNUM MUNDI INVENIENDUM INCIPIT COMPUTACIO CIRCULI MAGNI PASCHE (532 years' cycle).
CURSUS L
years cycle).
CURSUS LUNARIS de diebus SINGULIS PER XVIIII ANNOS, with tables.
$204^{*}$ CURSUS LUNAE UNICUIQUE PER / DECEM ET NOVEM ANNOS, and other computistical and astronomical items and tables.
$212^{\text {F }}$ VERSUS DE SINGULIS MENSIBUS, VERSUS DE DUODECIM SIGNIS, etc. $214^{*}$ blank.
$215^{\mathrm{r}}$ The signs of the zodiac, with explanations.
$225^{V}$ Aratus's prognostics, with comment.
$231^{v}$ (later hands) Deeds to Saint-Martial; 232v $233^{\mathrm{r}}$ blank
$233^{v}$ ARGUMENTUM QUOTA SIT LUNA PER DECEM ET NOVEM ANNOS, table ( $=$ fol. $137^{v}$ ), and other computistical iters.
$235^{5} \mathrm{De}$ inventione litterarum (no title); $\mathbf{2 3 6}^{60}$ (later) [V]ETERIS QUESTIONIS NOVA SOLUTIO; $237^{\text {r blank; }} 237^{\text { }}$ Deed (later) $23^{8^{v}}$ Dies aegyptiaci $\left(=\right.$ fols. $\left.2^{v}, 162^{v}\right)$; [H]eredis nomen, etc. $=163^{\text {r }}$ The fact that some texts are repeated twice or three times shows that planning was not perfect in the scriptorium where this codex originated; so do the many blank pages (some of which were used at later dates).

Fol. $235^{\mathrm{r}} \mathrm{ff}$. show the following arrangement
$235^{\text {r }}$, 11. 1-9 : the text on the Hebrew alphabet, followed by that alphabet ( $10-12$; letters, values and names); 13 blank; 14-19 the text on the Greek alphabet, followed by that
(1) With Greek inscriptions YחIEPIEIA, ZISH MIKPA, ZOH MEГAAH, etc. $=$ Oxford MS. St. John's College 17, fol. 8 .
alphabet ( $20-26$; letters, names and numerical values in Roman figures); 27-30 blank.
$235^{\text {v }}$, 11. 1-5 : the text on the Latin alphabet, followed by that alphabet ( $6-9$; letters and peculiar numerical values) 10-14 the text on Aethicus Ister's alphabet, followed by that alphabet ( $15-20$; letters and names); 2 r blank; 22-26 the text on the runes; 27-30 blank.
$23^{6}$, 11. r-3 : the runic alphabet (cf. infra); 4 ff. Roman figures and Greek numerals (I Mia - $\overline{\mathrm{M}} \overline{\mathrm{M}}$ Ecathostochyle)
The treatise is carefully written in a clear though somewhat unequal hand. It has close $a$ but open $g$ and long $i$; uncial $d$ only in the letter-names delta, delfoi and in numerals. The runic alphabet fills the first three lines of fol. $236^{\mathrm{r}}$ in such a way, that the runes for $a-n$ are on 1.2, and $o-z$ on 1. 3; the names of the first thirteen runes are written above the corresponding runes on the first line; those of the remaining runes had to be inserted interlinearly as space permitted. For further details see the discussion of the next manuscript.
15. Strasbourg, Bibliothèque Nationale et Universitaire, MS. 326 (Latin 275) (saec. X).

The runes of this manuscript do not seem to have been edited thus far. My attention was drawn to them by the description in the Catalogue général (1)

It is not known how and when this manuscript came into the possession of the Bibliothèque Nationale et Universitaire (formerly : Universitaire et Régionale). A pencil mark at the end of the volume may indicate that it was acquired through exchange ( $\mathbf{T} 227 ; \mathbf{T}=$ Tausch ?)
Modern leather binding (nineteenth century), without inscription. Parchment of good quality, which has suffered somewhat from moisture at th beginning and the end of the volume. The codex consists of 201 folios arranged as follows :
(I) Catalogue general ... Vol. XLVII. Manuscrits de la bibliotheque universitaire et refgionale de Strasbourg, 139-143.
C. W. Joniss, Bedae Opera de Temporibus, 112, 161, 167, 171 .
C. W. Jonss, Bedae Pseudepigrapha, 3i, 51, 93, 133.
${ }_{13}$ IV $[1-104]+\mathrm{III}(+1)[105-111]+7$ IV $[112-167]+3[168-170]$
$+\mathrm{I}[17 \mathrm{I}, 172]+\mathrm{IV}[173$-180] $+\mathrm{I}[18 \mathrm{I}]+2 \mathrm{IV}[\mathbf{1 8 2}$-197] +4 [198-20r].
The only old quire mark is ' XXII' on fol. 167, which is either a mistake for ' XXI' or an indication of a quire being lost; the text ends incomplete on fol. $167^{\prime} ; 167^{\prime}$ is blank. Either a quire is lost here too, or else that text was never completed. Fol. 181 is a smaller and thinner leaf. There is a later (seventeenth century?) quire numbering E I - E 34 .
Format : ca. $320 \times 255 \mathrm{~mm}$; written area ca. $215 / 235 \times 170 \mathrm{~mm}$; ruled for $31-33$ lines till fol. 167; fols. 168 -201 have 44 lines to the page. The manuscript is written by two hands, the first covering fols. $x-167$, the second, much smaller, fols. 168-201. They may be fairly contemporary. Somewhat M. Porcher, Keeper of Manuscripts in the Bibliotheque Nationale in Paris, M. Porcher, Keeper of Manuscripts in the Bibler in the diocese of Angouleme believes the manges (I). This agrees very well with the close relationship or in that of Limoges (1).
between this codex and Paris MS.
5239 .
The manuscript is certainly made up of two originally independent manu scripts. The text of the first ends on fol. 1677 in the middle of Bede's Epis tola ad Wictheda; $167^{*}$ is blank, and on $168^{\mathrm{x}}$ there begins a different text Cf. also the differences in handwriting and lineation.
The contents of this manuscripts being analysed very fully in the Catalogue genéral, only a summary is given here, arranged so as to simplify compariso with the contents of the Paris manuscript; the corresponding folios of the latter preceded by $P$, are indicated between brackets.
fol. $\quad \mathbf{I}^{r}$ Bede, De natura renum (no title; $\mathbf{P}^{244^{+}}$).
$10^{r}$ INCIPIT LIBER DE TEMPORIBUS (Bede; P $3^{2 r}$ ).
$1^{1}{ }^{r}$ PRAEFATIO BEDAE IN LIBRUM DE TEMPORIBUS (Bede, De temporum ratione; $\mathbf{P} 40^{\circ}$ ).

$104^{\wedge}$ ADBREVIATIO CHRONICAE ( $P$ 193²).
$107^{\circ}$ INCIPIT DE ORTU ET OBITU PATRUM (Isidore)
$109^{\vee}$ De inventione litterarum (no title) ( ${ }^{\mathrm{P}} 235^{r}$ )
$110^{*}$ Bede, De arithmetici
$119^{V}$ DE NOMINIBUS VENTORUM, with figures, and other astronomical items (partly $\mathrm{P}_{13}{ }^{8 \mathrm{~V}}$, partly $\mathrm{P}_{3} 3^{8 \mathrm{r}}$ ). nomical items (partly P 1388, partly $\mathrm{P} 3^{88}$ )
$129^{*}$ GENERA NUMERORUM IN SENSIBUS SECUNDUM AUGUSTINUM, etc.
$0^{*}$ De fusione metallorum.
$131^{*}$ AMBROSII MACROBII THEODOSII DE MENSURA ET MAGNITUDINE TERRAE, etc. (Macrobius, Commentariorum in Somnium Scipionis liber I, xx, 14 ff.).
(1) M. J. Rort, Librarian of the Bibliothèque Nationale et Universitaire, kindly informed me of M. Porcher's finding, and also provided me with a detailed description of the codex.
$133^{7}$ FELICIS CAPELLAE DE MENSURA LUNAE (De nuptis, lib. VIII), etc.
$133^{*}$ Astronomical and computistical items (partly $P$ 96r fif)
$143^{\text {r }}$ INCIPIT PROLOGUS PASCHALIS QUEM BEATUS FECIT HIERONIMUS ( P ¥19 $9^{\circ}$ ).

$159^{\text {r }}$ INCIPIT COMPUTATIO CIRCULI MAGNI ( $P$ 196 ${ }^{r}$ ).
$4^{\circ}$ ITEM DE DIVISIONIBUS TEMPORUM (related to Alcuin's INCIPIT PRAEFATI ac bissexto) ad Wictheda, P $116^{\vee}$ ), incomplete; $167^{\circ}$ blank.
168 Aratus, Prognostica, with commentary. ( $\mathrm{P}_{225}{ }^{\circ}$ )
$17 \mathrm{~K}^{*}$ DE ANNIS DOMINI IN QUIBUS TANTA DUBITACIO EST INTER CALCULATORES.
$173^{\circ}$ Calendar, followed by astronornical tables, int. al. $182^{\circ}$ CURSUS LUNARIS DE DIEBUS SINGULIS PER XVIIII ANNOS ( P 200\%).
${ }^{18} 5^{r}$ Poems on the months, signs of the zodiac, etc. ( ${ }^{2122^{r} \text { ) }}$
$186^{\mathrm{r}}$ De differentiis dierum et noctium per circulum anni
$19 \mathrm{r}^{\mathrm{r}}$ Isidore, Etymologiae V, xxviii f. (no title; P ${ }^{145^{\mathrm{r}} \text { ). }}$
194 ${ }^{\text {T}}$ ITEM ISYDORI. I. De astronomie nomine (Etym. III, xxiv ff.; ITEM Y
97* ITEM YSIDORI. I. De mundo (Etym. XIII, iff; P $15{ }^{8 r}$ )
$199^{\gamma}$ Dies aegyptiaci ( $\mathbf{P}^{v}, 162^{v}, 23^{v}$ ). P $163^{7}, 23^{8} 8^{7}$ ).
The text of De inventione litterarum extends over two pages : fol. 109 ${ }^{\text {v }}$, 11. 1-9: the text on the Hebrew alphabet, followed by that alphabet (ro-13; letters and names); 14-19 the text on the Greek alphabet, followed by that alphabet (20-25; letters, names, and numerical values in Roman figures); $26-30$ the text on the Latin alphabet, with that alphabet (letters and peculiar numerical values) on 1. 31 and in the lower margin.
fol. $110^{r}$, II. $1-5$ : the text on Aethicus Ister's alphabet, followed by that alphabet ( $6-9$; letters and names); 10-13 the text on the runes, followed by a runic alphabet (14-17; runes, values and names); $18-3 \mathrm{x}$ Roman numbers and corresponding Greek numerals, in five vertical columns; I Mia - $\overline{\mathbf{M}} \overline{\mathbf{M}}$ Ecathostochyle (plate VII a).
The alphabets show better planning than in the Paris version,
but the handwriting is rather crowded and somewhat hesitant; it lacks the firmness of the Paris hand. It has no long $i$; mostly close $g$; no uncial $d$ except in the numerals. The runes are distributed over two lines : $a-s / t-z$; their names are written above them, their values to the right. The forms of the runes are practically identical with those in the Paris codex. The mistake erisenon for episenon (Gk. énion $\mu \mathrm{ov}$ ) may point to an insular prototype, the $p$ of which was read as $r$. In the list of rune-names the form bira implies an exemplar with open $a$, so that the final $i c$ of biric could be read as $a$.
The puzzling numerical values assigned to the letters of the Latin alphabet are found only in the Paris and Strasbourg manuscripts, not in the other De inventione versions :
$\mathrm{A}=\mathrm{D}, \mathrm{B}=\mathrm{CCC}, \mathrm{C}=\mathrm{C}, \mathrm{D}=\mathrm{DCC}, \mathrm{E}=\mathrm{CCL}, \mathrm{F}=\mathrm{XL}$, $\mathrm{G}=\mathrm{CCCC}, \mathrm{H}=\mathrm{CC}, \mathrm{I}=\mathrm{I}, \mathrm{K}=\mathrm{C}, \mathrm{L}=$ quinquaginta, $\mathrm{M}=\mathrm{II}, \mathrm{N}=\mathrm{CX}, \mathrm{O}=\mathrm{LX}, \mathrm{P}=\mathrm{CCCC}, \mathrm{Q}=\mathrm{CCCC}$ $R=L X X X, S=L X X, T=C X L, V=L, X=$ decern, $\mathbf{Y}=\mathrm{CL}, \mathrm{Z}=\mathrm{DC}$.
The text explains this as an older, fuller use of the alphabet for numerical purposes. Although there is some degree of corruption in the numerals (the value CCCC is given to three different letters), there can be no doubt that we have here a system of indications of distance derived from that of the ancient agrimensores, as is found e. g. at the end of the Notae Papianae et Einsidlenses (1). The numerals are those which apply to the letters having a horizontal stroke over them: $\mathbb{A}=$ Passus $D$, $=$ Passus CCC, etc.

> 16. London, British Museum, Cotton MS. Titus D 18 (saec. XV; saec. XIII).

This manuscript shows how the De inventione litterarum could live on for centuries and provide the framework for further alphabetical studies. Here it has grown into a regular liber alpha-
(1) T. Mommsen, Notarum Láterculi. (H. Keil, Grammatici Latini IV. Lipsiae, MDCCCLXIV), 330 . A similar list of numerical values, but going only from $I(=Z)$ to XXVI $(=B)$ is found in Heidelberg MS. Salem 9.39 fol. $\mathbf{2}^{\text {t. }}$, cf. p. 307.
betarius, in which material gathered from different sources has been more or less skillfully fitted into the original frame ( 1 ). This liber alphabetarius is bound up with a collection of Middle English texts with which it had originally nothing to do. At one time it belonged to one Andreas Davidsonus (fol. $\mathrm{I}^{\mathrm{v}}$ ). Wanley was the first to mention the runic alphabet (fol, $7^{r-v}$ ); he informs us that the manuscript was formerly in the possession of Thomas Allen (2).
Leather binding (nineteenth century), with gilt stamped Cotton arms Consists of two manuscripts : $\mathrm{A}=$ fols. $\mathrm{I}-12 ; \mathrm{B}=$ fols. $\mathbf{1 3 - 1 4 8}$, gathered as follows
$\mathrm{VI}[\mathrm{I}-12]+\mathrm{I}[13]+\mathrm{V}[14-23]+\mathrm{V}[24-35]+\mathrm{V}(+1)[36-46]+\mathrm{V}$ $[47-58]+\mathrm{V}(+\mathrm{r})[59-69]+\mathrm{V}[70-79]+\mathrm{VI}[80-9 \mathrm{I}]+\mathrm{VIII}[92-107]$
 $[135-147]+1[148]$
In front there are 4 paper and 2 parchment fly-leaves (not counted). The first of the parchment fy-leaves was at one time pasted onto a binding with two clasps. Fol. 13 was added when the two parts were brought together Fol. 148 is a larger single folio, loosened from a binding with two clasps and olded in three. There are press-marks on fol. ${ }^{*} \mathrm{I}^{v}$ : Titus D 18; XII A, and below to the left : XXII. A in pencil; quires are marked as follows: $14^{T}$


The present state of A shows that it must have been independent for some length of time : the rather thin parchment is much worn, especially fols. and 12. It has suffered some damage from moisture : the rubrics are often hardly legible.
Format of A: approx. $150 / 155 \times 122 \mathrm{~mm}$; the size of the written area and the number of lines vary, as the pages are not ruled; when fully used they originally have had a different size, higher and narrower: the upper and lower
(1) T. Sмith, Catalogus, 129.

Catalogue (1802), 565.
W. Grimm, Ueber deutsche Runten, 153 f.
J. M. Kkmble, On Anglo-Saxom Runes, 334, 338; PI. XV, x, 2.
G. Strphenss, Monuments I, 112, nos. 52-54.
T. von Gumarercer, Die auyelsächischen nune 10 I., 24
C. L. Wrans, Late Ola

In Krmale's paper the codex is quoted as "Cotton MS. Tib. D.XVIII" which led Strpgens to include it by the side of Cotton MS. Titus D. 18 (G. Strphins, Monuments I, 107, no. 24).
(2) H. Wanley, Catalogus, 247. In the upper margin of fol. $\mathrm{Ir}^{\top}$ there is another owner's name (partly cut away) : Simond [...]cy. On Thomas Allen's ownership of. N. R. Kkr, Thomas Allen's Manuscripts. The Bodleian Library Record II, no. 27 (1948), 125.
$33^{6}$
margins (esp. the upper) have been curtailed, and a strip of parchment, approx imately 5 mm wide below and $12-17$ at the top, has been pasted to the outer edge of each folio. Format of $\mathrm{B}:$ ca. $153 \times 120 \mathrm{~mm}$, written area ca. $110 \times$ 90 mm . The number of lines varies between 21 and 31 ; two columns. The quire marks show that the beginning of $B$ is mis
Contents :
fol. *2 ${ }^{\text {r }}$ Elenchus contentorum / in priore parte / codicis (later) $\mathbf{1}^{\text {r }}-12^{*}$ Liber alphabetarius, etc. (details infra)
13 Index Contentorum (later)
$14^{x}$ - $105^{x}$ Ancren Rivie.
05 $5^{*}$ - $112^{\mathrm{r}}$ Saxoles Warde.

${ }_{133^{v}}-147^{v}$ Seint Katherin
The first part of the codex $(=\mathrm{A})$ contains the following items (those taken from De inventione hitterarum are marked (x)) :
fol. $\mathrm{I}^{\mathrm{v}}$ Hebrew alphabet with introductory text (x).
fol. $2^{\mathrm{r}-\mathrm{v}}$ Alphabetum Ebraicum hic incipit (square Hebrew)
fol. $2^{v}$ Notes on the Hebrew alphabet, from Jerome.
fol. $3^{\mathrm{r}-\mathrm{v}}$ Hec pagina instruit greco[rum al]phabe/tum grecum cum numeris [.. n]otis propriis. (Greek alphabet with the names and Latin equivalents of the letters, their numerical values in Roman figures, and the Greek numerals).
fol. $3^{v}$ Aliud alphabetum grecum sive aliam formacionem litterarum (Greek alphabet with equivalents)
fol. $4^{\mathrm{r}}$ Notes on diacritic signs:diagamon, digamma, figura cesaris, etc., (cf. Isidore, Etymologiae 1, xxi) Alia formacio litterarum grecarum (Greek letters in the order of the Latin alphabet).
Greek-Latin glosses, with the transcription of the Greek words : $A \Gamma Y \Omega C$, agyos, sanctus; $\Omega \Theta H \Omega C$, o theos, deus... (4 ${ }^{v}$ ) ... MAḰKPC, macros, longus.
fol. $4^{\mathrm{V}-5^{\mathrm{r}}}$ Greek alphabet (values and names, and for $a-\kappa$ the numerical values in Arabic figures) with introductory text. (x)
fol. $5^{\mathrm{r}}$ Incipit NVMERVS grecorum ab vno vsque ad [m]illenarium (Greek numerals : Mia, dia, etc. and Román
figures). Item aliud alphabetum grecum sive aliam formacionem litterarum (Greek minuscule alphabet, with the names of the letters).
fol. $5^{\mathrm{v}}$ Hec pagina docet latinos, chaldeos, siros, gothos, / persos eciam et scottos. Littere Latinorum secuntur (?): Latin alphabet with introductory text. (x)
Item aliud alphabetum latinum (minuscule alphabet). Tabula alphabete quae / multum valet ad instruendos pueros (text in many places illegible, especially along the left margin).
fol. $6^{r}$ Syllabary, in two columns : ba be bi bo bu to za ze zi zo zu, and bla ble bli blo blu to sna sne sni sno snu. Littere caldeorum et sirorum (alphabet of 25 letters, no values nor names). Below : non parebant due littere [...].
fol. $6^{\mathrm{v}}$ Littere Gothorum (alphabet of 20 letters); alphabetum persicum (21 letters).
RVNES : a Scandinavian runic alphabet, with at the end the word "amen" written in these runes.
fol. $7^{\mathbf{r}}$ Aethicus Ister's alphabet, with introductory text. (x) De litteris Nortmannorum / quarum forme sequntuR. Runic alphabet (letters, values and names), with introductory text (x), ending on
fol $7^{\mathrm{v}}$, and immediately followed by Item / aliter and Nemnivus's alphabet (letters, values and names); after $z$ : Ite $m$ de diptongis. The lower half of the page is blank.
fol. $8^{x}$ Incipit oratio dominica grece et latine scripta (Greek text of the Lord's Prayer, with interlinear Latin gloss). IIATEP HMON . O ENTIC . OPANIC ... : Pater noster qui es in celis ... .
fol. $8^{v}$ Incipiunt grece prepositiones ( 6 ll ).
Alphabetum Anglicum : a minuscule alphabet (except $A, \nexists)$ with the names of the letters : a be ce de ... $\mathrm{x}=\mathrm{ix}, \mathrm{y}=$ wi, $7=$ and, $\mathrm{p}=$ wen, $\mathrm{P}=$ thorn, $\mathrm{B}=$ thorn, $\delta=$ thorn and commentary :
Iste Anglice littere \& proprias figuras ac nomina propria pos/sident vt supra notatur. Hec littera 7
anglica 'and' / est vocata \& ponitur pro istis sex coniunctionibus: et, que, at, / atque, ac, ast. Hec littera $p$ anglica 'wen' est / vocata \& ponitur pro w. Hec littera ${ }^{p}$ anglica ' thet' / est nominata \& ponitur pro quod (corr., first th). Iste tres $\mathrm{B}, \mathrm{B}, \mathrm{\delta}$ / littere 'thorn' sunt nominate \& ponuntur pro th. Below, notes in later hands.
fol. $9^{v}$ UERSVS SIBILLE DE ADVENTV DOMINI.
fol. $9^{\mathrm{v}}$ Hec de Christi natiuitate, passione et resurrectione. Explanations of IHCSS. XPICTOC. $\Theta E \Omega$. IOS. CSOHP (transcribed IESUS CREISTOS TEU IOS SOTEP).
fol. yor Poems on climate zones, etc.
fol. I $^{*}$ Poems titled : DE ARTICO CIRCULO; DE SOLSTICIALI CIRCVLO; DE EQVINOCCIALI CIRCVLO; DE HIEMALI CIRCULO; DE ANTARTICO CIRCULO; DE DVODECIM SIGNIS \& RELIQVIS.
fol. $\mathrm{I}^{2}$ YMNVS GRECORY ANTE CANONEM (4 11 ., Greek written with Roman letters); INCIPIT LETANIA GRECORVM (same writing, incomplete).
As the above description shows, the liber alphabetarius has more than twice the volume of the De inventione tract. Many of the additions, especially the Hebrew (one), Greek (four) and Latin (one) alphabets will be hard to trace (cf. p. 286). The Hebrew alphabet on fols. $2^{\mathrm{v}}-3^{\mathrm{r}}$ shows a curious order, probably reflecting the arrangement of the exemplar: hheth zain vav he daleth gimel / beth (two forms) aleph nun (z) mem / mem lamech kaf (2) ioth theth / quof tsade (2) phe (2) / ain tsamehh nun (3rd form); then various combinations: tha, tta, fa, etc. This jumble of letters may be a precious help in tracing the source of this alphabet. But for the rest the additional Hebrew and Greek material can only prove how the knowledge of these languages had progressed since De inventione litterarum was written.
Nor will the English alphabet on fol. $8^{\mathrm{v}}$ be of great help in tracing the sources of the additions. The knowledge of the
additional letters must have been widespread, even though becoming obsolete by the time the manuscript was written. In this connexion the absence of the letter yogh may be noted (1) The name thorn was one of the last to survive; wen for $w$ may perhaps be interpreted as pointing ultimately to a Kentish origin (cf. p. 16).
The spurious alphabets-if we may call them so for the time being-will probably provide us with precious indications as soon as they have been studied in detail. These alphabets are :
(x) the Chaldaean and Syrian alphabet (fol. 6r)
(2) the Gothic alphabet (fol. $6^{9}$ )
(3) the Persian alphabet (fol, 6v)
(4) Nemnivus's alphabet (fol. $7^{\mathrm{V}}$ ).

The text at the top of fol. $5^{\mathrm{v}}$ promises the following alphabets : Latin, Chaldaeo-Syrian (i.e. Assyrian), Gothic, Persian and 'Scottish'. This last name is not found elsewhere in the liber alphabetarius." At first sight one might conclude that the alphabet going under this name was dropped or forgotten by the scribe, but there is another possibility : could not Nemnivus's pseudo-Welsh alphabet be meant? It is found here without the introductory text (cf. p. 157), and this may have led to the confusion of Welsh and Scottish. Nemnivus's alphabet can hardly have been added to the collection of alphabets except in England : it is quite unlikely that it ever reached the Continent. A peculiarity of the alphabet as found here is, that the letters coming after $z$ form a group apart, with the heading item de diptongis. The compiler who used De inventione litterarum as a framework may have chosen to insert Nemnivus's alphabet after the runes in order to indicate that he was aware of the real character of the Welshman's creation. The alphabet in our manuscript is closely related to the oldest version in Oxford MS. Bodl. Auct. F. 4.32. Cf. p. 157 f.
The other alphabets, except the Persian, are also found elsewhere and have been briefly discussed in the Appendix to the preceding chapter.
(1) Cf. A. Pauss, The Name of the Letter $y^{\prime}$, on the occurrence of this letter

As to the runic alphabet, it has a number of peculiarities not found in the other De inventione versions:
$c:$ the name cen corresponds exactly to the original OE. runename; all other versions have a mutated initial (ch-).
$h$ : no other version has hegl, which is again a genuine OE. form (as opposed to Continental Gmc. hagal elsewhere (1)).
$q, x, y$ : the compiler seems to have paid special attention to the acrostic principle; hence his names qhon, xelach, yri corresponding to chon, helach, hyri (and variants) in the other manuscripts. Similarly he may have dropped initial $h$ - in (h)is and (h)ur
$s$ : the name sigil too may have been anglicized (the other versions have $u$, $u$, etc. in the first syllable) (2).
In other respects we shall find the Cotton manuscript to provide remarkably archaic material, but the features enumerated above have no counterpart in any of the De inventione manuscripts. Even if we do not consider the cases where the compiler simply restored forms in agreement with the acrostic principle, cen and hegl (and also runstafas in the text) seem hardly to fit into Continental Gmc. surroundings as evidenced by asc, gibu, not, othil, tac, ziu. Therefore we must suppose that the compiler had an English runic alphabet (or a fuporc) at his disposal; it enabled him to make a few corrections. The presence of Nemnivus's alphabet clearly indicates that he used old material available in England only. There remains a difficulty : why should this Englishman have corrected hagal to hegl, and not the other unEnglish rune-names? In a number of cases the acrostic principle may have prevented him from doing so : he could not change asc to æsc (or esc, cf. hegl), drom to thorn or porn, ot (h)il to efel or ethel, tac to dxg or deg, and siu to tii(r), without upsetting the whole system. We saw he demonstrated his respect for the acrostic principle by changing chon to qhon and helach to xelach. He may, however, have used the same excuse for
(I) The form hegl points to a prototype originating in Kent or Mercia, cf. E. Strvers-K. Brunngr, Altenglische Grammatik, $\$ 52$ (z) E. Severs-K. Brunner, Altengluche Grammatik, $3 \times$ A. 2: the $y$ of sygil was unrounded to 2
introducing hegl: if he found in his exemplar the form agalc (which occurs in the closely related Paris and Strasbourg manuscripts), he had to substitute for it a name with initial $h$. Thus he would be led quite naturally to replace it by his native hegl. With cen and sigil the case is not so clear; perhaps here too the prototype presented some monstrosity similar to agalc. As to runstafas, a form like runstabath in the related versions would of course have to be corrected. The form in the Cotton manuscript may either be the regular English form (nom. acc. pl. of runstef) or a Latin acc. pl.
A few words remain to be said about the composition of the liber alphabetarius. It is made up of the following elements :

DIL : A De inventione litterarum text as known from French manuscripts (here we have to anticipate the results of the discussion on p .345 ff.).
CA : A collection of alphabets such as we found circulating in France (Chapter III, Appendix).
N: Nemnivus's alphabet, known only from England.
AM : Additional Hebrew, Greek, Latin and philological material.
It is rather probable that DIL and CA had been brought together before the two were imported into England (cf. Munich MS. 14436), although we cannot know how far they had been integrated. N can only have been added in England. As to AM, that may have been inserted either in France or in England, and either at once or by steps. This may then be graphically represented as follows :


Lib. Alph.
We have no indication as to the place where the liber alphabetarius was written. Even Nemnivus's alphabet is no clue. The other versions of this pseudo-Welsh creation are localized on the

Welsh-English border and afterwards at Glastonbury (Oxford MS. Bodl. Auct. F. 4.32), Thorney (Oxford MS. St. John's College 17) and perhaps Canterbury (Cotton MS. Galba A 2).
17. Florence, Biblioteca Medicea Laurenziana, MS. S. Marco 604 (saec. XI in.).

Although this manuscript does not contain the runic alphabet, it may throw some light upon the history of the De inventione text and consequently also upon the runes themselves.
Modern binding (seventeenth century ?), wooden boards and leather back with title and number stamped in gold. Parchment of good quality, well preserved; 117 folios $=15$ quires numbered in the lower right corner of the first page of each quire ( r $^{\text {th }}$-- 15 th century), several quires are missing; $I=$ fols. $1-5$ : ternio, the fourth folio of which is missing; $11-X V=$ fols. 6-117: 14 quaternions, with lacunae after fols. 29 (" hic deest quinternio, quo perierunt septem sequentium Pontificum vitae '), 45 ("cetera desunt"), 53 (" multa desunt"), 6r (" multa hic desunt") and 77.
Format : $223 \times 140 \mathrm{~mm}$; written area $170 / 185 \times 100 / 105 \mathrm{~mm}$; $24-26$ lines to the page.
Contents (1):
fol. i $^{\top}$ Epitome Joannis Diaconi de Episcopis Neapolitanis.
6r Pontificale Romanum falso adscripturn Hieronymo, a S. Petro, usque ad Leonem II, cetera enim desunt, quemadmodum etiam abscissae sunt, nonnullae chartae unde desunt vitae VII. Pontificurn, qui Hormisdam secuti sunt.
$4^{6 r}$ Catalogus virorum Illustrium ab Hieronymo editus, mutilus in principio.
$66^{*}$ Epistola Quod vult Dei Diaconi ad Sanctum Augustinum; 68x Responsio Augustini ad ipsum; $69^{F}$ Aliae duae Epistolae eorumdem.
$70^{*}$ Liber S. Augustini de haeresibus.
${ }^{\text {or }}{ }^{\circ}$ Compendium IX priorum Capitum Cassiodori de Institutione Divinarum Litterarum.
$94^{\text {r }}$ Concilium Romanum sub Damaso. Christi nomina
94V Gelasii Decretum de recipiendis et abiciendis libris.
$98^{\circ}$ Opusculum de vitiis et virtutibus absque nota Auctoris.
106? Alius Opusculum adscriptum Isidoro, quod probabilius est fragmenturn alicuius libri Ethimologiarum.
Written by several Beneventan hands of the early eleventh
(1) As found in MS. S. Marco 945, pp. 52-53, of the same library, with additional notes kindly given by Dr. Teresa Lodi, Librarian.
century, probably in Naples; the script betrays some insular affinities, e. g. $H=$ enim ( I ).

Fol. $105^{\mathrm{r}-\mathrm{v}}$ shows the following disposition of the text :
(1) In the upper half of $105^{r}$ there is a figure, consisting of concentric circles enclosing four rings with inscriptions. The central field bears the inscription : Spera pitagoris / philosofi apulegio dedit. / de qua ré consulere uolueris. / ut puta de egris qua die ebdoma/dis incubuerit. et quota luna eo die / fuerit. et nomen eius per litteras infra scrip/tas singillatim numerando in unum col/lige. déin per XXX diuide et quotus numerus re/manserit in spera inspice in exteri/ori uita. in interiori mentem in/uenia (sic).
(2) In what little space is left free to the left and the right of this figure, begins the text on the Hebrew alphabet, ending with the alphabet itself on 11. 19-20 (letters, names and values). The order of the letters has been disturbed: from right to left first aleph - nun, then thau - res and, on the next line, sanech - coph.
(3) Ll. 21-24, and fol. 105 v, 1.1 : the text on the Greek alphabet, with the alphabet on Il. 2-3 (no names nor walues, except episimon, copi, ennacose (' 900 '), enna ( $\mathrm{M}=$ mille)).
(4) Ll. 4-8 : the text on the Latin alphabet; the alphabet itself is not given, although the next line is blank.
(5) Ll. 10-19: Aethicus Ister's alphabet with introductory text (letters and names, no values).
(6) Ll. 19-20: a shortened text on the runic alphabet; the latter is omitted; 11. 21-24 are blank
The text shows a number or scribal errors, some of which have been corrected by a contemporary hand (Abranam to Abraham, sciptas to scriptas, but also diluuium to dilubium); a few remain, especially in the sphera (the text of which is entirely corrupt) and towards the end of the treatise (literaru[m] caracteres, tradere curaui $[t]$; cf. the text on the runes).
The passage on the runes offers some special difficulties :
(1) E. A. Loww, The Beneventan Script: A History of the South Italian
Minuscule. Oxford, $9914,73,184,194$ f., 266 note 6,339 .
$\epsilon+$ literarum in gente nordomannorum fertur / primitus inuente quibus ob carminum eorum memoriam digeste sunt. The initial $\in$ is in red, as if it were the last letter of Aethicus's alphabet (the letters of which are rubrics, the names in black); the second H-like sign is the insular abbreviation for enim. We come close to the version in the Cotton manuscript : Hee etenim, etc. So we have to interpret $\in$ either as $\&=e t$, or perhaps as $\mathrm{E}=$ Hae. The latter mistake would not be impossible if the scribe (or the scribe of his exemplar) wrote from dictation; but since the $\in$ is a rubric, probably drawn after a given model, it will rather be a misreading for $\&$. After literarum some word like genus would be required by fertur; but considering inuente, it is much more probable that a word figurae, found in the related versions, was skipped, and fertur mistaken for feruntur. The form nordomannorum remains problematic.

The Tradition.
The following sigles are used in the discussion and in the: stemma on p. 349 :
a) hypothetical versions
$A \quad=$ the type of De inventione text circulating in Germany.
$\mathbf{A}_{\mathbf{1}}, \mathbf{A}_{\mathbf{l a}}, \mathbf{A}_{\mathbf{2}}=$ prototypes or groups of manuscripts derived from $A$.
$\mathrm{B}=$ the type of De inventione text known from France.
$\mathrm{B}=$ the type of De inventione text known from France.
$\mathrm{B}_{1}=$ the common ancestor of manuscripts P and S.
$\mathrm{X}=$ the archetype.
b) manuscripts (including one edition)
$\mathrm{Ba}=13$. Bamberg MS. Msc. patr. 130/2.
$\mathrm{F}=17$. Florence MS. S. Marco 604.
$\mathrm{G}=4$. M. Goldast's edition.
$\mathrm{H}=$ 5. Heidelberg MS. Salem 9. 39 .
$\mathrm{N}=6$. Nürnberg MS. 1966.
$\mathbf{P}=14$. Paris MS. 5239.
R $\quad$ = 9 . Vatican MS. Regin. 294.
$\mathrm{S}={ }^{15}$. Strasbourg MS. 326.
$\mathrm{SG}=$ I. St. Gall MS. 876.
$\mathrm{T}=16$. Cotton MS. Titus D 18
$\mathrm{U}=$ 10. Vatican MS. Urbin. 290
$W=8$. Munich MS. A. Weinmüller.
$176=12$. Karlsruhe MS. Aug. 176
$254=$ II. Karlsruhe MS. Aug. 254
$1010=7$. Vienna MS. 1о1о.
$1609=2$. Vienna MS. 1609
$1761=3$. Vienna MS. 1761
Among these seventeen versions two main types may be distinguished:

$$
A=S G \quad 1609 \quad 1761 \quad G \quad N \quad \text { 1010 } W
$$

$$
\mathbf{B}=\mathbf{P} \quad \mathbf{S} \quad \mathbf{T} \quad \mathbf{F} .
$$

The difference between these two types appears e. g. from the text on the Greek alphabet (1)

A (e. g. SG)
B (e. g. P)
Litteras uero Grecas in primis Cadmus Agenoris filius a Fe nice ueniens in Greciam nonnullas attulit. Post quem aliquantas alii adiecerunt quique ad numeros faciendos habiles habentur; earumque literarum cum quibus scribi potest summa ad XXIIII peruenit. Cetere caracteres III adiuncte sunt ut ad millenarium numerum venire possint.

Grecas litteras Cahtmus e Foenicę Agenoris filius primus inuenit decem et septem. His Palamides tres adiecit; post quem Symonides alias tres adnexuit, Pythagoras Samius I, quae in summa XXIIII consistunt; cum quibus uerba orationis componunt. Suntque omnes ad numeros habiles componendos cum adiectis nonnullis caracteribus ut ad millesimum numerum peruenire quaeant.

The two types differ in the text of all five paragraphs, and
(1) These texts have not been emended; I have only put in capitals and regularized the punctuation.

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even in the alphabets (e. g. Aethicus Ister's $z$ has the name zeta in A , but zothichin in B ).

Within these two main groups we may again distinguish several subtypes. Thus A consists of $A_{1}=S G 1600$ 1761 $G$ and $A_{2}=N$ 1010 $W$, which differ on a number of points of minor importance :

$$
A_{1}(S G)
$$

$\mathrm{A}_{2}(\mathrm{~N})$
Primo omnium litere hebraice lingue a Moyse inuente sunt et ab Esdra post illorum captiuitatem et reuersionis eorum renouate sunt, etc

In $A_{1}$ the two Vienna mancipts related $\left(A_{1}\right)$. In both the order of the first two paragraphs has been upset, resulting in the following sequence : Greek alphabet -text on the Greek alphabet-text on the Hebrew alphabetHebrew alphabet, etc.; both add omnia opera to the text on the Greek alphabet, and et ea cum summa cautela ego uobis decertaui conscribere to that on the Latin alphabet. This last addition is also found in Goldast's edition, but there the order of the paragraphs is quite regular. This may of course be a normalization due to Goldast. The latter's editorial technique was rather free, except as far as the alphabets were concerned (these seem to have been copied carefully); therefore it is difficult to decide what his exemplar was like

The inclusion of H in group A may at first sight be questioned. Its paragraph on the Hebrew alphabet is a quite long text; it offers some information also found in the manuscripts of group $B$. Similarly its text on the Greek alphabet states that Cadmus borrowed seventeen letters from the Phoenicians, a detail not given by the other versions of group A. But its first two paragraphs show exactly the same disorder as 1609 and 1761 , and that can hardly be a coincidence. $H$ also agrees with the A group on a number of details which can only be explained as due to close relationship. The passages in which H agrees with $B$ do not necessarily point to a common heritage, but rather
to the use of the same or of similar sources (cf. the texts in the Appendix to this chapter)
Five other versions have also been classified under $A$, but mostly on a narrower basis. R mentions the 'renovation' of the Hebrew alphabet by Ezra, a detail found in A but not in B; similarly its paragraph on the runes, with the equation Marcomanni $=$ Northmanni and the reference to the origin of the Germanic peoples, connects it with A rather than with B. U has a completely different text on the runes, but the mention of the theotisca lingua again reminds of A . For the remaining three manuscripts we have to rely entirely on the runic material. Here it is mainly the absence of some features typical of $B$ (e.g. the rune-name bira; the runic forms for $a b f s t$ ) which allow us to group them with $A$
In group $B$ the versions $P$ and $S$ are very close relatives, so much so that we should have to examine all texts they have in common (and not only the two De inventione versions) to ascertain their degree of relationship. For the time being I have considered them as being derived from a common ancestor, $B_{1}$. Manuscripts F and T agree on a number of points which also indicate a common origin $=B_{2}$, but it is not possible to decide whether $B_{1}$ or $B_{2}$ comes closer to $B$. As we saw already, $T$ has been revised by an Englishman (or at least with the help of genuine English material). $F$ is a somewhat atrophied form from which the runic alphabet has been omitted and the tex on the runes curtailed. Its main interest lies in its being written in Naples (or at any rate in a region with Beneventan script) this is an indication of the widespread interest in this treatise
The approximate localization of A and B offers little diff culty : A was obviously circulating in Germany, especially in the South-East, and B in France (mainly in the West ?). The analysis of the rune-names will show that the common archetype must also be assigned to Germany; this may be a factor in the discussion of the priority of A or B . In the following stemma however, I have left that point undecided. I believe that a more detailed study of the whole treatise (and not just of the part concerned with runes) would be needed fully to justify a stemma. Such a study hardly fits into the scope of the present
work, and therefore the stemma given here should only be considered as a first rough outline ( x ). We may return to it after having examined the runic material.


The Texis.
In the Introduction I gave my reasons for not offering a critical edition of the whole treatise. The texts which follow here will mainly help to understand the position of the runes. I have only included the most important variants, and felt free to correct obviously corrupt readings without detailed justification. The alphabets are those of the A group.
§ 1 A: Primo omnium litterae Hebraicae linguae a Moyse inventae sunt et ab Ezra post illorum captivitatem et reversionem eorum renovatae sunt; quarum elementa litterarum subtus ut invenire quivimus adnotata habemus, earumque summa XXII constat litterarum.
B : Primus omnium litteras ante diluvium invenisse Enoch dicitur, et post diluvium Cham filius Noe. Deinde Abraham Syrorum et Chaldaeorum literas invenit. Postea vero in monte Sinai Moyses ubi Lex constituta est invenit digito Domini scriptas. Litterae enim Graecae et Latinae ab Hebraeis videntur exortae; apud illos enim prius dictum est " aleph", deinde ex simili (1) Yet I am confident that it will be found right on most points by future. esearch
annuntiatione apud Graecos tractum est "alpha"; indeque apud Latinos " a ". Translator enim de simili sono alterius linguae litteram condidit, ut nosse possimus linguam Hebraeam omnium linguarum et litterarum esse matrem. Sed Hebraei viginti duo elementis litterarum secundum Veteris Testamenti libros utuntur.
H: Ante diluvium primus litteras Enoch invenit, quibus textum suae prophetiae scripsit illis temporibus, testante Iuda apostolo in epistola sua: "Prophetavit autem de his septimus ab Adam Enoch dicens : Ecce Dominus, etc." Sed tamen illae litterae qua figura et quo numero fuerint Scriptura minime memorat. Post diluvium vero Cham filius Noe litteras invenisse fertur. Deinde Abraham Syrorum et Chaldaeorum litteras invenit. Hebraeorum vero litteras digito Domini in monte Sinai scriptas primus omnium Moyses invenit quibus Legem populo conscriptam (i). Sed Hebraei nunc illis non utuntur litteris. Esdras autem scriba legisque doctor post captam Hierosolymam et restaurationem templi sub Zorobabel alias renovavit et invenit litteras quibus nunc utuntur Hebraei; quarum elementa figurarum subtus ut invenire quivimus annotata habemus, earumque summa XXII constat litterarum.
aleph beth gimel daleth he wau zai eth teth ioth caph
 hamad mom un smendatat phe sade off res sin thau
 Fig. 47
§2 A: Litteras vero Graecas in primis Cadmus Agenoris filius a Phoenice veniens in Graeciam nonnullas attulit [H : id est numero XVII]. Post quem aliquantas alii adiecerunt quaeque ad numeros faciendos habiles habentur. Earumque litterarum cum quibus scribi potest summa
ad XXIIII pervenit; ceterae caracteres III adiunctae sunt ut ad millenarium numerum perveniri possit.
B : Graecas litteras Cadmus a Phoenice [veniens] Agenoris filius primus invenit XVII. His Palamedes III adiecit; postquem Simonides alias III annexuit, Pythagoras Samius unam; quae in summa XXIIII consistunt, cum quibus verba orationis componunt. Suntque omnes ad numeros componendos habiles cum adiectis quibusdam caracteribus ut ad millesimum numerum pervenire quaeant.
alfa beta gamma delta ebrevis epísinon zeta eta theta

simma tau oy phi chi psi olonga ennacose chile

§3 A: Latinas namque litteras Carmentis nympha Evandri mater quae alio nomine Nicostrata dicebatur invenit et in Italiam eas prima attulit. Et postmodum Graecas litteras III adiecerunt Latini propter necessitatem, quia nonnulla verba necesse habuerunt sicut in Graecis habentur loquelis, ut est Christus ( $\overline{\mathrm{xps}}$ ), ymnus ac zelus et reliqua.
B: Latinas litteras Carmentis nympha Evandri mater quae alio nomine Nicostrata dicebatur invenisse perhibetur et in Italiam primum attulisse. Carmentis autem dicta quia carminibus futura canebat. Quaeque ${ }_{\star}^{\text {ad }}$ numeros
apud antiquos conficiendos habiles aestimabantur; sed modernis temporibus paucis assumptis nostrum numerum conficimus.

## ABCDEFGHIKLMNOPQRSTUXYZ

§ 4 A: Litteras enim Aethici philosophi et cosmographi natione Scythica nobili prosapia invenimus quas venerabilis Hieronymus presbyter ad nos usque cum suis dictis explanando perduxit, quia magnifice illius scientiam atque industriam duxit; ideo et eius litteras maluit promulgare. In istis adhuc litteris [si] fallimur et in aliquibus vitium agimus vos emendate.
B : Aethicus philosophus et cosmographus litterarum caracteres quos adinvenit ita ut infra notatum est distinxit, quosque beatae memoriae Hieronymus presbyter cum libro suo cosmographo Latinis tradere curavit; non ut illos imitemur scripturis nostris, sed ut sciremus industriam indagationis illius, qui illos adinvenit.
alamon becah cathu delfoi effothu fomethu garfou hetmu iofithu

kaitu lethfu malathi nabalath ozechi chorizech pithirin salathi
 intalach theotimos azathot req/pror yrchoim zothichin/zeta $\times \chi$ tट of ut ye z $Z$

$$
\text { Fig. } 49
$$

§ 5 Cf. infra.
$\S 6 A_{1 a}+G$; partly in $A_{2}$.
$\mathrm{A} \overline{\mathrm{V}} \mathrm{C}$. Augustus . $\overline{\mathrm{BM}}$. bonae memoriae. $\overline{\mathrm{DM}}$. domus mortui. $\overline{\mathbf{E P M}}$. epistolam misit. $\overline{\mathrm{FR}}$. forum. GCS. Gaius Caesar, $\overline{\mathrm{IMP}}$. Imperator. is . kalendas. $\overline{\mathrm{IAN}}$.

Ianuarias. MCS. Marcus Caesar. NC. Nero Caesar. $\overline{\mathrm{OOP}}$. Oppidum. $\overline{\mathrm{PRS}}$. Praeses. $\mathrm{C} T$ T. Quintinus. R. Rex. $\overline{\mathrm{SN}}$. Senatus, $\overline{\mathrm{TIB}}$. Tiberius. $\overline{\mathrm{VAL}}$. Valerius. * Xynodus. YMN. Ymnus. $\overline{Z E N}$. Zenovius. $\overline{\mathrm{LR}}$. Locus religiosus. $\overline{\mathrm{CM}}$. Comes.
Istiusmodi genus descriptionis notae Iulii Caesaris appellatur, quod cum litteris quae antiqua manus appelatur perficitur: Cum quis Romanorum in aedificiis, parietibus, vel in turribus aut in monumentis saxeis ob memoriam sui suorumque aliquid litteris commendare scalpendo curaverat, eas cum punctis et titulis obligat, ne statim quis ignarus possit legere; ut supra in paucis ostensimus.
$\S 7 A_{l a}+G ;$ traces in $A_{2}$
A EIO U NC•P•T V:RS::S B::N•F:C•
 M:RT•R•S
Genus vero huius descriptionis tam quod supra cum punctis $V$ et vocalibus, quam subtus cum aliis vocalibus quam solitum est informatum continetur, fertur quod ${ }^{\text {b }}$ sanctus Bonifatius Archiepiscopus ac Martyr ab Angulsaxis veniens hoc antecessoribus nostris demonstraret; quod tamen non ab illo in primis coeptum est, sed ab antiquis istiusmodi usus crevisse comperimus.
AEIOU KBRXS. XPP. FPRTKS. TKRP. KNSTBR. BFKPX SBFFKRP. BRCHKTFNFNS. SCFPTRP RFGNK. XT. DFCXS. BXRK, etc.
$\S 8 \mathrm{G}$ and $\mathrm{A}_{2}$; monograms also in H and 1761 .
Litterae enim monogrammae scriptae nonnullis in locis inveniuntur, ubi pictura cum museo (1) in pariete imaginis aut in velis, vel alicubi aliter facta fuerit; ibi eorum nomina cum congerie litterarum unum caracterem pictores facere soliti sunt, quod monogramma dicitur; quorum significatio subtus per pauca adnotata monstratur.
(1) Cf. musivum in DU CANGe, Glossarium medixe et infime latinitatis.

Monograms for Dominus, Sancta, Maria, Sanctus, Iohannes, etc., ca. 18 in all].

## $*^{*} *$

THE TEXT ON THE RUNES

This is the text on the runes in the two versions, with the variants from each manuscript ( 1 ):
§5 A: 1 Litteras quippe quibus utuntur Marcomanni, quos nos Nordmannos vocamus, infra scriptas habemus (a quibus originem qui Theodiscam loquuntur linguam trahunt); cum quibus carmina sua incanta-
5 tionesque ac divinationes significare procurant, qui adhuc pagano ritu involvuntur.
1 Litteras] Litterae H, [.]itteras roro; quippe] om. NW roio; quibus] quas G . 1 N W
2 Nordminns Normannos NW 1010; scriptas] scripte H , scriptos N ; habemus] habentur H 16091761 .
4 tradunt H W 101016091761 ; incantationes $\mathbf{W}$ 1010; trahunt] -que ac divinationes om. $W$ roro.
significare] om. N W roro;
6 qui] quia 176r; pagano ritu] pagani ritus H 1609 176r, paganorum ritu N W 1010, paganis ritibus $\mathbf{G}$;involvuntur]inuolluuntur 1010 .
R: Litere quibus utuntur Marcomanni id est Northmanni a quibus originem trahunt qui Theotiscam loquuntur.
SG: Litteras quippe quas utuntur $[\ldots .$.$] nos nordmann[.]$ uocamus infra [...]nesque etc. inuoluntur
§ 5 B: I Hae quoque literarum figurae in gente Northmannorum feruntur inventae; quibus ob carminum eorum memoriam et incantationum uti adhuc dicuntur; quibus et runstabas nomen imposuerunt, ob id,
5 ut reor, quod his res absconditas vicissim scriptitando aperiebant.
1 Hae] Haee P S, Hee T, F(?); quoque] \# (=enim) F, etenim T. Hae] Haee PS, Hee T, F(?); quoque]
Northmannorum] Nort- T, Nordo- F.
2 feruntur] fertur $F$; inventae] primitus inventae $T$ F.
(1) Purely graphical variants ( $u: v ; a e: x: q: e ; q u: c ;$ litera : littera) have as a rule not been recorded.

3 et incantationum] om, $F$, which ends: digeste sunt 4 runstabas] -stabath PS, -stafas 'T.

## $*^{*} *$

Research devoted to the texts and the runic alphabet has been surveyed in the general introduction and at the beginning of this chapter. As far as the texts are concerned, we may accept Baesecke's analysis ( 1 ) as a starting point. Version A tells us that
"The letters which the Marcomanni use-we call them Nordmanni-we have written below; from them [i. e. the Nordmanni] those people descend who speak Germanic with these [letters] they 'signify' their songs, incantations and divinations, [for] they are still given to pagan practices. ' Version B
" These forms of letters are said to have been invented among the people of the Northmanni; it is said that they still use them to commit their songs and incantations to memory. They gave the name runstabas to these letters,
I believe, because by writing them they used to bring to light secret things. '
In version A several layers can easily be distinguished. The first probably contained only the definition of the runes as letters used by the Marcomanni; the purposes for which this sort of writing could be used were probably also indicated. The term Marcomanni was then defined as equivalent to Nordmanni; at any rate, I believe this is the simplest way to explain how the two names were brought together. Baesecke proposes to consider the term Marcomanni as a later addition, but he is led to do so by his assumption that B (which only knows the Northmanni) is older than A. The Nordmanni were then characterized in turn as the people whose descendents speak the lingua Theodisca, i. e. Germanic. Lastly, the use of magic and oracles with the Marcomanni was explained by their still living in paganism.
As Baesecke rightly remarks, the Marcomanni of the $D e$ inventione text can hardly have anything to do with the people
(1) G. Babsecke, Abecedarium Nordmannicum.
of the same name known from Roman history (saec. II-III). Lazius connected them with Ditmarschen and Mercia; his discussion of this relationship has now only historical interest. Baesecke points out that there was a people called Marcomanni in the twelfth century: with the Holzati and the Sturmarii it was subject to Count Adolf II of Nordalbingia. Baesecke supposes that from an original frontier guard (against the Danes) they had developed into a tribe, and compares them with the Marcomanni of Antiquity and the ON. Markamenn. The argument is in fact W. Grimm's ( 1 ). He argued that Scandinavians could not be meant here, because Hrabanus (i. e. the author of De-inventione litterarum) would not have equated their language with the original Germanic language. But if the clause referring to the Theodisca lingua is to be connected with some of the " numerous reports of historians, from the Goth Jordanes (550) to the Frank Frechulf (about 830), according to whom at least the Goths, or even all Germanic tribes, came from Scandinavia " (2), there is no reason for doubting that the Marcomanni were Scandinavians. It will not do to show that Nordmanni or Nordliudi could also indicate the Nordalbingians, and that these may have been pagans at the time when our treatise was written. I rather believe that the name Marcomanni is connected with Denmark, or at least that the scholar who added the gloss quos nos Nordmannos vocamus believed in such a connexion. The runic alphabet which follows has nothing to do with German runes : it is an artificial mixture of OE. and ON. runes, whilst the rune-names have been more or less successfully forced into a German garb (cf. infra).

Some information about Denmark must have reached Germany by the end of the eighth century. It was certainly known
(1) W. Grimm, Ueber deutcche Runen, $\times 50$ : "Skandinavier sind hier auf keinen Fall gemeint; Hrabanus würde ihre Sprache nicht die ursprünglich deutsche genannt haben. An die aus der früheren Periode bekannten Markomanen, die erst im sudichen Deuk hand inren Endlich mit den Quaden dem Strom der Volkerwanderung nach Gallien und Spanien folgten : an diese laingst verschollene Markomannen ist nicht mehr zu denken. Der Ausdruck Nordmami deutet offenbar auf ein Volk im nördlichen Deutschland ".
(z) E. Prokosch, A Comparative Gernanic Grammur, 26. Cf. infra
that the opposition of the Saxons to Charlemagne's attempts to incorporate them into the Empire was connected with some form or other of Danish support. As early as Willibrord's days missionaries had occasionally visited Denmark. Willibrord himself " made a journey to Denmark, bringing back thirty Danish boys, whom he baptized, no doubt in the hope of establishing a kind of seminary for future work, thus anticipating the English missionaries of the next centuries in Scandinavia "(1). The late eighth century is exactly the period during which runic writing is revived in Denmark (2); it may have served as a means to " demonstrate Germanic character and independence" (3) against ever stronger foreign influences. These new runes were not unknown in Germany, to judge from the Abecedarium Nordmannicum. We shall see that the runic alphabet of the De inventione contains some ON. elements.
In the text significare is somewhat ambiguous : as far as carmina goes one might simply translate it by 'to write', but in connexion with magic (incantationes, and especially divinationes) one would rather expect something like 'to effect by signs $=$ runes '. In version $B$, too, the reference to incantationes is awkward; it looks indeed as if the magic use had been stressed on an afterthought.

The remark on the Theodisca lingua need not retain us very long. The text on the runes is quoted in a good many works discussing the word theodiscus (4). It is one of the instances
(x) W. Levison, England and the Continent, 64 .
(2) O. von Frusern, Rumorna, ir4 fi. (J. Brandum - Nibisen)
(3) A. Bexssteo, Mdinumer, 328 (where this applies to the origin of the runes).
(4) Among the numerous works discussing the origin and early use of this word, see:
W. Krogmann, Deutsch. Berlin, 1936.
J. L. Wrisgrrber, Theudisk. Der deutsche Volksname und die wesiliche Sprachgrenze. (Marburger Universitatsreden 5). Marburg, 1940
H. Bringann, Theodiscus. In : Altdeutsches Wort und Wortkunstwerk, Fs. G. Baesecke), 20 \#f.
T. Frings, Das Wort Deutsch. In : Altdeutsches' Wort und Wortkunstwerk Fs. G. Baesecke), 46 ft.
E. Lerch, Das Wort "Deutsch". Sein Ursprung und seine Geschichte bis auf Goethe. (Das Abendland 7). Frankfurt, 1942.
G. Hrrow, Der Volksbegriff im Sprachschatz des Althochdeutschen und
where there can be no doubt about the interpretation of this term. As was indicated before, this remark may go back to Jordanes's description of Scandinavia as an officina gentium, or to a related statement ( I ).

Whether the reference to the divinationes need imply that the author knew Tacitus's Germania, I dare not affirm. Baesecke states that divinatory practices were unknown among the Danes ca. A. D. 800 . But we know hardly anything about carmina having been written down with runes, and that Baesecke will not deny. If divinationes was really borrowed from Tacitus, it may be an argument in favour of Fulda as the place where the treatise was compiled: Fulda is the only place where the Germania seems to have been known in the ninth century, Note that version B (where the term divinationes does not occur) uses a circumlocution with approximately the same value: res absconditas vicissim scriptitando aperi(re).
Version B is on the whole more straightforward, but it may also consist of two or even three layers. The clause explaining the name *runstabas looks like a late addition. That explanation can only be due to somebody who really understood the word : he must have known that *rün- meant ' secret, mystery' (res absconditas) and *stab- 'letter' (vicissim scriptitando). The use of the compound ${ }^{*}$ rṻnstab- may perhaps indicate that his native language opposed that word to ${ }^{*} b \bar{o} k s t a b-$ - Roman letter, bookhand' (2) (although OE. bocstaf is occasionally used for 'rune'). The form -stabath in $P$ and $S$ is quite puzzling. In

## Altriederdeutschen (Junge Forschung 8). Halle, 1941.

G. Bassecks, Das Nationalbewuustsein der Deutschen des Karolingerreiches nach den zeitgenossischen Benennungen ihrer Sprache. In : Der Vertrag von Verdun 843. Leeipzig, 1943, 116 ff .
(i) "Ex hac igitur Scandza insula quasi officina gentium aut certe uelut uagina nationum cum rege suo nomine Berig Gothi quondam memorantur egressi (cap. 4), c. also. Haber quoque is inse septentrionali, amplam insulam nomine Scandzam, unde nobis sermo, si dominus iuuauerit, est adsumendus, quia gens, cuius originem flagitas, ab huius insulae gremio, uelut examen apium erumpens, in terram hagitas, ab huius insulae gremio, uelut examen apium erumpens, in terram
Europae aduenit" (cap. 1) : Ioronnss de origine actibusque Getarum ed. A. Europae aduenit (cap. 1): Iordanss de onigine acibusque Getarum ed. A. (2) H. Kuhn, Das Zeugnis der Sprache iber Alter und Ursprung der Runenschrift. In : Beiträge zur Runenkunde und nordischen Sprachwissenschaft, 54 f.
$35^{8}$
the text I have corrected it to -stabas, cf. OE. stafas nom, acc. pl. of stæf ( 1 ), but I admit that the distance between -s and -th is rather great. One could also try to connect -stabath with ON. stafar, older stafaR, nom. pl. of stafr, but this hardly helps to bridge the gap. The form runstafas in T is a poor clue, as it is ambiguous : it may be due to the scholar who anglicized a number of rune-names (chen $>$ cen, hagal $>$ hegl) in that manuscript. Yet I believe that runstabas in Bultimately goes back to information provided by an Englishman (of course not the same as the one who adapted T). So Baesecke and Krause are right if they consider the text of $B$ as more 'English' than that of $A$. This does not necessarily mean, however, that $B$ is closer to the archetype than A : its runes and rune-names show certainly more traces of wear than those in A.
In the expression which describes the purpose of runic writing, viz. ob carminum eorum memoriam et incantationum, the reference to incantations looks like an addition. Runes may have been used to put poems on record; they may have been used in charms; but it is far less likely that they were used to record charms. Moreover the rest of the text does not state that runic writing was a pagan custom at the time when this version was written, but it may have been so at an earlier period (uti dicuntur : aperiebant). If runstabas goes back to a revision of the text by an Englishman, it is not impossible that the same scholar also toned down the characterization of the runes as a pagan form of writing : in his home country they had not fallen under the anathema of the Church, as is shown by their use in Christian monuments.
the runes and their names
The runes and the names found in fifteen versions (SG and F have only the text) are reproduced in the two tables following here :
(1) Intervocalic $-b$ - may either be an archaic OE. spelling, cf. hlabard $=$ hlaford, E. Sisvers - K. Brunner, Allengärche Grammatik, § i91; or else it may be explained in the same way as that in gibu, cf. infra.

|  |  | ＊ | $\cdots$ | ＝ |  |  |  | 10 |  |  |  |  |  |  |  | m． | － |  | $\sigma$ |  |  |  |
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| 1609 | 1761 | G | H | $\mathbf{N}$ | 1010 | W | R | U | 254 | 176 | Ba | P | S | T |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| asc <br> birith <br> chen <br> thorn <br> ech <br> fech <br> gibu <br> hagale <br> his <br> gilch． <br> lagy <br> man <br> not <br> othil <br> perc | asch <br> biriht <br> chen <br> thorn <br> eho <br> fehc <br> gibu <br> hagale <br> his <br> gilch <br> lagv <br> man <br> not <br> othil <br> perch <br> chon <br> rehit <br> suhil <br> tac <br> hur <br> helahe huyri． <br> ziu | asc <br> birith <br> chen <br> thorn <br> ech <br> fech <br> gibu <br> hagale <br> his <br> gilc <br> lagu <br> $\operatorname{man}$ <br> not <br> othil <br> perc <br> chon <br> rehit <br> sugil <br> tac <br> hur <br> halach <br> huyri <br> ziu | asc <br> birith <br> ch．n <br> thorn <br> ech <br> fech <br> gibu <br> hagale <br> his <br> gilc <br> lagu <br> man <br> not <br> othil <br> perc <br> chon <br> rehit <br> suhil <br> tac <br> hur <br> helach huyri <br> ziu | asc <br> birith <br> chen <br> thron <br> ehc <br> fech <br> gibul <br> hagal <br> his <br> glic <br> lagu <br> man <br> not <br> othil <br> perch <br> chon <br> rehit <br> siugil <br> tac <br> hur <br> helac <br> hurn <br> ziu | ase <br> birith <br> chen <br> thron <br> ehe <br> fehc <br> gibul <br> hagal <br> his <br> glic <br> lagu <br> man <br> not <br> othil <br> perch <br> chon <br> rehith <br> siugil <br> tac <br> hur <br> helac <br> hum <br> ziu | ase birith chen thron ehe fehc gibul hagal his glic lagu man not othil perch ＂chon rehith siugil tac 11 hur： helac hurn ziu | asc birith chen thron ech fech gibu hagalc his kalc laga man noth otil pert chan reiht subil tac hur helach huuri | asc biric chon dhorn ech fech gibu hagal is kol lago man nod othil perc chon reh． sugil tach hur heluch horsi zia | asc <br> biric <br> cheri <br> t＇h＇rom <br> th <br> fech <br> gibu <br> hagale <br> his <br> gile <br> lagu <br> man <br> not <br> othil <br> perc］ <br> chon <br> rehit <br> sugil <br> tac <br> hur <br> helach <br> huyry <br> zui | fech <br> gibu <br> hagale <br> his <br> gilch <br> lagu <br> ．an <br> not <br> othil <br> perc <br> chon <br> ．．h．t <br> suhil <br> tac <br> hur <br> helach <br> huiry <br> ziu | dhron ech <br> fech <br> giby <br> hagale <br> is <br> kilc <br> laga <br> man <br> not <br> othel <br> pert <br> chan <br> rehit <br> suhil <br> tac－ <br> －hur <br> helach <br> hu <br> zin | asc <br> bira <br> che <br> dhron <br> eth <br> fec <br> gibu <br> agalc <br> his <br> kilc <br> lac <br> mam <br> not <br> otil <br> perc <br> chon <br> rehit <br> sugil <br> tac <br> hur <br> helac <br> hyri <br> ziu | asc <br> bira <br> che <br> dhron <br> eth <br> fec <br> gibu <br> agale <br> his <br> kile <br> lac <br> mam <br> not <br> otil <br> perc <br> chon <br> rehit <br> sugil <br> tac <br> hur <br> helac <br> hyri <br> ziu | asc <br> bira <br> cen <br> drom <br> ech <br> fech <br> gibu <br> hegl <br> is <br> kale <br> lagu <br> man <br> not <br> otil <br> perc <br> qhon <br> rehit <br> sigil <br> tac <br> ur <br> xelach <br> yri <br> ziu |

## We can now discuss the runic material in detail ( I )

$a$ : There can be no doubt that the alphabetizer chose $æ$ to fill this place. It is usually well preserved. In B, however, it has been distorted beyond recognition, becoming practically like a Roman $P$ in versions $P$ and $S$, and like $R$ in $T$. The name asc was adapted to German asc, mistaken for ase in ro10 W, and for aso in Ba; 176r has a unique further adaptation to asch, which agrees well with the late date of this manuscript (2).
$b$ : The rune itself is no problem; yet it appears with curious distortions in group B . In T one may still easily recognize it, but in $P$ and $S$ it has become a minuscule $e$. In $N$ it seems to be truncated at the top and below. The name must originally have been biric or birich. The form biric is an archaic OE. form corresponding to beorc, berc, cf. bircix Epinal gl. 792, biricean Bosworth-Toller, Suppl. 72, byric Napier Gll. $56,364 \mathrm{f}$. This biric appears in U and 254, but it is not possible to decide whether it was the form of the archetype, or whether final $h$ was dropped. The former is rather probable, considering that it must also be at the origin of the name bira in group B (bira $=$ misread biric, perhaps in the neighbourhood of open $a$ 's). The germanized form birich (176) was in turn misread as birith ( 1609 G H N 1010 W R) and this again as biriht (1761) and berith (Ba). In OHG. the word for 'birch' has a final $a$ : pircha, piricha, bircha. As a rule the adaptation seems to have been rather mechanical, so there is no need for assuming that a final $a$ was dropped, as von Grienberger supposes.
$c$ : The rune is probably ON. $\mathbf{k}$ (on the name cf. infra $q$ ); formally it offered little difficulty. Somewhat fanciful forms appear in 176x R U 254. The name is obviously derived from OE. cen, the initial of which has become an OHG. aspirate. The name may have been understood as OHG. chen, chien 'torch '. The OE. form was restored
(1) Cf. T. von Griknarager, Die angelsächsischen runenreihen, 25 ff.
(2) W. Braune, Althochdeutsche Grammatik, $§ \times 46$.
in T (cf. infra). U stands apart in having the same name for $c$ and $q$ : chon. In the first case it may be a mistake for chen. The scribes of $P$ and $S$ seem not to have dared expand the abbreviation in their exemplars (cf. $d$ and $m$ ).
$d$ : Formally the rune is an English d. It is mostly not distinct in form from $m(=m)$; in $U$, however, we find a very pure type of $d$, but that may have been borrowed from the fupore in the same manuscript. In 176 there occurs a form which is either the right hand half of a d, or apturned to the left. The same form is found in the rune riddle which precedes the alphabet. The former explanation is probably right, as there are no traces in the other versions of a $\mathbf{p}$ having taken the place of $d$. The name is that of the English $\mathbf{p}$ : Born or thorn. The latter is the form we find in 1609 1761 G H; thron in $\mathrm{A}_{2}$ and R must be due to a misreading, which was then further distorted to become throm in 254. This form with final -m is probably due to the misinterpretation of an abbreviated name of the exemplar ( $o$ with a stroke above it); the same explanation goes for drom in T. The forms with initial $d$; may be explained in one of two ways: either thorn was made to conform to the acrostic principle; or else $d h$ points to a region where the sound $p$ became $d h$ (at least in spelling), i. e. some parts of the Franconian area (r). The explanation need not be the same in all cases. Thus the acrostic principle is probably behind drom in T and dhron in Ba (two versions where it plays a part in other cases as well), but not necessarily behind dhorn in U, which comes from a region where the spelling $d h$ may have been used.
$e$ : The form of the $e$-rune is quite stable (its resemblance to Roman M may have helped in preserving it); only Ba has a decadent form. The name ech is a transparent adaptation of OE. eh, which may occasionally have been spelled so in England too (2). It hass been misspelled in various ways :
(1) W. Braune, Althochdeutsche Grammatik, § 167.
(z) E. Sivvers - K. Brunnsr, Altenglische Grammatik, $\S 223$ A. 1 .
eth in $P$ and S (but not in T ), ehc in N , and, deriving from the latter, ehe in noso W and eho in 176 r
$f:$ Formally this rune too has been well preserved, except in $P$ and $S$. In $R$ it has received a spurious additional stroke. The name must at first have been fech, cf. OE. feh. It became fehc in three versions ( 1761 ro10 W ) and lost its final $h$ in two (P S).
$g$ : The rune which takes the place of $g$ is enigmatic. It does not occur in any other runic alphabet and seems to be unparalleled in inscriptions, unless it were a simplified form of $\overline{\mathbf{g}}$. The problem is complicated by the fact that the next rune is formally identical with $g$, whilst that for $k$ reminds one rather of $\bar{j}$. We are led to conclude that the alphabetizer was not able to distinguish the various gutturals which the OE. fuporc offered. If he really found a similar $g$ in his material, it may either have been a $\overline{\mathbf{g}}$ or a Norse $h$. But the latter solution again complicates. things, as a similar form (Norse $\mathbf{h}$ and English $\mathbf{j}$ are identical) takes the place of $k$. The former must consequently be preferred, although I admit that it remains somewhat doubtful (1). The name gibu is a transposition of OE. gefu, geofu, giefu into OHG. phonology (but -b- was not unknown in the oldest OE, texts). In three versions ( N roio W ) a spurious $l$ has been appended to the name. It may go back to a misunderstood detail in the archetype, cf. the next rune.
$h$; As was mentioned before, this rune is formally $g$. Unless it was accidentally mixed up with the preceding rune, we must assume that the alphabetizer picked his runes rather haphazardly (2). In a number of versions the rune shows a fanciful stylization, as if serifs had grown into short vertical strokes (cf. $k, x$ ). 'The name is the OHG. form
(x) We might also try to connect the special $g$ with the symabol for the prefix ga-, ka- used in a number of German manuscripts (cf. p. 389); but then we have again the difficulty that this symbol looks more like the $k$ of our alphabet than like $g$.
(2) A possible explanation for such mixing up is given on p. 377 .
corresponding to OE . hægl, hegl; the latter form has been restored in T. In most manuscripts the name hagal has an additional letter, $c$ or $e$. This anomaly is not found in the versions which add a spurious $l$ at the end of the name of the preceding rune (gibul). If the names in the archetype were arranged in a vertical column, a mark after those for $g$ and $h$ may have been interpreted as an additional letter either of the name of $g$ or of that of $h$. The form hagal in $U$ does not necessarily contradict this hypothesis : it may be related to that in the fupore which follows after the alphabet in that manuscript. The initial $h$ is missing in P and S . There is another way of explaining the additional letter in most versions : we could perhaps start from ON. hagall, the name of $h$ in ON. lists of rune-names (different from ON. hagl ' hail', which is the equivalent of OE. hægl, etc.). But this hagall is only found in late sources; in the earliest manuscript versions (Leyden MS. Voss. lat. Q. $8_{3}$, St. Gall MS. 878 ) the name is spelled with single $l$.
$i$ : The rune itself caused no difficulty for obvious reasons. The name has a spurious initial $h$ in most versions, but not in Ba and T , which uphold the acrostic principle as far as possible; nor in U, where the example of the isruna fuporc may have had some influence. This $h$ will also be found in other rune-names originally beginning with a vowel. Therefore one can hardly explain this $h$ as belonging to the preceding rune, the value of which it was meant to indicate; such an explanation could not apply to the other cases where this $h$ appears.
$k$ : This rune may be explained in several ways. It may be related to an English $\mathbf{j}$ or a Norse $h$ (cf. especially the forms in roro and W), but also to x in St. Gall MS. 878 . At first sight any of these may serve to explain our $k$, the more so since the name of the rune does not help to solve the problem. The fact that ea probably was the last rune of the underlying fuporc ( $\mathbf{p} .372$ ) seems to rule out $\bar{j}$; but there may well have been fuporcs where $j$ took the place of $j$. If there it had the name ger or gear, this may have given
rise to the value $k$ in High German territory. For another possibility see p. 377. The simplest form of the rune occurs in 1010 and $W$; elsewhere we find more sophisticated forms, mostly with the same sort of stylization as in $h$, i. e. with additional vertical strokes.
The name occurs nine times with initial $g$ : three times each gilch and glic, twice gilc and once gile. This can hardly be the original form : the acrostic principle requires an initial $k$ ( 1 ). von Grienberger was probably right in connecting the name with MHG. kil(i)ch 'chalice'. It is true that no OHG. forms are recorded with $i$ in the first syllable (2) (only $e: k e l i h$, etc.), but there seems to be no other possibility. This kilch would then simply be a translation of OE. calc 'chalice', i. e. the name of the rune k. In two instances we find forms which seem to go back directly to the OE. model. In T kale is probably a mistake for kalc, which form may have been reintroduced by the scholar who also changed hagal to hegl. In R kalc is not so easily accounted for, as there are no traces of old forms having been retained, nor of corrupt forms having been corrected (cf. birith, thron, laga, otil, reiht).
$l$ : As a rule the rune retains its original form, except in P and $S$, where it looks rather like a Greek $\lambda$. This may be an accidental change, of which intermediate stages are found in $R$ and $T$. In 1010 and $W$ it has received an additional loop to the left of the shaft, an affectation also found in the $g$ 's and $h$ 's of the same manuscripts. The name is OE. lagu, which appears as lago in U (in connexion with lago in the fuporc of that manuscript?). $\quad \mathrm{R}$ and Ba have laga, a mistake which may point to an exemplar with open $a$. P and S have lac. I fail to see what von Grienberger means by calling this form 'German' (the OHG. word corresponding to OE. lagu is lahha). I would rather connect it with fec in the same two manuscripts and explain it as a mistake. The scribe responsible for the exemplar
(I) On the use of $g$ for $k$ in OHG. cf. W. Bravne, Althochdeutsche Gram matik, § 143 A, 4.
(2) At least not in E. G. Greff's Sprachschatz IV, $3^{88}$.
of $\mathbf{P}$ and S had obviously little notion of the value of $h$
$m$ : The English $m$-rune has usually well retained its form. In $A_{2}$ it is followed by an obviously spurious vertical stroke, whilst in $B$ (or at least in $P$ and $T$ ) the right hand vertical shaft has been lengthened at the top (and in Ba downwards). The name should have caused little difficulty; yet $P$ and $S$ spell mam, which must be due to the misinterpretation of an abbreviated form $m \bar{a}$.
$n$ : In the cases where the form of the rune is clear, the oblique stroke slants down to the left, i. e. a type of $\mathbf{n}$ known from Old Norse inscriptions rather than from England. In a few cases ( B ; also $1609{ }^{1761 \text { ) it has changed to an indifferent }}$ X, whilst elsewhere the oblique stroke has become more or les scurved; the extreme forms evolved by this trend are found in the P-like shapes of N W Ba.
The name is the OHG. word not, the equivalent of OE. nead, nied, ned and ON. naudr. The forms noth in R and nod in U are dialectal variants (cf. nod in the isruna fupore of U ).
0 : The rune is the English o; it is well preserved in H R Ba . Elsewhere the lower broken line has been more or less fancifully elaborated. In $U$ it has become much like a capital R , in the B group rather like an $f$-rune (in P and S it is practically identical with the $f$-rune of those versions). The name is that of $\propto$, in the German form othil (OHG. odal, uodal is more common, but odhil is found in the OHG. Isidore). It has lost its $h$ in R and in group B; in Ba it appears as othel (cf. berith in the same manuscript).
$p$ : Here it is again the English rune which gave both form and name. The form was obviously unfamiliar, as we see from the malformations in $\mathrm{A}_{2}, \mathrm{Ba}$ and group B . In $\mathrm{A}_{2}$ the rune has received a spurious horizontal stroke, perhaps originally meant to mark that the two broken side-strokes should not meet. For the name we have to start from OE. peord, perd, perhaps written perth. The forms in our manuscripts go back to pert, cf. R Ba. Final $t$ often became $c$ ( $1609 \mathrm{GH} \mathrm{H}_{254}$ P S T), and this led to the extreme

OHG. form perch (1761 N 1010 W ). The latter could of course descend directly from perth, but that is less probable.
$q$ : The origin of this rune (if it is a rune) is obscure. It may be an ON. k turned to the left, or else a Greek колтта. The latter is found in most Greek alphabets of the De inventione tradition with the name cophe, cofe, cope, etc. and the definition nota numeri. The other possibility, however, should not be excluded. The name chon may be connected with kaun, the ON. name of $\mathbf{k}$, cf. caon in Munich MS. 14436, con in Oxford MS. St.John's College 17 and Cotton MS. Galba A 2, and chon in Munich MS. 276. von Grienberger considers such a connexion impossible because there are no other traces of ON. in fluence; but how are we to explain the $c$-rune and the name of $r$ without reference to such an influence? In view of the intermediate forms of the name found in other manuscripts, no doubt is possible; so we may also consider the Norse rune as the most likely model. The name appears as chan in R and Ba , and as qhon (i. e. with a correction for the sake of the acrostic) in T .
$r$ : The archetype must have had a somewhat cursive type of $r$ rather like those in 1761 G H 254 R Ba S. The stroke to the lower right was then developed into a horizontal (or nearly horizontal) stroke : $\mathrm{A}_{2}$ U P T. von Grienberger identified the name with OHG. reita 'currus, vereda', a translation of OE. rad. In the alphabet reita would have lost its suffix, and would have been spelled with the $h$ which is sometimes inserted between two vowels (1). The absence of final $-a$ is not explained by comparing rehit with biric $(h)$, as the latter is a direct adaptation of OE biric. Therefore I prefer to connect rehit with reidr, the ON. name of $\mathbf{r}$; cf. rechet in the Norse fupark of Munich MS. 276. von Grienberger's explanation of the intervocalic $h$ may be accepted, but it is not necessary to refer rehit to reita, as some of the names had obviously no meaning for the scribes who copied them (ech, fech, his, pert, etc.). The
(1) W. Brauns, Althochdeutsche Grammatik, § 152 A. 3 .
form rehit occurs in eight versions; a mistake is found in R (reiht); an additional $h$ appears in 1010 and W (rehith). In two manuscripts only fragments are legible ( U 176)
$s:$ The $s$-rune is the same in all versions, except in $G:$ there the upper vertical stroke is on the right hand instead of on the left. This variant may be accidental and need not go back to Goldast's exemplar. In a number of versions the rune has been interpreted in a fanciful way ( 1609 N , and especially group B). The name appears in four different but closely related forms : sugil (G U 254 P S), siugil ( N 1010 W), suhil ( 1761 H R 176 Ba ) and sigil ( T ). On account of the unanimity of the other versions, this last form will again have to be considered as due to a later corrector. Sugil and suigil are probably attempts to render OE. sygil, cf. the name of $y$. The form with intervocalic $h$ may be connected with the gradual disappearance of $g$ in that position ( I ).
$t$ : The rune is a well preserved t in ${ }^{176 \mathrm{r}} \mathrm{H}$ U 254 r 76 and T . In N ioro W it seems to have been interpreted as a sort of $A$, whilst one can hardly recognize it in R P S. The name tac is the OHG. equivalent of the OE. rune-name dxg, deg. In Ba it has coalesced with that of the following rune (tachur).
$u$ : We can easily recognize the form of the rune in most versions (though it may have been interpreted by the scribes as a sort of $n$ ). In 176 we find a shape rather like $c$ (i. e. ON. $\mathbf{k}$ ), in $\mathbf{P}$ and S an utterly decadent form (identical with Hebrew mem in most De inventione versions). The name has a spurious initial $h$ except in T, where it was probably dropped on account of the acrostic principle. On the situation in Ba cf. the preceding rune.
$x$ : In most alphabets the rune looks as if it were derived from an English $\mathbf{x}$ by the addition of two short vertical strokes below the upper ends of the side-strokes. Such a modification may have been necessitated by the use of a form
(土) W. Bruunk, Althochdeutsche Grammatik, $5 \times 49$ A. $5^{\text {a }}$.
which looked like a regular $\mathbf{x}$ for $y$, cf. infra. The new rune may occasionally have been interpreted as a capital $\mathbf{M}$ with an additional vertical stroke in the middle, e. g. in T. $G$ stands apart in having $z$ of the manuscript versions for $x$ and vice versa. Since there is no manuscript evidence to support this arrangement, we must suppose it came about accidentally. The name is probably a translation of OE. eolh, elh, *eluh, into OHG. In the latter the word is usually an $n$-stern : elaho, elho, helaho, acc. elahun, helahun (1). The form in the De inventione alphabet rather belongs to the strong declension which appears in MHG. and perhaps even in OHG. (2). The name of $x$ was probably at first elach. It received an initial $h$ as did other names beginning with a vowel (except in T, where the acrostic principle is upheld in xelach). A form without final $h$ is fairly common ( $\mathrm{A}_{2} \mathrm{P}$ S). G has halach and U heluch; the latter may perhaps point to an exemplar with open $a$.
$y$ : The rune is OE. x or ON. $\mathbf{R}$ (or $y$ ). The latter has usually sidestrokes which go downward; moreover it has the value $y$ only at a late date (3). Therefore the other explanation must be considered the more probable. The resemblance between $x$ and Roman $Y$ may well have played a part in this choice. In the manuscripts the lateral strokes are usually curved; they have become a full circle in 1761. Only 254 and $T$ have them straight. The name does not help to solve the origin of the rune, as $y r$ is the name of ON. R as well as of OE. $\mathbf{y}$. The vowel sound of the name obviously caused some trouble to German scribes : we find huyri (1761 G H), huiry (176), huyry (254), hyri $(\mathrm{PS})$; huuri in R is less appropriate, whilst hurn in $\mathrm{A}_{2}$ and horsi in U are no doubt mistakes. Ba has a fragmentary name $h u$, and T again conforms to the acrostic principle with $y r i$.
$z$ : For his last letter the alphabetizer chose ea, a solution (1) E. G. Graff, Sprachschatz I, 235.
(2) E. G. Graff l.c. also quotes a form elah; cf. M. Lexke, Mittelhochdeutsches Handkoorterbuch I, 538 .
(3) L. Jacobsen - E. Móltke, Runeindskrifter (Text), 980.
which we met before (isruna fuporc, Berne MS. 207). The form of the rune may be easily recognized in all versions. von Grienberger argues that ea was chosen for $z$ on accoun of the similarity of that rune with $t$, OE. $t$ becoming $z$ in the name (cf. infra). But in the isruna group and in Berne MS. 207, where the same rune is used for $z$, there is no trace of a shift $t>z$, so this can hardly have been the reason for which ea was selected. Moreover von Grien berger's explanation implies that the name of the rune had been attached to the rune ea before the Continental alphabetizer set to work. The same confusion is found in Cotton MS. Domitian A 9, but there it is due to scribe B There is no proof that such a confusion was ever made on the Continent. I rather believe that the alphabetizer chose ea for $z$ because it was the last rune, and the OHG. equivalent of OE. ti (also tir under ON. influence; in the oldest glossaries Tiig 'Mars, Martis') or ON. Tyr for the name of $z$ because it began with $z$. Therefore its coinciding with the ea-rune is purely accidental. The name is interesting because it is one of the few real translations (cf. asc, not). Although ziu is hardly known from other German sources ( I ), the alphabetizer must have had some notion of its meaning. The mistakes found in four versions are purely mechanical : zui ( $\mathrm{R}_{254}$ ), zia (U), zin (Ba).

## conclusion

We can now make the balance of this investigation. The bulk of the runic material is no doubt of English origin : the runes for $a d e m o p z$ and the names of $a b c d e f g k l m o p$ $s t x$ are English or go back to English models. In a number of other cases such an origin is at least possible : the runes for bflrstuxy and the names of $h$ in $u y z$. The Norse ingredients ate few, but their presence cannot be denied : the rune for $c$ and the names of $q$ and $r$ point to ON. models; the runes for $g i k n q$ and $u$ and the names of $h i n u y z$ may have a Northern origin. The proportion between the OE. and the
(i) E. G. Graff, Sprachschatz V, 578, knows of no other occurrence than in Ziestac 'Tuesday'.

ON. material is not at all what we should expect after having read the introductory text : that text does not even mention the existence of English runes. In fact the runic alphabet is a highly artificial construction, which was certainly never more than an object of scholarly discussion. Only about half of the runes have retained their original names. In four cases at least OE. runes have been combined with the names of other OE. runes: $\mathbf{d}+\mathbf{p}, \mathbf{o}+\boldsymbol{\infty}, \mathbf{t}+\mathbf{d}(t)$, ea $+\mathbf{t}(z)$. As far as the rune-names are to be trusted, we might conclude that the runic material came from the Anglian area (ech fech) and that it belonged to the eighth century (sugil). But the adaptation to OHG. phonology, which is far from uniform, makes it difficult to evaluate the evidence. The alphabetizer must have used a fupore with at least twenty-eight runes, since $\boldsymbol{x}$ and ea are found in his alphabet. We cannot decide for sure whether his fuporc extended any further: the answer to that question depends on the interpretation of the symbols for $g$ and $k$. Only if these were really to be identified with $\overline{\mathbf{g}}$ and $\mathbf{j}$, they would prove that the fuporc had reached its full development; but the choice of ea for $z$ rather indicates that ea was the last rune. The case of $g=\overline{\mathbf{g}}$ must remain doubtful, but in that of $k$ there is a simple solution : we have only to assume that in the fuporc the place of $\mathbf{j}$ was occupied by $\mathbf{j}$ (cf. p. 365). Perhaps the form of $g$ was invented ad hoc (for $k$ see also p. 377).
We saw that the adaptation to OHG. phonology was performed somewhat haphazardly. One wonders what a German may have understood by ech fech lagu pert chon rehit sugil uir. Therefore I can hardly believe that this alphabet is the result of a long years' study and of several attempts to germanize the English runes. It can hardly have been the compiler's purpose to reintroduce into Germany a system of writing expressly stated to be connected with paganism. I would rather assume that he had heard something about Norse (especially Danish) runes and wanted to treat them briefly in his work. For comparative purposes he needed an alphabet of twenty-three letters, whilst the Norse fuparks of his time had only sixteen runes. So he constructed an alphabet out of what material he had at his disposal. He may have known that his runes were not
precisely those used by the Nordmanni at that moment, but that was of minor importance : since all Germanic peoples were of Scandinavian origin, their native systems of writings might also be supposed so. We should not lose sight of the relative importance of these runes: they can hardly have had a greater value than Aethicus Ister's fantastic letters. They could perhaps be used as an ornamental script; at the best they may have been a help to missionaries. going to work among the pagans of the North. Nothing in the treatise indicates that the author hoped runic writing to be practised again in Germany. In teaching them he will rather have added a remark like that which the manuscripts of group B apply to Aethicus's letters : "... non ut illis imitemur scripturis nostris, sed ut sciremus industriam indagationis illius, qui illos adinvenit ".
It is also important to note that not one of the runic alphabets studied in Chapter III goes back to the same alphabetization, except some of the material in Munich MS. 14436. Therefore all reconstructions which draw arguments from those alphabets may be abandoned.: The runic alphabet of the De inventione tradition may be 'more German' than any other (although this is perhaps rather a subjective impression); yet this does not oblige us to consider ' less German' alphabets as representing intermediate stages, nor even justify such a way of reasoning. By considering each alphabetization by itself, we obtain a more varied picture, and one which is also closer to reality than the reconstructions referred to before.
Before we come to the problems of authorship, place of origin, etc., a few words must be said about the relationship between the different versions. In the discussion of the runes we found no fact which requires the stemma on P. 349 to be changed. A fuller examination of the treatise may perhaps lead to $R$ and Ba being more closely related; these two versions may perhaps come closer to type B than the other manuscripts of group A. We met nothing which might support the priority of type B: all points on which T proved superior are not in the much older versions of P and S . So it is far more likely that T was corrected with the help of English material, than that it should have retained those features from the original.

There can be no doubt that the treatise was first written in Germany : the forms of the rune-names are such as could only be due to a German scholar. On the other hand the extensive use of English material points to a centre with Anglo-Saxon influence; this is perhaps corroborated by the traces of insular script found in some manuscripts. The notae sancti Bonifatii probably point in the same direction(1). Some information on Norse runes and on conditions in the North must also have been available. But at the same time it is clear that the author can have had only second-hand information on runic matters.
Several arguments have been put forward in favour of Fulda as the place of origin. Hrabanus Maurus, the supposed author of the treatise, was teaching there about the time when the treatise is believed to have been written; Fulda showed an interest in Germanic matters, several OGmc. works (int. al. the Heliand) being credited to it; and, lastly, the paragraph on the runes is believed to be partly based on a passage of Tacitus's Germania, and that work was known in Fulda only. Impressive though these arguments may look, they do not stand a critical examination.
First of all, Fulda's monopoly in Germanic studies has become questionable since Drögereit has stressed the importance of Werden (2). The rune-names cannot be considered conclusive : they point to High German territory, but the evidence they provide is too vague to help us choose a location. Especially such artificial material as a set of rune-names made ad hoc should be used with caution. As to Hrabanus Maurus's authorship, not one of the manuscripts we examined supports this attribution. Goldast is our only authority, and we do not know what grounds he had for attributing the work to that scholar. Therefore that authorship is at the best a possibility; it can hardly serve to reconstruct the history of the treatise.
(1) W. Lrvison, England and the Continent, 290 ff.
(2) R. Dubcirrert, Sachsen und Angelsachsen. Niedersachsisches Jahrbuch für Landesgeschichte 21 (1949), 1-62.
ID. Werden und der Heliand. Studien sur Kulturgechichte der Abtei Werden und zurr Herkunft des Heliand. Essen, 1951 .
 in Niederdeutsches Jahrbuch 75 (x952), 142-147.

Alcuin's share is of course still less certain, and Bede may be forgotten altogether.
There remains only the use of the Germania to be considered seriously (cf. p. 358). Germania X describes the practice to which our texts would allude as follows :

Auspicia sortesque ut qui maxime observant. Sortium consuetudo simplex. Virgam frugiferae arbori decisam in surculos amputant eosque notis quibusdam discretos super candidam vestem temere ac fortuito spargunt. Mox, si publice consultetur, sacerdos civitatis, sin privatim, ipse pater familiae, precatus deos caelumque suspiciens ter singulos tullit, sublatos secundum impressam ante notam interpretatur. Si prohibuerunt, nulla de eadem re in eundem diem consultatio; sin permissum, auspiciorum adhuc fides exigitur.
I cannot find any close parallelism between this text and either version $\mathbf{A}$ or $\mathbf{B}$. It is not even sure that the notae referred to in the text were runes ( r$)$, but let us for a moment agree that this is the right interpretation. In the excerpt from Tacitus the words carmina, incantationes, divinationes do not occur. I believe, however, that there is another sort of texts from which these terms were borrowed : penitentials, canonical works, sermons, in a word, that immense literature which arose from the Church's war against heathen practices. To find parallels we have only to turn to Boudriot's collection of excerpts relating to Germanic paganism (2), e. g.
et si adhuc videtis aliquos ad fontes aut ad arbores vota reddere, et sicut jam dictum est, sortilegos etiam et divinos vel praecantatores inquirere, phylacteria etiam diabolica et characteres, aut herbas vel succos sibi aut suis appendere.... si quis presbyter aut clericus auguria vel divinationes aut somnia sive sortes seu phylacteria, id est scripturas observaverint, scilicet se canonum subjacere vindictis.
nam quicumque ad friguras non solum incantat, sed etiam
(1) A. Braxsted, Malluner, 50 f.
(z) W. Boudriox, Die altgermanische Religion in der amtlichen kirchlichen Literatur des Abendlandes vom 5. bis 7x. Yahrhundert (Untersuchungen zur allgemeinen Religionsgeschichte 2). Bonn, 1928, 62 ff. (esp. 62, 65, 66, 67).
scribit, qui angelorum vel salamonis aut caracteres suspendit aut lingua serpentis ad collum hominis suspendit, aut aliquid parvum cum incantatione bibit, non christianus, sed paganus est.
quicumque super sanctum simbulum et orationem dominicam carmina aut incantationes paganorum dicit, in animalibus mutis aut in hominibus incantat, et prodesse aliquid aut contra esse iudicat....
Carmina vel incantationes, quas diximus, haec sunt: ad fascinum, ad spalmum, etc.
To point out that no such practices are known from the Nordmanni mentioned in the text on the runes does not disprove my explanation. The author of the treatise knew that those who used runes were still heathen (at least according to version A). To describe their usage he simply relied on those pagan customs and beliefs which he knew from the official literature on the subject. He probably had no first hand knowledge of the Nordmanni and their religion, writing, etc.; otherwise he would certainly have been able to give us a ' more Norse' alphabet. There is consequently no reason for supposing that he relied on the Germania for his information, and so this argument in favour of Fulda must be dropped ( $\mathbf{I}$ ). One might still locate the treatise in Fulda if it could be proved that this abbey played a special part in missionary work among the Norsemen; but it is not certain that such was its purpose (2).
Thus far the criticism of the views on the origin of the treatise De inventione litterarum has been mainly negative. There is, however, a manuscript which might be considered as representing such a treatise in formation : St. Gall MS. 878. There we found precisely those extracts from Isidore which were incorporated into the text of the treatise; we also found an English fuporc, and a Norse fupark arranged into German doggerel. By referring to this last item we might even explain the curious
(1) The use of Aethicus Ister's Cosmographia offers no clue either, since that work must have found its way into a good many libraries at an early date (2) E. E. Stengel, Zur Frilhgeschichte der Reichsabtei Fulda. Zugleich ein Literaturbericht. Deutsches Archiv für Erforschung des Mittelatters 9 (1952), 513-534 (esp. 520)
$h$ - and $k$-runes of the De inventione runic alphabet. If the compiler mistook the rune coming after the name chaon for the $k$-symbol, and that following hagal for the $h$-rune, he would precisely have obtained the types we find in the alphabet: $h=X, k=*$. Yet I would not claim this collection of material as the source of our treatise. The strongest objection is, that the English rune-names are not found in the St. Gall manuscript. Two solutions seem then to be possible:
(a) St. Gall MS. 878 is descended from the same source(s) as were used for the treatise on the alphabets; as far as the runes are concerned, it has preserved the material unadulterated.
(b) The material provided by St. Gall MS. 878 was completed by a list of English rune-names (and also by extracts from Aethicus Ister's Cosmographia, and from canonical literature, etc.).
Which solution we have to adopt depends largely on the date of the treatise, or rather on the relation of the date of the runic material in St. Gall MS. 878 to that of the earliest De inventione manuscript, St. Gall MS. 876 . Strabo's death in 849 gives the terminus ante quem for the former codex; he may have begun it ca. 820 . The latter codex belonging to the beginning of the same century, solution (b) is not altogether impossible. But St. Gall MS. 876 contains a De inventione version which seems to be remioved several steps from the original. Therefore I feel inclined to adopt the first solution, although I admit that there are no really conclusive arguments in favour of one or the other. The comparison of the two St. Gall manuscripts has its importance for reconstructing the origin of the treatise, in that it makes a transmission Alcuin > Hrabanus > Strabo entirely improbable : Strabo's runic material is more genuine than that of Hrabanus (or that ascribed to the latter). If we had to base our judgment on the two St. Gall manuscripts, we should conclude that Hrabanus had his runes from Strabo. This shows again with how much caution such reconstructions should be attempted.
Since we no longer consider Hrabanus Maurus as the author,
the extreme dates proposed by Baesecke must be abandoned and the origin may be laid anywhere in the first third part, not to say the first half of the ninth century. Perhaps an investigation of the whole treatise would afford a safer basis for narrowing down this period; that I shall try in my critical edition of the treatise.

## APPENDIX.

1. Isidore of Sevilla, Etymologiae :
III. DE LITTERIS COMMVNIBVS. ... Litterae Latinae et Graecae ab Hebraeis videntur exortae. Apud illos enim prius dictum est aleph, deinde ex simili enuntiatione apud Graecos tractum est alpha, inde apud Latinos A. Translator enim ex simili sono alterius linguae litteram condidit, ut nosse possimus linguam Hebraicam omnium linguarum et litterarum esse matrem. Sed Hebraei viginti duo elementa litterarum secundum Veteris Testamenti libros utuntur; Graeci vero viginti quattuor. Latini enim inter utramque linguam progredientes viginti tria elementa habent. Hebraeorum litteras a Lege coepisse per Moysen : Syrorum autem et Chaldaeorum per Abraham. Vnde et cum Hebraeis et numero et sono concordant, solis characteribus discrepant. Aegyptiorum litteras Isis regina, Inachis filia, de Graecia veniens in Aegyptum, repperit et Aegyptiis tradidit ... Graecarum litterarum usum primi Phoenices invenerunt; unde et Lucanus $(3,220)$ :

Phoenices primi, famae si creditur, ausi
mansuram rudibus vocem signare figuris.
Hinc est quod et Phoeniceo colore librorum capita scribuntur, quia ab ipsis litterae initium habuerunt. Cadmus Agenoris filius Graecas litteras a Phoenice in Graeciam decem et septem primus attulit ; A. B. I. A. E. Z. I. K. A. M.N.O.II.P.C.T.Ф. His Palamedes Troiano bello tres adiecit $H . X . \Omega$. Post quem Simonides Melicus tres alias adiecit $\Psi$. E. ©. $Y$ litteram Pythagoras Samius ad exem-
plum vitae humanae primus formavit; cuius virgula subterior primam aetatem significat, quippe et quae adhuc se nec vitiis nec virtutibus dedit. Bivium autem, quod superest, ab adolescentia incipit : cuius dextra pars ardua est, sed ad beatam vitam tendens : sinistra facilior, sed ad labem interitumque deducens ... Omnes autem litterae apud Graecos et verba conponunt et numeros faciunt. Nam Alpha littera apud eos vocatur in numeris unum. Vbi autem scribunt Beta, vocatur duo; ubi scribunt Gamma vocatur in numeris ipsorum tres; ubi scribunt Delta, vocatur in numeris ipsorum quattuor; et sic omnes litterae apud eos numeros habent. Latini autem numeros ad litteras non conputant, sed sola verba componunt, excepto I et X littera, quae et figura crucem significat et in numero decem demonstrat.
IV. DE LITTERIS LATINIS. Latinas litteras Carmentis nympha prima Italis tradidit. Carmentis autem dicta, quia carminibus futura canebat. Ceterum proprie vocata [est] Nicostrate ... X littera usque ad Augusti tempus nondum apud Latinos erat, [et digne hoc tempore, quo Christi nomen innotuit, quod per eam, quae crucis signum figurat, scriptitatur,] sed pro ea C et S scribebant, unde et duplex vocatur, quia pro C et S ponitur, unde et ex eisdem litteris conpositum nomen habet. A Graecis [autem] duas litteras mutuavit Latinitas, $Y$ et $Z$, propter nomina scilicet Graeca, et haec apud Romanos usque ad Augusti tempus non scribebantur, sed pro Z duas S ponebant, ut ' hilarissat'; pro Y vero I scribebant. (Etymologiae I, iii, 4-7; 10-11; iv, $1 ;$ 14-15).
2. Some versions will be found to follow more closely the Commentum Einsidlense in Donati Artem maiorem:
Litterarum igitur diuersi repertores fuere. Primus namque Enoch septimus ab Adam litteras repperisse dicitur, unde in epistola Iudae legitur : sicut scripsit septimus ab Adam. Deinde Cham filius Noe praenoscens cataclysmum esse futurum fecit duas columnas, unam marmoream quae in aqua seruaretur, et alteram latericiam, quae in igne duraret, quibus septem artes liberales tradidit ut post diluuium
stoliditas hominum pelleretur et acumen ingenii exerceretur Postea Moyses alias repperit litteras in monte Sinai digito dei scriptas, quae usque ad tempora Hesdrae durauerunt, quibus nunc Samaritae utuntur. Deinde Hesdras inuenit alias leniores et faciliores ad scribendum, quibus Iudaei utuntur. Graecorum uero litteras Phoenices reppererunt, unde in initiis librorum Phoeniceo colore idest minio scribuntur litterae. Latinorum quoque litteras Carmentis nympha Nicostrata mater Euandri inuenit. Carmentis autem dicta, eo quod futura carminibus canebat; nympha dicitur quasi lympha, idest aqua, quia sicut aqua sapientia diffluebat. Nicostrata uero idest uictoriosa. Niкך enim Graece uictoria Latine, uel gladiata, eo quod ingenii acumine uigebat. ... Sicut media est Latina lingua inter Graecam et Hebraeam, sic medium tenet numerum in litteris. Graeci uero XXIIII, Latini XXIII, Hebraei XXII habent litteras. Inde XXII libros habent ex uetere testamento ( I ).
3. Another strikingly resembling version is found in Berne MS. 207 (the runes of which were discussed on p. 178 ff .), fol. $112{ }^{\mathrm{r}}$, INCIPIT DE LITTERA:
Genera litterarum diuersa sunt, quia (qui a) diuersis locis et auctoribus sunt inuentae. Nam ante diluuium Enoch inuenisse litteras credimus, quibus textum prophetiae suae illis temporibus ostendisse non dubium est testante epistola, quae catholica nominatur. Prophetauit autem : Ait septimus ab Adam Enoch dicens: "Ecce dominus ueniet" et reliqua, quae ibi scribuntur; per quas etiam studia sua in duabus columnis scribere post diluuium homines curauerunt; sed postea repperit litteras Cham filius Noe; deinde Abraham Syrorum et Chaldeorum litteras inuenit. Hebreorum litteras Moyses inuenit in monte Sinai, quibus et legem scribtam digito dei suscepit, sed non.illis litteris nunc utuntur Hebrei, utuntur autem eis litteris, quas inuenit Esdras propheta sub Zorobabel, filio Salathihelis. $\mathrm{Gr}(\mathrm{a})$ ecarum litterarum usum primi $\mathrm{F}(0)$ enices inuenerunt :

Cadmus (chatmus) Agenoris filius $\mathrm{Gr}(\mathrm{a})$ ecas litteras inuenit, non tamen omnes, sicut nunc sunt XX et IIII, sed aliquae postea additae sunt, de quibus dicendum est. Latinas litteras repperit Carmentis (carmentes) nimpha Nicostrata, mater Euandri ... (1).
4. The Ars grammatica of the Irishman Clemens also offers close parallels :
XXX. $\Delta$ Quis primus litteras ante diluvium invenit? M Enoch videlicet. hic enim ante diluvium nonnulla scripsisse fertur per easdem litteras, quas ipse invenit et quibus textum prophetiae suae illis temporibus ostendit testante Iuda apostolo in epistula sua : ' prophetavit autem ', ait, 'septimus ab Adam Enoch dicens: ' Ecce dominus veniet' et cetera. $\Delta$ Quid custodivit eas litteras in diluvio ne perirent? M In duabus etiam columnis erant scriptae. Iubal enim filius Lamech et socii eius, ne dilaberentur ab hominibus ea, quae ab eo inventa videbantur, aut ne deperirent, antequam venirent ad notitiam, duas columnas testante Iosepho fecerunt et in ipsis ea quae invenerant conscripserunt, sed tamen illae litterae quo numero vel qua figura fuerunt scriptae scriptura minime memorat. post diluvium vero Cham filius Noe litteras invenisse fertur. deinde Abraham Syrorum et Chaldaeorum litteras invenit. Hebraeorum vero litteras digito domini in monte Sinai scriptas Moyses invenit quibus legem populo conscripsit. sed non illis nunc Hebraei utuntur litteris. Hesdras enim scriba legisque doctor post captam Hierusalem et restaurationem templi sub Zorobabel alias invenit litteras, quibus nunc utuntur Hebraei. Graecarum vero litterarum usum primi Phoenices invenerunt. deinde Cadmus Agenoris filius Graecas litteras a Phoenicia in Graeciam XVII primus attulit. sed ab aliis auctoribus aliae postea sunt additae, ut sint XX et quattuor. Hebraei enim XX duobus elementis litterarum secundum Veteris Testamenti libros utuntur, Graeci vero XXIIII. Latini autem inter utramque linguam progredientes XXIII elementa habent. Latinas
(1) H. Haben, Anecdota Helvetica, Xxiv.
autem litteras Carmentis nympha prima Italis tradidit. Carmentis autem dicta, quod carminibus futura canebat. Ceterum proprie vocata Nicostrata. sed intuendum est, quod Pompeio teste undecim tantum modo litterae inventae primitus apud Romanos fuerunt; postea tamen crevisse usque ad decem et septem, deinde usque ad viginti et tres idem prompte refert. sed ex his XXIII, ut praediximus, una aspirationis nota est $h$, una duplex $x$, duae supervacuae $\mathbf{k}$ et q duae Graecae y et $\mathbf{z}$ ( I ).
5. The paragraph devoted to Aethicus Ister's alphabet is drawn from the first and last lines of the Cosmographia: INCIPIT LIBER ETHICI, TRANSLATIO E PHILOSOPHICO EDITO[S] ORACVLO A HIERONIMO PRESBYTERO DILATVS EX COSMOCRAFIA ID EST MVNDI SCRIPTVRA. EDICTA AETHICI PHILOSOPHI COSMOGRAFI. cap. 1. Philosophorum scedulas sagaci indagatione investigans mihi laborem tantundem obposui ac hic de iniciis tanto studio indagare et altiora magnatimque [ h ]ac cursim tam astrologiam fastigiaque excellentia, quae necdum cerni quis non possit... cap. 113. SUOS CARACTERES LITTERARUM QUOS ADINVENIT, ITA DISTINXIT (then follows the alphabet). EXPLICIT LIBER AETHici philosophi CHOSMOGRAFI NATIONE SCHITICA NOBILE PROSAPIA PARENTUM. AB EO ENIM ETHICA PHILOSOPHIA A RELIQUIS SAPIENTIBUS ORIGINEM TRAXIT (2).
6. This is part of a list of 'inventors ' from Ghent MS. 92, fol. $I^{v}$ :
Caim filius Adam primus ciuitatem primam quam Effrem uocauit condidit. Tubal filius Caim musicam artem primus inuenit \& omnia eius instrumenta. Obal filius Lamech opera ferri ęris auri $\&$ argenti primus inuenit. Jonitus filius Noę primus astronomiam inuenit \& sydera cęli cog-
(x) J. Toukiern, Clementis ars grammatica. Philologus, Suppl. vol. XX fasc. III. Lipsiae, 1928,18 f.
(z) H. Wutrke, Die Kormographie des Istrier Aithikos, 1, 84
nouit. Abraham patriarcha primus Egyptiis quę sunt de astrologia tradidit. Ninus rex Niniuitarum filius Beli primum idolum (with Bel written above it) in Babylonia fundauit. Ysis regina Inachi filia Egyptiorum litteras repperit; hę sunt litterę : ...; \& Mercurius leges eis tradidit. Foronęus rex Grecis leges \& iudicia primus omnium regum instituit. Cicrops Atteniensibus primus leges dedit \& postea Solen iudicia tradidit. Cathmus Agenoris filius Grecis litteras a Phenice primus omnium attulit: ... Postea Palamides de Troiano bello reuersus Grecis tres litteras addidit : ... Moyses legis lator dux Hebreorum in regione Pharairoth eis leges tradidit : ... Hebreorum littere. Apollo \& Scolapius \& Ypocrates medicinę artis auctores extiterunt. Salomon rex primus templum Domino in Iherusalem ędificauit orbis anno IIIICLXX. Ligurcius Lacędemonis primus omnium iura studiosę confinxit. Romulus \& Numa Pompilius atque Postumius Romanis leges diuersis temporibus tradiderunt. Appius Claudius Genucius Veturius Julius Manilius Sulpicius Sextus atque Curatius leges \& iuditia Romanorum proferendo iudices extiterunt. Carmentis nympha Italis litteras Latinas prima tradidit, que sunt, etc.

## Chapter V

## NON-ALPHABETIC RUNICA MANUSCRIPTA

In the Introduction to the present study I distinguished five types of manuscript runes. All the material examined in the first four chapters belonged to the fifth category : fuporcs and runic alphabets. This last chapter is devoted to the other four varieties, viz.
(a) runes used as additional letters;
(b) runes substituted for their names;
(c) runes used as reference marks, quire marks, etc.;
(d) scribal signatures and notes, titles, short scribbles, etc. in runes.
At first sight the reader will be surprised to find such different types of runic usage discussed in one chapter, whereas four were needed to cover the one remaining type. There are, however; various reasons for which it is impossible to treat these four categories as exhaustively as the fuborcs and the alphabets.
Type (a), to begin with, is found in most OE. manuscripts (and manuscripts containing OE. material, e.g. glosses). To obtain a result of any value, one would have to excerpt dozens, not to say hundreds of manuscripts, and present the data thus obtained in the form of detailed statistics. From this enormous labour we could only expect to learn something on the use of two runes, $\mathbf{w}$ and $\mathbf{p}$. Therefore this undertaking, valuable though its results might be, could only be justified as part of some vaster project including the examination of so many manuscripts, e.g. a catalogue of all codices containing OE. material; or a detailed study of OE. spelling.
From what evidence is available, type (b) must be extremely rare; only two authors seem ever to have used it systematically; and even then its scope is restricted to a few runes. With (c);
the main difficulty will again be to collect the material. A systematic search with so limited an object will hardly ever be undertaken. The same applies to (d). Such usage appears only on close examination, and even if discovered it will often not be found mentioned in manuscript catalogues. To this last category belongs a wide range of runic writing, going from ornamental pages with carefully drawn symbols to hurried, hardly legible scribbles and meaningless preudo-runes. Here too the occurrences are so few that it is rarely possible to reconstruct the background of such runic writing.

Consequently this chapter should not be considered as a full collection of non-alphabetic runic material but only as a first rough map of this territory, to be completed as more information becomes available. The reader will see that this map does not present the same density of detail for all areas. The reason for this situation is obvious : I had to depend entirely on what material had been recorded. The discovery of such items depends largely on a very close scrutiny of all manuscripts, a scrutiny which omits no details as trifling or irrelevant. Studies of this sort are rare. As long as manuscripts are studied mainly for the texts they contain, or for their artistic value, the material which interests us here will be in danger of remaining unrecorded. Therefore I expect that new items will become known as the continuation of Lowe's Codices Latini Antiquiores is published (in the period covered by that first series, runica manuscripta must have been very rare). Works like B. Bischoff's study on the scriptoria of SE Germany are still more useful, because there the material is examined in its geographical and historical context. How much the present survey benefited from Bischoff's work will become evident in section (d); that section would no doubt have become much longer if a larger area had been studied equally exhaustively.

Since the material offered here is only fragmentary-for (a) I could give no more than a general appreciation-I have not tried to give full descriptions of the manuscripts. Such a restriction was unavoidable if a minimum of uniformity was to be maintained. Ten or twenty years from now it may become possible to give some of these matters a more adequate treatment.

In the Introduction it was said that no OE. manuscripts written with runes have come down to us, nor do they seem ever to have existed. Wanley was already aware of this fact (1). Occasionally we find whole words or parts of words spelled with runes; as a rule this usage falls under the heading ' cryptic writing', somewhat similar e.g. to the notae sancti Bonifatii (cf. the Riddles of the Exeter Book, p. 417 ff.).
The typological distinctions set up in the Introduction and repeated at the beginning of this chapter were intended in the first place to circumscribe the notion runica manuscripta. They may also serve as a framework for this chapter, although we must keep in mind that sharp limits cannot always be drawn. Nobody will, I think, doubt that the use of $\mathbf{w}$ and $\mathbf{p}$ in AngloSaxon script is a phenomenon quite distinct from e.g. the use of the rune $\mathbf{w}$ where we should expect its name, vynn, written in full. But when the $m$-rune is used systematically instead of the word mann, and equivalent to the abbreviation $\overline{\mathrm{m}}$ found elsewhere, we are coming closer to the ' additional letter' class. Similarly there are cases where one may hesitate between (a) and (d), perhaps also between (c) and (d). Several types may be found in one and the same manuscript. Thus the Exeter Book has
(a) $\mathbf{w}$ and $\mathbf{p}$ as extra letters throughout;
(b) runes written for their names in the poems Christ, fuliana, Ruin and Riddle 91;
(d) some words written in runes, e.g. in Riddle 75; In one case it is impossible to decide for sure which type is meant, namely in The Husband's Message ( (b) or (d))?
(a) RUNES as additional letters

In England the use of the runes $\mathbf{w}$ and $\boldsymbol{p}$ in forms more or less adapted to cursive writing is widespread. From most grammars one would get the impression that this usage is almost
(1) H. Wanley, Catalogus, Praefatio, (ii): "At Librorum Chartarumve a recepto Christianismo per Anglo-Saxones nunquam quicquam esse Runice scriptum, saltem jamjam scriptum superesse, tam certum est, quam quod certissimutn ".
general; but the real situation is more complicated (1). The rune $\mathbf{w}$ is first used as an additional letter in an uncial charter of 692 . By its side $u u, u$ and $v$ continue to be used, the last two especially in Northumbria. The Epinal glossary, e.g., has only ten instances of $\mathbf{w}$. The first dated text in which $\mathbf{p}$ appears is a charter of 8 II ; but in the Corpus glossary (first half of the eighth century) it is already used more often than $t$. It had a dangerous rival in $đ$, which had been derived from $d$ by means of a distinctive stroke. In many texts, e.g. the Lindisfarne Gospels, the Vespasian Psalter, the earliest West Saxon manuscripts of the Cura Pastoralis, $\bar{d}$ is the rule; $\mathbf{p}$ appears only rarely (esp. in the abbreviation $\hat{\beta}=p æ t$ ). The situation is in fact exactly the opposite of what we should expect : the frequency of the runes $\mathbf{w}$ and $\mathbf{p}$ increases in the course of time (at least during the OE. period), and on the whole it is lowest in the region where runic writing seemed to be most firmly established : Northumbria. This impression is corroborated by the appearance of runes on Anglo-Saxon coins : no runes are found on Northumbrian coins before the reign of Eanred ( $807-84 \mathrm{x}$ ). Mercia seems to have played an important part in popularizing runic writing for new purposes : there coins with runic inscriptions were minted before the end of the seventh century; there too runes appear in manuscripts at a very early date. But, as I mentioned before, no precise statistical data are available by which the history of this type of runic usage could be traced in detail. Yet such a history would be of interest not only to runologists, but also to students of Anglo-Saxon script and to philologists.
On the Continent this type of runic usage is very rare, and a certain indication of English influence. The fragmentary Hildebrandslied (2) has mostly w ( 27 instances), but also uu ( 5 times, before vowels) and $u$ ( 5 times between a consonant and a vowel, twice between w and a vowel). Baesecke assumes
(1) W. Krulur, Angelsächsiche Palaeographie, in f., 42 ff.
(1) W. Krilqr, $A n g e l s a ̈ c h s i s c h ~$
J. BLompibld, Runes, 184 fi.
(2) G. Bampsecke, Das Fildebrandied. Eine geschichtliche Einleitung für Laien, mit Lichtbildern der Handschrift, alt- und neuhochdeutschen Texten. , Halle, MCMXLV.
that $p$ was occasionnally written instead of $w$, the scribe having only a vague notion of the latter. There are in fact two cases where the form of the letter is rather like $p$, but in both a diacritic stroke over the letter shows that $\mathbf{w}$ was intended (x). Baesecke also records three occurrences of $\mathbf{p}$ for $w$ in his transliteration, but as far as I can judge from his facsimiles these characters hardly differ from the regular $\mathbf{w}$; at any rate the difference is too small to read $\mathbf{p}$ (so there are 30 instances of $\mathbf{w}$ in all). Instead of $\mathbf{p}$ the Hildebrandslied has $d$ (as far as the sound in question is distinguished from the corresponding stop). Since the origin of the manuscript containing this fragment is laid in Fulda, this use of the w-rune is easily accounted for; it is paralleled by the use of $\mathbb{d}, \boldsymbol{x}, \boldsymbol{\varepsilon}$ and other marks of English influence. The so-called Basler Rezepte, where w appears as well, are also found in a Fulda codex. A few more instances are recorded, but on the whole one may say that Continental scribes did not adopt runes as additional letters (2).
Only on one point did Continental scribes venture beyond the example set by their Anglo-Saxon teachers. There are a few cases where the OHG. prefix ga- or $k a$ - is rendered by a character identical with the English rune $\mathbf{j}$. In London MS. Brit. Mus. Arund. 393 it is found in some twelve instances (3); the best known examples are those in the Wessobrunn Prayer (Munich MS. 22053), where it appears not only in ga-fregin and ga-uuorahtos, but also in forgapi (4). At times the scribe
(1) In their Manuel de l'Allemand du Moyen Age. Paris, 1947, 300, A. Jouvgry and F. Mossk (who base their text on Steinmeyer's edition) mention four cases; actually there are only two, and both are in the first hand.
(2) W. Kexlkr, Angeluächrische Palaeographie, 12.
J. BLomprelo, Runes, 185 and note (1).
(3) E. Steinmbyer - E. Susvirs, Althochdeutsche Glossen II, 149, 16. 18 (note). $48.50 .53 .55 ; 150,5.9$ f. 17.25.38 ff.; IV, 496.
Wessobru Prayer Wessobrunn Prayer occurs on fils. EC-66T un C. von Kraus (München, 1922 ) Cf. also B. Bischorf, Schreibschulen I, 18 ff., and G. Barsecks's review in Cf. also B. Bischorf, Schreibschulen 1, Is f.,. and G. Babsecks's review in Grrhard Eis in his Altdeutsche Handschriften (München, 1951); his commen on the rune (p. 24) is misleading.
no longer understood this symbol, as in the gloss on fol. $63^{x}$ of the same manuscript :
poetica : * kazungali,
where the prefix is written out after the $\bar{j}(1)$. The character is usually explained as a ligature of $g$ and $i$; it would have indicated at first the OE. and OS. form of the prefix, gi-. OHG. scribes would then have adopted it for ga- or $k a$-, the form of the suffix in their language. Such a reconstruction is, however, unnecessary. There is no proof of this suffix having been used for gi -, and so the explanation as a ligature is questionable. I would rather connect it directly with the rune $\bar{j}$, which has the values $g$ and $k$ in runic alphabets.
All in all this use of runes was very short-lived on the Continent : the Hildebrandslied is dated $8 \mathrm{ro}-820$, the Wessobrunn codex ca. 814. The other instances also belong to the ninth century. Apart from Fulda, Augsburg may have witnessed this usage for a brief time (Wessobrunn codex); the London manuscript also originated in the South of Germany (2).

In England the use of $\mathbf{w}$ and $\mathbf{p}$ continued for centuries. The character $w$ was still fairly generally used in the twelfth century; $\mathbf{b}$ went out of use only in the Modern English period, till the fourteenth century it was quite frequent. These two letters were also borrowed by Norse scribes (3).
(b) Runes written for their names

As a first instance of this usage we have of course to examine the OE. Rune Poem, a brief account of which was given in Chapter I (p. 19 f.). There I also indicated why an edition of the whole poem could not be undertaken within the frame of this study. The following extract is sufficient to give an idea of the technique; the runes and their values and names have been examined in Chapter 1.
(1) E. Stbinmeybr - E. Sirvers, Althochdeutsche Glorren IV, 3ǐz, 7.
(1) E. StBinmbyik - E. Sigvers, Althochdeuts,
(2) B. Bischorf, Schreibschulen, 21 (footnote).
(2) B. BISCHOFF, Schreibschulen, 21 (footnote).
zur mitte des 13 . jahrhurderts. Halle (Saale), 1929, 8 ff ., 32 ff .
$f(=$ feoh ) byp frofur fira gehwylcum.
Sceal deah manna gehwylc miclun hyt dalan gif he wile for dribtne domes hleotan
$\mathbf{u}$ ( $=\mathrm{ur}$ ) byb anmod and oferhyrned,
felafrecne deor, feohtep mid hornum,
mare morstapa; pat is modig wuht.

anfeng ys yfyl, ungemetun repe
manna gehwylcun đe him mid resteđ, etc. (1).
It is not always clear what the poet meant by his circumlocutions. Thus the stanza on $0=o$ has been interpreted as referring to Woden (OE. *ös $<*_{\text {ans-' 'god'), but some scholars have }}$ equated os with Latin os 'mouth' (2). But one should not forget that the name was so essential a part of the rune, that it (or its meaning) could not be changed arbitrarily.
The most famous examples of this usage are Cynewulf's runic signatures. All we know about Cynewulf is contained in the autobiographical passages of four poems. From internal evidence he is usually supposed to have written in the latter half of the eighth century, and to have lived in Mercia or Northumbria; but more recently arguments in favour of a date in the ninth century have been put forward (3). In the autobiographical passages Cynewulf indicates his name by representing each letter in it by a rune, the name of which is at the same time a word in the text of his poem ( $\mathrm{C}=\mathrm{c}=c y n n$, etc.). Two of these signatures are found in the Vercelli Book, i. e. Vercelli MS. CXVII, written in England in the latter part of
(I) E. V. K. Dobir, The Anglo-Saxon Minor Poems, 28. "Wealth (f) is a joy for every man. Yet everybody should distribute it freely, if he wants to obtain it by the Lord's judgment.
The bison (u) is very fierce and has big horns; a very dangerous animal, A thon (b) is very sharp. Touching it is painful to all men, extremely hurtful o everybody who rests against it ". (2) This explanation was first proposed by J. M. Krmble, On Anglo-Saxon Runes, 340 ; it was adopted by B. Dickins and W. Keller, cf. E. V. K. Dobbie, The Anglo-Saxon Minor Poems, 154
(3). K. Sxanm, Cynevulf, 304 ff .
the tenth century (1). This manuscript contains the poems Fates of the Apostles and Elene by Cynewulf, four other poems (Andreas, Soul and Body I, Homiletic Fragment I, and Dream of the Rood), a series of twenty-two Old English homilies and a prose life of St. Guthlac. The runic signatures are found on fols. $54^{\mathrm{r}}$ (Fates of the Apostles) and $133^{\mathrm{r}}$ (Elene). The former page has unfortunately suffered much from blotting : part of the text and most of the runes have become illegible. G. P. Krapp reconstructed the text as follows (doubtful or illegible runes are between brackets) : (2)

Her mag findan forepances gleaw,
se đe hine lysteđ leođgiddunga
hwa pas fitte fegde. $f$. par on ende standep,
eorlas pæs on eordan brucap. Ne moton hie awa ætsomne, woruldwunigende; (w). sceal gedreosan,
.u. on eđle, æfter tohreosan
læne lices fratewa, efne swa .1. toglideđ.
Ponne (c) ond ( $\mathbf{y}$ ). craftes neosad
nihtes nearowe, on him ( $n$ ) ligeđ,
cyninges peodom. Nu đu cunnon miht
hwa on pam wordum waes werum oncyđig.
(Fates of the Apostles 96-106) (3)
(1) M. Forkstrr, Il Codice Vercellese, con Omelic e Poesie in Lingua Anglo sassone. Roma, 1913 (facsimile edition).
M. Forster ( $=\mathrm{Id}$.), Der Vercelli-Codex CXVII nebst Abdruck einiger altenglischer Homilien der Handschrift. In : Studien sur englischen Philologie I $\Rightarrow$ Festschrift für L. Morsbach ... Redigiert von F. Holthnusbe und H. Spriss Halle, 1913, 20-179.
. G. P. Kine Vercelli Book.
(2) G. P. Krapp, The Vercelli Book, 53 f., 123 f.
(3) G. P. Krapp, The Vercelli Book, 53 f.
"Here can theman, shrewd in perception, whodelights in songs, discover who wrought this measure. Wealth (F) comes at the end; earls enjoy it on earth they may not always remain together, dwelling in the world; Our (U) Pleasure (W) on earth shall pass away; the fleeting adormments of the flesh shall afterwards perish, even as Water (L) glides away. Then shall the Bold Warrior (C) and the Wretched One (Y) crave help in the anguish of the night; Constraint $(\mathrm{N})$ lies upon them, the service of the king. Now mayest thou know who has been made manifest to men in these words" (R. K. Gordon, Anglo-Saxon Poetry, 199).

The passage from Elene offers no such difficulties:
A was secg ođ dæt
cnyssed cearwelmum, c. drusende, peah he in medohealle madmas pege, aplede gold. y. gnornode .n. gefera, nearusorge dreah,
enge rune, pær him .e. fore milpađas mæt, modig prægde wirum gewlenced. w. is geswidrad gomen xfter gearum, geogođ is gecyrred, ald onmedla. u. wes geara geogothades glæm. Nu synt geardagas æfter fyrstmearce forđ gewitene, lifwynne geliden, swa .1. toglided, flodas gefysde .f. æghwam bid læne under lyfte; landes frætwe gewitap under , wolcnum winde geliccost ..
(Elene 1256-1271) (1)

- The runes of the signatures in the Vercelli Book are on the whole well made. In that of Elene only 1 is somewhat conspicuous : its lateral stroke is almost horizontal. The scribe took evident care to copy the runes as faithfully as possible. Before $w$ and 1 there are traces of similar runes having been erased, probably because they were judged unsatisfactory. In the signature of Fates of the Apostles only three runes can be made out now ( $f \mathfrak{u}$ ); here again the stroke of 1 is horizontal. The text of the signatures is quite straightforward and the inter-
(1) G. P. Krapp, The Vercelli Book, 100 f.
(i) G. P. Krapp, The Vercelli Book, 100 f . "Always till then (he man had been beaten then theng herceived (treasures in the mead-hall, apple-shaped gold. He bemoaned the Evil ( Y ), he, the comrade of Sorrow ( N ); he suffered distress, cruel secret thoughts, though for him the Horse (E) measured the mile-paths, proudly ran, decked with adornments. Joy (W) lessened, and pleasure, as the years pass; youth has departed and the pride of old. The splendour of youth was once Ours (U). Now in due time the old days have gone, the joys of life have fled, even as Water ( $L$ ) glides away, the moving floods. Wealth ( $F$ ) is fleeting for all men under heaven; the adomments of the earth vanish under the clouds like the wind ..." (R. K. Gordon, Anglo-Saxon Poetry, 259).
pretation of the runes and their names offers little difficulty. It was of course not always easy to make acceptable poetry with such heteroclitic words as the rune-names were. In a number of cases Cynewulf is supposed to have substituted homonyms for the actual rune-names ( 1 ): thus in the two passages just quoted the name of $u, u r$, would have to be understood as the possessive 'our' and not as 'aurochs', the actual meaning of the rune-name. Similarly the name of $c$, cen 'torch', would have become cene 'bold, brave'. We shall see that there are serious reasons for rejecting such interpretations.
The poems Christ and fuliana are found in Exeter MS. 3501, the famous Exeter Book, also written in the latter half of the tenth century; it is supposed to have originated in the West Country (Crediton ?) (2). Wanley knew it, and Hickes had facsimiles of most runic passages printed in his Thesaurus (runes are found in various other places of the manuscript). If we leave out of account the first seven folios, which originally belonged to MS. Ii.ii. in of Cambridge University Library, the codex consists wholly of an anthology of OE. poetry, the most extensive that has come down to us (some eight thousand lines). Cynewulf's runic signatures occur on fols. $19^{\mathrm{v}}$ (Christ) and $76^{\mathrm{r}}$ (fuliana). The former shows the same technique as the two quoted before :

Ponne .c. cwacađ, gehyređ cyning mađlan,
rodera ryhtend, sprecan repe word
pam pe him zer in worulde wace hyrdon,
pendan .y. ond n. ypast meahtan
frofre findan. Pær sceal forht monig
on pam wongstede werig bidan
hwat him æfter dædum deman wille
wrapra wita. Bip se .w. scæcen
eorpan fratwa. .u. wæs longe
( x ) Or at least to use them in other meanings as those recorded in the Rune Poem.
(2) The Exeter Book of Old English Poetry. With Introductory Chapters by R. W. Chambers, M. Förster, and R. Flower. London, 1933 (facsimile edition).
G. P. Krapp-E. V. K. Dobbir, The Exeter Book. .

1. flodum bilocen, lifwynna dal,
f. on foldan. Ponne fratwe sculon
byman on bæle ... (Christ 797-808)
This is the passage from fuliana:
Geomor hweorfeđ
c. y. ond .n. Cyning bip repe, sigora syllend, ponne synnum fah e. w. ond u. acle bidađ
hwat him zfter dædum deman wille lifes to leane .1. f. beofađ,
seomad sorgcearig. . (fuliana 703-709) (2).
In this last signature Cynewulf is supposed to have followed a different technique, for the runes do not seem to make sense if read by their names. Many scholars hold that the runes stand for words with the same initial as their names, but there is no agreement among them as to which words may have been meant (3), and there is a serious objection against this sort of interpretation : it may easily have missed the aim of these signatures. K. Sisam has given a good account of the implications of these signatures (4). Cynewulf wished to be remembered in the prayers of those who read his works or (this will
(1) G. P. Krapp-E. V. K. Dobbir, The Exeter Book, 25 -
"Then the Bold (C) shall tremble, he shall hear the King speak, the Sovereign of the skies utter stern words to those who before hearkened heedlessly to Him in the world, while Misery ( K ) and Distress ( $N$ ) could most easily find solace. There many a one accursed shall wis deeds. Gone is the Gladness (W) of earth's geuds. For long our Passession (U), our portion of life's pleasures, of earth's gauds. For long our Possession (U), our portion of life's pleasures, our Fortune (F) on earth, was overfle Gordon, Anglo-Saxon Poetry, 163). (2) G. P. Krapp-E. V. K. Dobite, The Exeter Book, x 33.
"Sadly will journey Cen, Yr and Ned; the King of Heaven, the Giver of Victory, will be stern when Eoh, Wyn and Ur, sin-stained and trembling, await what will be adjudged them according to their deeds, as the earning of life on earth. Lagu, Feoh shall stand and quake in misery " (K. Sisam, Cynewulf, 317).
(3) A survey of various solutions is given by G. P. Krapp and E. V. K. Dobsie in the notes to their edition of The Exeter Book (p. 287 f.). (4) K. Sisam, Cynewulf, 320 f.
usually have been the case) who listened to them being read or recited. We must suppose that in Cynewulf's time the runes and their names were still well known : an audience would immediately grasp that the rune-names pronounced by the reader stood in fact for runes, and that these runes spelled the poet's name. Without a listener's being able to solve the riddle, and thus being invited to fulfil the poet's request, the signatures make no sense. Therefore that in fuliana will have to be read as conservatively as possible, even at the expense of the meaning of the verse. This applies of course also to the other signatures.
The runes of the Exeter Book have on the whole a somewhat more decadent appearance than those of the Vercelli Book. In a passage to be mentioned later the scribe took $\mathbf{g}$ for a minuscule $x$; in another $u$ was so poorly made that all editors have read 1. In the signature of fuliana $\mathbf{c}$ looks practically like $\mathbf{u}$. One more detail is worth mentioning: the $l$-rune has a horizontal lateral stroke in Christ, and one almost so in fuliana; as we found the same in the Vercelli Book signatures, it may go back a long way. From the runes in Cynewulf's signatures no important chronological data can be derived: he knew the rune $\mathbf{y}$, but that had probably existed for quite a while before he wrote.
There are several other instances of the same use of runes in these two manuscripts. On fol. $99^{\text {v }}$ of the Vercelli Book (i. e. in Homily VIII) we find gefean $m$ meahte, where $m$ must be read man. In Elene there are two more occurrences of the rune $\mathbf{w}$, one on fol. $128^{\mathrm{v}}$ (1. 788 of the poem), one on $13^{\mathrm{I}}{ }^{\mathrm{v}}$ ( 1. 1089). In each case we have to read vyyn : weroda $\mathbf{w}=$ weroda wynn ' joy of hosts '; wuldres $\mathbf{w}=$ wuldres wynn ' joy of heaven ' ( I ).
In the Exeter Book the usage appears on fol. $124^{r}$ in the poem Ruin, and on fol. 129, in Riddle 91. This is the passage from Ruin (11. 21-24):

Beorht wæron burgraced; burnsele monige,
heah horngestreon, heresweg micel,
(1) G. P. Krapp, The Vercelli Book, 144, 147.
meodoheall monig .m. dreama full,
oppret pat onwende wyrd seo swipe ( r )
This $m$ must be read monn, first element of the compound monndreama ' of human joys'. In Riddle 91 (fol. 129v) we find a similar usage (ll. 3-7)

Oft ic begine pat me ongean sticad,
ponne ic hnitan sceal, hringum gyrded,
hearde wid heardum, hindan pyrel,
ford ascufan pat mines frean
mod .w. freopat middelnihtum (2).
Here w must be read $w y n n$; it is part of the compound modvynn 'that which rejoices the heart' $=$ 'treasure '. The answers to two or three Riddles are also supposed to have been marked with runes:
fol. $103^{\text {r }}$, at the end of Riddle $6(3)$, there is an $s$-rune. As the answer to this riddle is generally assumed to be ' sun ', we may conclude that the rune stands for its name sigel $=$ ' sun'. But in other cases such an explanation does not seem to work. On
fol. 102 v, at the end of Riddle 5 (4), there is also a rune s. But the solution of that riddle is 'shield'; therefore we must accept that this time $s$ stands for OE. scield 'shield'. Again, on
fol. 103 . ${ }^{r}$ some scholars believe to find a rune $c$ at the close of Riddle 7 (5). The solution of that riddle seems to
(I) G. P. Kpiapp-E. V. K. Dosbie, The Exeter Book, 228, 365.
"Bright were the castle-dwellings, many the bath-houses, lofty the host of pinnacles, great the tumult of men, many a mead-hall full of the joys of men, till Fate the mighty overturned that" (R. K. Gordon, Anglo-Saxon Poetry, 92).
(2) G. P. Krapp - E. V. K. Dobbib, The Exeter Book, 24x, 379.
"Often I gape at what is fixed opposite to me, when, girdled with rings, must needs thrust stoutly against the hard bolt; pierced from behind 1 muse hove forward that which guards the joy
(3) G.P. Krapp-E. V. K. Dobirs, The Exeter Book, 184, 325 .
(3) G.P. Krapp-E. V. K. Dobbis, The Exeter Book, 184, 325 .
(5) G.P. Krapp-E. V. K. Dobiri, The Exeter Book, 185, 325.
be 'swan'; the rune would then stand for Lat cygnus. But if we accept this explanation, there is no reason for not interpreting the two s-runes just mentioned as scutum (Riddle 5) and sol (Riddle 6) respectively. Moreover one should not forget that these runes are made very differently from those in the texts : they are hardly more than faint scribbles, whilst the other runes are drawn firmly, with heavy downstrokes. Similarly there is a scribble on fol. $105^{r}$ which most editors have interpreted as a rune $b$ with a rune 1 above it ( 1 ), and several runes are found in the margin of fol. $125^{r}$ ( $\mathbf{b u g r} \mathbf{~} \mathbf{~}$ ); but in neither of these instances do we have runic writing of the type discussed in this section. Still in the same manuscript, there is a doubtful instance on fol. $123^{v}$ in the poem The Husband's Message (ll. 49-53): Gecyre ic ætsomne .s. r. geador

## .ea.w. ond .m. ape benemnan

pat he pa wære ond pa winetreowe
be him lifgendum læstan wolde,
pe git on ærdagum oft gespræconn (2).
The last of these runes has exactly the same form as that in the poem Ruin and in Riddle 19 and must consequently be read as $\mathbf{m}$ (most editors read d). M. Förster (3) made an interesting observation on the arrangement of the runes in the Exeter Book : wherever a rune stands for its name, there is a dot before and after it; when a sequence of several runes is to be read in the same way, each pair of runes is also separated by a dot. On the other hand, when several runes are to be read as one word, i. e. only by their sound value, there is a dot before and after the whole group, but none between the runes. If we apply
(I) G. P. Krapp-E. V. K. Dobbir, The Exeter Book, 189,330 f.
(2) G.P. Krapp-E. V. K. Dobsig, The Exeter Book, 227, 363 f.
(2) G.P. Krapp-E. V.K. Dobsig, The Exeter Book, 227, 363 f.
"I put together S.R.EA. W. and D. to assure thee with an oath that he was there, and that he would perform, while he lived, the true faith of which you two often spoke in earlier days " (R. K. Gordon, Anglo-Saxon Poetry, go). (3) G. P. Krapp-E. V. K. Dobila, The Exeter Book; xxiii.
this finding to the above passage, we must read each rune by its name. Only one commentator has tried to give this solution to the puzzle, and he can hardly be said to have convinced everybody ( 1 ); and yet the solution must be sought in this direction, even if the meaning looks forced.
Other runes from the Exeter Book will be discussed on p. 417. It is worth noting here, however, that all runic bits point to a fuporc of twenty-eight runes; we meet the four extra runes $\mathbf{a x y e a}$, but neither $\overline{\mathrm{g}}, \mathbf{k}$ nor $\mathbf{j}$.
The rune $\propto$ is used several times for the word epel : three times in Beooroulf, once in Waldere and once in King Alfred's translation of Orosius. The Beowulf manuscript (2) (Cotton MS. Vitellius A 15), consisting of two parts joined by a seventeenth century binder, was written about the end of the tenth century. The runes occur on fols. $141^{\mathrm{v}}, 149^{\mathrm{v}}$ and $167^{\mathrm{r}}$; in the third the rune is part of the compound epelweard 'guardian of the native land, king ':

Pa hine on morgentid
on Heapo-Ræmes holm up ætbær;
đonon he gesohte swasne .oe.
leof his leodum, lond Brondinga ... (11. 518-521)
... swylce oft bemearn ærran malum
swidferhpes sid snotor ceorl monig,
se pe him bealwa to bote gelyfde,
Prt pret deodnes bearn gepeon scolde,
federæpelum onfon, folc gehealdan,
hord ond hleoburh, haleba rice,
.ce. Scyldinga. (11. 907-913)
Pat, la, mæg secgan se pe sođ ond riht
fremet on folce, feor eal gemon,
eald .ce. weard, pat đes eorl wære
(1) E. A. Kock, Interpretations and Emendations of Early English Texts. VIII. Anglia 45 ( 1921 ), $122: 8 \mathrm{~s}=$ sigelrad " the sun's road " $=$ " heaven"; Hearvoynn "earth's joy" = ean the the would keep, throughou Heaven, Earth, and Man, confirming by an oath that he would keep, throughout his life, the compact and the faith ", et
(2) F. Klasber, Beowulf, xev ff.
geboren beteral (11. 1700-1703) (1)
Of the poem Waldere, dealing with the legend of Walter of Aquitaine (better known from Ekkehart's Waltharius), only two fragments have come down to us (2). They are preserved in the Royal Library in Copenhagen under number Ny kgl. saml. 167b, and were written about the year 1000. At the end of the first fragment we read

Forsoc he đam swurde and đam syncfatum
beaga manigo; nu sceal beaga leas
hworfan from disse bilde, hlafurd secan
ealdne .ce. ođđe her ær swefan ... (ll. 28-31) (3).
H. Sweet edited the text of King Alfred's translation of the Historiarum adversum paganos libri VII by Paulus Orosius; the introduction to this edition was never published (4). It should have contained a full account of the almost contemporary Lauderdale (or Tollemache) manuscript, preserved at Helmingham Hall, Suffolk. In Book IV, Chapter iv of the translation (Sweet's ed. p. 168, 1. 11), the rune $\boldsymbol{\propto}$ is again used for the word epel:

Efter pæm hierdon Cartainenses pæt se mære Alexander
(1) F. Klakbrr, Beowulf, 20, 34, 63.
"Then in the morning the sea bore him to the land of the Heathoremes. Thence, dear to his people, he sought his loved country, the land of the Brondings ... So also many a wise man who trusted to him as a remedy for evils lamented in former times the valiant one's journey, that the prince's son was
destined to prosper, inherit his father's rank, rule over the people, the treasure and the prince's fortress, the kingdom of heroes, the land of the Scyldings ... Lo f he who achieves truth and right among the people may say that this earl was born excellent (the old ruler of the realm recalls all things from the past)" (R. K. Gondon, Anglo-Saxon Poetry, 14, 22, 39).
(2) F. Norman, Waldere. London (1933).
E. V. K. Dobsib, The Anglo-Saxon Minor Poems, xix ff.'
(3) F. Norman, Waldere, 39 (note: "A loop inside the rune. The scribe wrote part of an $e$ first ").
E. V. K. Dobsis, The Anglo-Saxion Minor Poems, 5, 139.
"he refused the sword and the treasures, the many rings; now must he needs depart from this battle bare of rings; the lord must seek his old domain; (4) H.Swert, King Alfred's Ororius I. (Early English Text S
(4) H. Swert, King Alfred's Oronus I. (Early English Text Society, Original Series, 79) London, MDCCCLXXXIII.
hæfde abrocen Tyrum pa burg, seo was on ærdagum heora ieldrena ©e, 7 ondredon bat he eac to him cuman wolde ( 1 ). In the other manuscript of this text (Cotton MS. Tiberius B I, saec. XI) the word is written in full (eđel). There is one more isolated example of $\mathbf{w}=z y n n n$, viz. in Psalm 99 of the Junius $P_{\text {salter, }}$ where w sumiap translates jubilate (i. e. wynsumiap) (2). In MS. B of the Poetical Dialogues of Solomon and Saturn (Cambridge MS. Corpus Christi College 41) the name Salomon is twice written Salom (headings preceding 11. 39 and 63, on p. 197 of the manuscript) (3). The scribe was not content to p. 197 of the manuscript) (3). The scribe was not content to
write only the $m$-rune; above it he made the horizontal abbrewrite only the $m$-rune, above mark which is sometimes written above the letter $m$ when it stands for man, mon. This proves that he was not fully aware of the ideographic value of the rune.

In all these cases the use of the rune is exceptional. In Beowulf e. g. the word epel occurs eleven times by itself or as part of a compound (not counting inflected forms such as eple); in three cases only the corresponding rune was written. It is hardly surprising that this use of the runes was not developed systematically. Most rune-names were low-frequency words; some were extremely rare (ur os cen eoh peor $\overline{\text { s }}$. Therefore they could hardly become a system of notae; only a few occurred so often that scribes could think of substituting runes for them in a more or less systematic way. Such a systematic use on a small scale is found in the Durham Collectar, also known as the Durham Ritual (4). Most of the Latin text was written in
(I) This passage translates "Post haec Carthaginienses, cum Tyrum urbem, auctorem originis sune, ab Alexandro Magno captam eversamque didicissent, timentes transitum ejus in Africam futurum.."
(z) H. Locraman, The Name of the Anglo-Saxon Rune $\rho$. The Academy 39 (1891), 284.
(3) R. J. Menner, The Poetical Dialogues of Solomon and Saturn. New York-London, MDCCCCXLI, esp. 82, 84 -
E. V. K. Dobbie, The Anglo-Saxon Minor Poems, 1 ff., 31 ff., 160 ff. (4) U. Linoklof-A. H. Thompson, Rituale Ecclesiae Dunelmensis. The
Durham Collectar. A Neiv and Revised edition of the Latin Text With the Durham Collectar. A New and Revised edition of the Latin Sexo CXL). Durham-London, 1927 . R. A. B. Mynors, Durham Coth Century. Oxford, 1939, 25, no. 14
the South of England; a small portion is due to a Northern scribe. Between the lines a Northumbrian gloss was added, apparently in the second half or toward the close of the tenth century. In this gloss the OE. words $d x g$ and monn occur very frequently. In most cases the scribe did not write them in full, but simply drew a $d$ or an $m$ instead ( $d: 2,2 ; 4,14 ; 5$, 10 (twice), 14, etc., in all 42 times; $\mathrm{m}: 13,13,15 ; 21,13$, etc. $=$ ro times) ( 1 ). Here we find a still greater degree of integration than in those cases where the rune (i.e. the rune-name for which it stood) was part of a compound : in the Durham Collectar we even come across $\mathbf{d e s}=d æ g e s$ or $\mathbf{d} e=d æ g e$. It is not impossible that this usage of runes for their names is found in other manuscripts as well, but instances are probably very rare.
(c) Runes Used as Refference Marks, etc.

Very little information seems to be available on this use of the runes. Some of the material in which occasional runes might turn up has hardly been studied, e.g. the reference marks which serve to indicate the connexion between a marginal gloss and its lemma (2). The insular glossator of Fulda MS. Codex Bonifatianus I, who worked in the eighth century, sometimes used runes for this purpose. The same usage is recorded from Munich MS. lat. 14179 (saec. IX1), where runes are used by the side of other symbols (3). In Munich MS. lat. 6291 (4), which we shall have to discuss more at length soon, the scribe Madalfrid marked the last four quires of the codex with the runes for $a b c d$ (fols. $217^{\mathrm{v}}, 225^{\mathrm{v}}, 233^{\mathrm{v}}, 24 \mathrm{I}^{\mathrm{v}}$ ). The first twenty-three quires of Munich MS. lat. 14561 , written in the South of Germany in the first part of the ninth century, were marked with the letters of the Latin alphabet; the last seven
(x) The figures indicate the pages and lines of the edition by U. Lindelor and A. H. Thompson (cf. preceding note).
(a) Prof. O. Homburger kindly called my attention to some Berne manuscripts using a rich variety of such symbols; among those I saw, however, 1 failed wo recognize runes.
(4) B. Beacery Schribcrulen 1, 235 and note (1).
(4) B. Bischoff, Schreibschuden I, 1 о f.; cf. p. 409.
quires were numbered with runes : a $202^{v}, b_{210}{ }^{v}, \mathrm{c}$ (? the rune has been curtailed, only a vertical stroke remains) 218 v , b $\mathbf{2 2 6 v}^{\mathbf{v}}$, e $23^{8 \mathrm{v}}, \mathbf{f} 24^{6 \mathrm{v}}, \mathrm{g} \mathbf{2 5 4}^{\mathrm{v}}(\mathrm{x})$. Of these runes b shows a somewhat peculiar form : the shaft is lengthened at the top and below (cf. that on the Britsum inscription) (2). None of the alphabets studied in Chapters III and IV shows the same choice of runes. The last alphabet in Exeter MS. 3507 and Cotton MS. Vitellius A 12 has a rather similar alphabetization, but a different type of $\mathbf{g}$. The rune for $d$ (i. e. $\mathbf{p}$ ) is also found three times at the beginning of a sentence on fol. $128^{\mathrm{v}}$ (a usage rather belonging to our last category). In Vienna MS. 1224 (the Cuthbert Gospels), finally, the ligature et and the rune for $a$ were used in numbering the quires (3). A thorough search may perhaps lead to the discovery of more instances of this usage.
(d) Runes in Scribal Signatures, Notes, etc.

The material of this last category is not easily classified. As a first variety we may consider signatures of scribes. The type meant here is in no way comparable with Cynewulf's signatures. As far as they contain any text, the signatures in this section are invariably written in Latin. This proves that the scribes considered the runes only as an ornamental, perhaps also as a cryptic alphabet. They probably used ready-made alphabets, and had little or no contact with runic tradition. At any rate I found no reason for supposing that such inscriptions were made on the basis of fuporcs. The earliest examples of runica manuscripta that have come down to us belong to this type.

London, British Museum, Harley MS. 1772 (4). This manuscript belonged to the Royal Library in Paris till 1707, when it was stolen; it was probably written in the NE of France (5).
(1) B. Bischorf, Schreibschulen I, 251 .
(2) H. Arntz - H. Zkiss, Runendenkmäler, 159 f
(2) H. ARNTZ - H. Zriss, Runendenkmäler, 159
(3) B. Bischoff, Schribschulen I, III note ( I .
(3) B. Bischorf, Schreibschilen I, MII note (I).
(4) Catalogue of the Harleian, Manuscrits II, 211 It.
(4) Catalogue of the Harleian Mamuscripts II, 211 IF.
Catalogue of Ancient Mamuscripts in the British Musum I, 38 .

Catalogue of Ancient Manucrnpts in the Britsh
(5) G. Miccris Lenluminure itandaise, 88 f.
J.F. KenNEk, Sources I, 659 says : "written probably in Northern England" but the runes should be sufficient to disprove this assumption.

It is usually dated in the late ninth century, but as far as I can judge it could almost be a century older. It contains the Pauline and the Catholic Epistles (except III fohn and $\mathcal{F} u d e$ ) and the Apocalypse (only as far as XIV, 16). The codex has been damaged by fire. On fol. 60, after six lines of introductory text to Romans, there is a large ornamental inscription in runes, alternately one line black and one red:

## MXENTUNMISNKK УIVИDIXИПЬDIKN.  NDEFNDSMANTINRM nNMMTHK

It may be transcribed as follows :
ejoiusueushac
siiNbijNusbiacoN
aNclibruMQueM
apopuspeculiare uolooffsco
By reconstructing the alphabet used in the inscription in this way :

## NBKDMF KNIabed of g h iki m"nopqritis

 we obtain the following reading (2) :EGO IUSUEUS HAC/SI INDIGNUS DIACON[US] / [H]ANC LIBRUM QUEM / AD OPUS PECULIARE / UOLO OFF[ERRE] S[AN]C[T]O
The alphabet used here is again different from any of those we have met before.

The first three runes are quite naturally $\mathbf{a} \mathbf{b} \mathbf{c}$ (in the last the lateral stroke transects the shaft). No. 4 probably goes back to $\mathbf{p}$, the triangle of which has been given the full height of the rune. The example of Roman D may have played a part. The next two runes are again the normal types, but that for $g$ is the English j, cf. $g$ in two alphabets of Exeter MS. 3507 and Cotton MS. Vitellius A 12; also in Phillipps MS. 3715, Arsenal MS. r169, etc. The symbol for $h$ has a fancy stepped cross stroke instead of two parallel strokes. For $i$ we find the usual type; $k$ does not occur. The form of $l$ points to a poor model rather than to an artistic development. The next rune is formally identical with the $x$ of some De inventione alphabets. If it has the same origin, it must have been chosen to take the place of $m$ on account of its resemblance to Roman M (cf. $d$ and $q$ ). The symbol for $n$ has nothing to do with the $n$-rune; it seems rather to be a Roman N turned upside down (or left right). It may eventually go back to some form of 3 , but this is only a guess. The runes for $o, p, r, s, t$ call for no comment; their peculiarities belong only to the realm of style. The choice of $q$, however, was again influenced by the Latin example. The rune $\boldsymbol{\alpha}$ was interpreted as a squarish type of $Q$, cf. $q$ in two alphabets of Exeter MS. 3507 and Cotton MS. Vitellius A 12, as well as in Phillipps MS. 3715. The points of contact
(1) The last three letters of the alphabet do not occur in the inscription. (z) J. M. Kemble, On Anglo-Saxon Runes, 366 and PI. XIX, fig. 21. In Cin Mer
with the group of the Exeter manuscript are rather striking, but they cannot be interpreted as indications of a direct relationship.
As to the interpretation of this signature, the main difficulty lies in the first line : Egoiusueushac/si indignus, etc. After ego we expect the name of the scribe or the donator. The next seven runes may perhaps be interpreted as Iuseuus = Yosephus; but does such a form exist? (1) Another tempting analysis would be iussu eius, but this hardly fits into the context. The author of the inscription was at any rate a poor Latinist, as appears from anc librum in 1.3 .
Valenciennes, Bibliothèque Départementale, MS. 59 (2). I came across the runes in this manuscript when looking through Mangeart's catalogue of the Valenciennes library. They are not mentioned in the index but a glance at the facsimiles is sufficient to recognize these firmly drawn characters. The codex formerly belonged to the Abbey of St. Amand (Elnone); it contains Jerome's comment on Jeremiah and his Ad Paulinum de studio Scripturarum. The scribe had a special liking for strange alphabets : he wrote part of the title with Greek letters; on fol. $28^{r}$ the words Deo gratias amen are spelled with Aethicus Ister's characters (but $r$ is a Greek P ). His signature on fol. $\mathrm{I}_{8} \mathrm{I}^{\mathrm{v}}$ is a regular display of cryptic systems. In the left top corner is a monogram which must probably be read HLOTTILD $I S$ ABBATISSA (3). The next two words are in the scribe's peculiar Greek: $\Phi Y H P Y$ SPAYNAOY $\Theta=$ fieri ordinavit. Then he writes his own name in runes : agambertus, after which he goes on in mixed Greek and Istrian, with an occasional rune (and K for I in gratias) : fecit Deo gratias semper Domine amen. The inscription is dated exactly by the text which
(1) One might feel tempted to compare it with iosewz on the cover of a (1) One might feel tempted to compare it with iosewz on the cover of a
Fulda codex now in Kassel; but in the latter inscription $w$ is used for $p$ on Fulda codex now in Kassel; but in the latter in
account of its formal resemblance to Roman $P$.
(2) J. Mangeart, Catalogue descriptif et raisonné des manuscrits de la Bibliothèque de Valenciennes. Paris-Valenciennes, 1860, MS. 52, p. 50 ff.
A. Molinirr, Catalogue géneral des mamuscrits des bibliothèques publiques de France. Defpartements. T. XVII:... Valenciennes. Paris, $1894,215 \mathrm{ff}$ (3) I wish to thank here my friend Dr. M. Gysseling, State Archivist in Ghent, for having kindly assisted me in deciphering this monogram.
follows next, the latter part of which is in notae sancti Bonifatii (July-August 806). Below, the scribe writes again AGAMBERTUS SCRIPSIT and the anagram SUTREBMAGA. One of the manuscripts of the Lex Salica also contains a signature with the same name Agambertus (but without runes). It was probably written in the North of France. But R. Buchner, who compared this manuscript with Mangeart's facsimile, holds an identity of the two impossible (1). In Berne MS. ri8 B. Bischoff discovered another signature of one Agambertus (2). This is not the place to examine the possible relationship between the three codices; yet I do not believe that Buchner's judgment must be considered as final.
Agambertus's runes are well made : they show not the least tendency towards cursivation. From his use of runic ligatures (' Binderunen ') one might conclude that he was well acquainted with runic practice : in his name $\boldsymbol{m}$ band er are written with common vertical strokes. But he uses the same device with his Greek characters (e. g. $H$ and $P$ in fieri), and this somewhat diminishes the value of this argument; after all, ligatures were a rather common device, e. g. in monograms.
Munich, Bayerische Staatsbibliothek, MSS. lat. 6250, 6272, 629r. Although the runica in these three manuscripts do not belong to the same type strictly speaking, they must be considered together because they use the same runic alphabet.
Munich MS. 6250 (3), which contains Isidore's Etymologiae, was written at Freising in the second quarter of the ninth century. Five scribes worked at it; the last of them, Cundpato, signed his name with runes on fol. $280^{\mathrm{r}}$. His signature reminds us rather of that in the Valenciennes manuscript :
EXPLICIT LIBER UIGESIMUS. $\mid \triangle \Omega$ IPA $A K A C$ AMFn $\Phi A X \Theta \Omega$ ФINH IAM / чVIHCXS чVIA AACCA/@VC HVX VHNI / cundpato m $\epsilon$ parte scripsit in primis. b.
i. e. Explicit liber uigesimus. Deo gratias amen.
(1) R. Bucankr, Kleine Untersuchungen su den frünkischen Stammesrechten I. Deutsches Archiv für Erforschung des Mittelalters 9 (x951), 59 ff. (esp. 68). (2) Prof. O. Homburger (Berne) kindly brought this signature to my notice. (3) B. Bischoff, Schrebbschulen I, 95 ff. Cf. also F. J. Lavtra, Das germanische Runen-Fudark, 9 f.

Facto fine iam quiesco quia lassatus huc veni. Cundpato me parte scripsit in primis
The first two lines were written by another hand. In the word gratias we find exactly the same peculiarity as in Agambertus's signature : K for I . In amen the third letter is rendered by its substitute according to the notae sancti Bonifatii; the last is an $n$-rune, but with the cross stroke slanting down to the left. In Cundpato's Greek the use of $V$ for $u$, and occasionally that of $H$ for $h$ are worth noting. The last line consists entirely of runes. Although they show some degree of adaptation to the style of such subscriptions-most characters being lengthened and a few made smaller so as to fit into the spaces between two characters-yet they retain their original forms to a remarkable degree. In one case a letter from another alphabet has crept in, viz. the uncial $e$ of $m e$; but Cundpato also knew the regular runic e, cf. parte. For $b$ and $p$ he uses very curious types. Instead of lateral triangles, these have closed X's. In the case of $b$ this form may be an ornamental development of the rune $b$ but then $p$ should rather be connected with $w$. For the latter there is, however, a far simpler explanation : it was inspired by Roman P, Cundpato's 'runes' $p$ and $b$ showing the same relationship as Roman $\mathbf{P}$ and $B$. The symbol for $b$ does not occur in the text of Cundpato's subscription, but has been written by itself to the upper right of the last word.

Munich MS. 6272 (I), containing Jerome's comment on Matthew, was written at Freising about the same time as the preceding manuscript, and partly at least by one of the scribes known from the other codex. On the inside of the front cover there is an inscription partly in runes, partly in Greek letters. The runic part may be transcribed as follows (plate VII b) : matheus in Kudea. maPcus Kn itaAia. lukas Kn acHaKa. ioHannes. in asia euuangeAim predicauit.
These runes are somewhat less skillfully made than Cundpato's, but the scribe obviously used the same alphabet. Most of the letters occurring here for the first time (i.e. those not in
(1) B. Bischofr, Schreibschulen 1, 97 ff. Cf. also F. J. Lauth, Dar geranische Runen-Fudark, 10.

Cundpato's signature) call for remarks. The character for $g$ is no doubt derived from the English $g$, but the upper and lower ends of the two strokes have been curved inwards; the result is rather like a figure 8 . For $h$ we find either a symbol identical with d (the cross strokes intersect instead of running parallel) or else a Roman H in which the cross stroke has been lengthened on both sides. This is also the form of H in the part written with Greek characters. For $i$ we find the normal type (runic or Roman I) but also a character shaped like K. We met this same character in the Greek parts of the inscriptions in Valenciennes MS. 59 and Munich MS. 6250. It may go back to the notae sancti Bonifatii. Instead of 1 we find a more or less cursive Greek $A$; instead of $\mathbf{r}$ Greek $P$ is used in one instance In the Greek part of the inscription $\mathbf{n}$ is found in Iohannem. It is also used in the Greek glosses elsewhere in the manuscript, e.g.
fol. $\quad 5^{8 \mathrm{r}}$ in foro siue $\operatorname{In} A N \Gamma \Omega P A(=\hat{e} v$ à $\gamma o \rho \hat{a})$

${ }_{1} 70^{\circ}$ KATA An@IfPACIn (=катà à àtíppaatv).
In this last example $f$ is also runic.
Munich MS. 6291 contains St. John Chrysostom's In Epistolam ad Hebraeos (r). It was written by six (or more?) scribes. The third of these, who was also responsible for the final quires of the manuscript, gave his name in a runic signature (2):
omnis labor finem habet premium eius non habet /
fenem madalfrid scripsit istam partem dō/gratias
Quod ego perfeci opus meum
The alphabet of this signature agrees with that used in the two preceding manuscripts, except on two or three points. For $h$ we find a Roman H, the two shafts of which are connected by a broken line (angle turned upwards). It may have been derived from the d-like $h$ used in Munich MS. 6272. In the case of $l$ Madalfrid uses the regular rune, not a Greek character. The
(1) B. Bischoff, Schreibschulen I, iro f.
(2) H. F. Massmann, Neue Runen, 28.
J. M. Kemble, On Anglo-Saxon Runes, 366, and PI. XVIII, fig. 20.
F. J. Lautry, Das germanische Runen-Fudark, 9.
J. B. Suvestre, Paleographie universelle IV, 87 ; Pl. 23 .

K-like variant for $i$ is not found here, but Madalfrid once writes an uncial $e$ instead of $i$. The character for $q$, which does not occur in the other inscriptions, is not of runic origin, but rather developed from the capitalis rustica $Q$ typical of Freising manuscripts (1). Finally we should recall here that Madalfrid also marked the last four quires of the manuscript with the runes for $a b c d$. The alphabet used in these three manuscripts presents the following characters:


The use of these runes seems to have been on the point of becoming a tradition in the Freising scriptorium. How did they happen to reach this centre of learning in the South of Germany? Since Bischoff's study of the Freising manuscripts the origin of that scriptorium is fairly well known (3). In its early period (i. e. the latter part of the eighth century) a scribe who calls himself Peregrinus, and who writes an Anglo-Saxon (Northumbrian) hand, seems to have played no mean part. We can of course not know for sure whether the runica mentioned above really go back to Peregrinus, but the possibility exists. The alphabet we reconstructed shows in fact no traces of an adaptation to High German phonology. What peculiarities we find are such as could easily spring up when direct contact with runic tradition had been lost, without any conscious adaptation to new sounds and values.
(I) B. Bischoff, Schreibschulen 1, 66. Perhaps the resemblance to the rune 0 played some part in the adoption of this form of $q$.
played some part in the adoption of this form of $q$.
(2) The last three lettera of the alphabet do not occur in the inscriptions.
(2) The last three lettera of the alphabet

Cf. G. Baesecke's review : A.f.d.A. 60 (1941), 14 f.

St. Gall, Stiftsbibliothek, MS. 127 ( I ). According to Bruckner this codex was written at St. Gall about A. D. 800 (2). It is made up of two manuscripts, the former containing Jerome's Commentary on Matthew, the latter his Commentary on Mark. At the end of the first part (p. 379) the scribe signed his name in runes (cf. plate VIII b):

## BRNX ※

Fig. 54

There can be little doubt that this is the signature of the scribe responsible for the first part of the codex : it is orderly written below the explicit and in the same very dark ink. It has usually been read Ratger, but all scholars who printed the name in this way prudently put a question mark after it. The interpretation of the signature is indeed somewhat doubtful. Transcribed according to the usual system, it gives an impossible reading : rædgğu. Only a comparison with Continental runic alphabets can help us to solve this puzzle. From the adaptations found in such alphabets we may conclude that the first three runes stand for rad or rat (cf. St. Gall MS. 270, Leyden MS. Voss. lat. 128). As to the fifth, which does not make sense with its English value, it probably has the same value as in Munich MSS. $1443^{6}$ and 19410. In the latter we found the name $c a(a) r$ (or: name car, value $a$ ); in the former $\bar{g}$ has the value $a$; its name is caar. The scribe of the St. Gall manuscript probably new an alphabet similar to those in the Munich codices, and his $\overline{\mathbf{g}}$ has the value $a$. The last rune is formally rather like $\mathfrak{u}$,

## (I) H. Hattemer, Denkmahle I, 410

G. Schrrrer, Verzeichniss, 46.

Stbingeyen E Sievers, Althochdeutsche Glassen IV, 44
A. Brucents Scriptoria II, 1,64 and PI. XXVIII.
(7) K. Lorfish, Die Sankt Galler Schreibschule in der ersten Hälfte des 9. Tahrhunderts, 31, characterizes the handwriting as Rhaetian; at any rate the manuscript belonged to the St. Gall library at an early date.
but a similar form stands for $r$ in the Britsum inscription ( $x$ ) and in the second alphabet of Vienna MS. 176r; it may also have played some part in the genesis of the curious $\mathbf{y}$-shaped $r$ of the Syriac alphabet in Munich MS. 14436. Thus we obtain the reading Ratgar, which is satisfactory from every point of view. This name was not unknown in St. Gall : a Ratgari(us) consecretari(us) is mentioned in charters of 820 , a Ratgari(us) camerari( $u s$ ) in one of 828 ; Ratger( $(u s)$ secretari( $u s)$ appears from 817 till 829 (2). There may be some connexion between our Ratgar and the Ratgar or Ratger of the charters.

One may ask whether the scribe used two different characters for $a$ (and $r$ ) on purpose, and if so, what was his purpose. Did he wish to mark a difference (in quantity ?) between the two a's ? Remembering the procedure followed by the scribe of Berne MS. 207, who used as many different characters for the same sound as he possibly could, I rather think Ratgar simply wanted to conceal his name the better by using two different characters for $a$; this would also explain why there are two different types of $r$.
Ratgar's signature may be of the greatest importance if one. wants to trace the origin of the alphabet type found in the two Munich manuscripts. If Bruckner's localization holds good, the St. Gall manuscript may indicate by what way those runes reached the South of Germany.
Munich, Hauptstaatsarchiv, Hochstift Freising, Lit. 3 a (3). On fol. $397^{\text {r }}$ of this first liber traditionum of Freising ends the record of a gift by Bishop Chunihoh, dated 850 . It is followed by an investiture ending in the words finit feliciter, and amen written in runes (amen). The $n$-rune of amen is followed at some distance by a character which looks very much like $\overline{\mathbf{g}}$.
(x) H. Arntz-H. Zaiss, Runendenkmäler, 160; cf. also the Dahmsdorf $\mathbf{r}$, ibid. 12.
(2) H. Wartmann, Urhundenbuch der Abtei St. Gallen. Zurich, 1861-r904. I, 213, 237, 240, 267, 276, 280, 283, 293, 302, 303 (nos. 223, 246, 249, 285, 298, 303, 306, 316, 327, 328).
(3) T. BrțTrasur, Die Traditionen des Hochstifts Freising. München, rgo5-1909. (Ouellen und Erörterungen zur Bayerischen und Deutschen Geschichte, Neue Folge, $4-5$ ), I, xvii f., 6 or.
B. Bischoff, Schreibschulen I, 122 f.

I fail to see what it can mean in this context, unless it stands for $a$ (as a variant for the $a$ of amen? Cf. Ratgar's signature). Then the scribe signed his text :

Quisquis titulum legat hunc mihi \& misereatur /
indigno precemque fundat rogitatue qui uocor alpunc./
ERCHANBERTUS. $\overline{\mathrm{ebs}}$ ualeas uigeasue felix.
Alpunc's runes are well made, especially those of amen. Those in the last line have been lengthened to match the tall, narrow letters of Erchanbertus; from the point of view of runic style they are less satisfactory. They raise few runological problems :


The $b$-rune is used with the value $p$ ( $\bar{p} \bar{s} \bar{s}=e p i s c o p u s)$, which may either be due to the influence of OHG. phonology ( I ), or else to some analogical influence of OHG. biscof 'bishop'. The character for $x$ is identical with the variant $\theta$-rune of the Franks casket inscription; it does not occur elsewhere, and has probably a different origin. It is most likely formed on the model of Roman X. The $i$ of uigeas begins straight but ends in a wavy line; I can see no explanation for this peculiarity, except a whim of the scribe.

Still in the same category I have to mention the signature of the scribe Ercanfrit in a Würzburg manuscript (2).
What we found in Munich MS. 6272 (cf. p. 408) was in fact
(I) W. Braunk, Althochdeutsche Grammatik, § $\times 36$; cf. also § 133 A. 3. (2) Edited by F. D. Grater : Inscriptio Runice Herbipolita, Runis Angloaxonicis concepta. Idunna und Hermode 1 ( 1812 ), 55.
(Cf. H. Arntz, Bibliographie, 6, no. 85; Arendt provided Gratrr with a "diplomatische Abzeichnung " of the inscription).
W. Grimm, Ueber deutsche Runen, 165 and PI. V.
I. M. Kemble, On Anglo-Saxan Runes, Plate XIX, fig. 22.
not a scribe's signature, but an inscription with cryptic (hardly with ornamental) purposes. A similar usage is found in Karlsruhe MS. Aug. 176, where a Latin riddle was spelled in runes (p. 324), and in Berne MS. 207, where runes (and pseudo-runes) were used for an ornamental title page (p. 182).
A sort of inscription which will easily escape notice is that of Kassel MS. Theol. F. 65, which contains Hegesippus in sixth century half-uncials, with corrections in Continental and insular cursives (r). The latter are supposed to be from St. Boniface's own hand, or at least from somebody of his surroundings. This lends special interest to the runic inscriptions scratched on the cover. That on the front cover must be transcribed as follows :

```
ioseww
i iosi(
iosew3
```

Lehmann proposed to read IOSEPI, and he is probably right in doing so. The rune $w$ could easily be interpreted as a Roman P. As to 3 , its name ih laid near its use as a variant for $i$, cf. Berne MS. 207. We do not find these peculiarities in any of the alphabets that have come down to us, but this is no reason for doubting Lehmann's reading : it is just one more indication of the extreme complexity of the history of runic alphabets.

In one group with these items we have to classify a very puzzling inscription in
Munich MS. lat. 13067. This codex was formerly in the possession of St. John's Monastery in Ratisbon. Its contente consist mainly of liturgical items (psalter, breviary, etc.). It is supposed to have been written at Hastiere, a dependency of the Abbey of Waulsort near Liegge; it is dated saec. XI/XII. The runic inscription was first mentioned by Lauth (2); C. Selmer
(1) P. Lehmann, Fuldaer Studien (1), 16, first edited this inscription: f. p. 270 ff
(z) F. J. Lauth, Das germanische Ruren-Fudark, 10 ff.
discussed it at length and tried to explain its peculiarities ( r ) On fol. $17^{v}$ there is a miniature of the Descent from the Cross Above the cross there are three inscriptions, one in Greek letters (preceded by $\mathrm{G}=$ graece), one in Roman ( $\mathrm{L}=$ latine), the third in runes ( $\mathrm{B}=$ barbarice). Hence the Hebrew (or Aramaic) is here represented by runes-obviously because the artist's knowledge of Hebrew did not allow him to give the text in that language, nor even in the characters of that language; for the so-called Greek inscription is only the Latin text Ihesus Nazarenus Rex Iudaeorum written with Greek characters. Therefore we may suppose that the runes spell the same nords. As a matter of fact the word divisions appear exactly at the points where we expect them; but the runes give a very different reading (the corresponding Latin to the right) :

| $\mathrm{f} \mathrm{g} \mathrm{d} \circ \mathrm{Y}$ (s) | IHESU(S) |
| :---: | :---: |
| jazandi (us) | NAZAREN(U |
| ndx.gyc | REX IUD |
| adinn | AEORU |
| i | M |

At the end of the first line the character looking like $Y$ is provided with a curved abbreviation mark which must probably be read as $s$; at the end of the next line it stands for us. The character which takes the place of $m$ in the last line looks rather like a capital $L$, but Selmer is probably right in explaining it as a somewhat fanciful rune $i$. For $u$ a capital $Y$ is used in the first line; elsewhere it is rendered by the rune $\eta$.
Selmer supposed that this inscription resulted from the use of a substitution key; there may be something in this idea, but I have some doubts about the complicated system of substitutions which Selmer had to set up to explain the inscription. He reconstructed the Vorlage with the help of various fuporcs and alphabets (some of which are mutually exclusive); he supposed that this Vorlage had twenty-eight runes (including variants for adefhim), that it had been written in lines of four characters each, and that in making the key one of those
(1) C. Selmer, The Runic Inscription of Codex Latimus Monacensis r3067. P. M. L. A. 53 (1938), 645-655

Io. Die Ruurenimschrift des CLM 13067. Wirkendes Wort 1 (1951), 140-144.
lines had been overlooked. Most of the values have in fact been shifted, but it is hardly necessary to adopt the involved evolution proposed by Selmer :

The runes:a--cd--gf--i il--no-gx-Z
are used for: $\mathrm{a}-\mathrm{-d} \mathrm{e}-\mathrm{-h} \mathrm{i}-\mathrm{m} \mathrm{mo}-\mathrm{rs}-\mathrm{ux}-\mathrm{z}$.
This looks rather like an attempt to construct an alphabet by using every single rune of the fuporc, the equivalents being added afterwards without reference to the actual values of the runes : so $\boldsymbol{x}$ may have become the symbol for $b, \mathbf{b}$ that for $c$, etc. Of course only an inscription using all twenty-three (or more) characters of the alphabet could give us certainty about the alphabetizing method followed here, and anomalies must be counted with. Thus the runes $g$ and $f$ may have been interchanged accidentally, in which case we have to read Hiesus instead of Ihesus. The rune $\mathbf{j}$ probably stood for $k$, cf. the De inventione alphabet. Selmer is obviously right in supposing that the scribe had no practical knowledge of the runes. Whether these runes reached Hastière through Irish intermediaries (Waulsort was a settlement of Scotti), as Selmer holds I dare not assert. At any rate I do not believe that they were responsible for bringing the Vorlage to the Continent : such alphabets were no doubt known on the Continent long before the dedication of Hastiere (1035). Similar shiftings of values are found in Arsenal MS. 1169 and in the Mandeville group, and the latter at least has some relations with the Liège region. On the analogy with these alphabets, I would rather conclude that the shift of the values in the Munich inscription arose accidentally.

Before proceeding to other inscriptions we must consider for a moment the change of status which the runes underwent in the Munich inscription. It is true that they are still marked $\mathrm{B}=$ barbarice; but on the other hand their use as pseudoHebrew reminds us of the 'Arabic ' and 'Syriac' in Munich MS. 14436 , and it anticipates the 'Saracen' alphabet in Mandeville's Travels. In a way they are even more remote from the runic model : only two runes have kept their original values.

The runes found in London MS. British Museum Royal $x 2$ D XVII are more puzzling., They are part of a charm wip lenctenadle 'against typhoid fever' ( I ). Various elements have been incorporated into the charm : the four Evangelists are prayed for intercession, Veronica is mentioned twice, and the whole ends in a line written with Greek characters. Lines 15 ff. in Storms's edition are as follows (I give my own transcription of the runes) :

Eft godcund gebed
In nomine dei summi sit benedictum
deerep. N7. PTX derFw N7. PTX.
Cockayne read this DEEREP HAND BIN DEREP HAND DIN " thine hand vexeth, thine hand vexeth"; Storms is probably right in considering this interpretation as rather doubtful. Although the manuscript is not late (saec. X ) the runes are so poorly made that the scribe can have had no notion of what he copied (2).

The only instances of a systematic use of runes we have still to examine are those in the Exeter Book riddles (cf. p. 394 ff.), and in the Poetical Dialogues of Solomon and Saturn. Riddle 19 (fol. 105 ${ }^{x}$ ) spells out the words which form the answer, but they are written in runes and, to complicate matters, these runes must be read backwards :

Ic on sipe seah . s r o
h. hygewloncne, heafodbeorhtne,
swiftne ofer salwong swipe pragan.
Hxfde him on hrycge hildeprype
.n o m. nægledne rad
a gew. Widlast ferede
rynestrong on rade rofne. co
foah. For was py beorhtre,
(I) G. Storns, Anglo-Saxon Magic. The Hague, 1948, 270 f. (no. 33). (z) Cockaxng's reading is accepted by J. H. G. Grattan and C. Sineer in their work Anglo-Saxon Magic and Medicine, 34, but without reference to STorms's opinion. They render lenctenadl by 'tertian fever'.

## swylcra sipfat. Saga hwæt ic hatte (1)

The answer : hors, mon, wega, haofoc, i. e. probably ' a man on horseback with a hawk on his fist'. The third group of runes is obscure. To solve the difficulty many scholars have supposed that rad in 1.5 stood for the rune $\mathbf{r}$, but that does not quite give a satisfactory reading (wegar = wiggar 'lance'?). The answer to Riddle 24 (fol. $106^{\mathrm{v}}$ ) may easily be found in the same way, the only difficulty being that the scribe substituted a minuscule $\boldsymbol{x}$ for the rune g :
... .x. mec nemnađ,
swylce . $\boldsymbol{x}$. ond .r. o. fullesteđ,
h. ond .i. Nu ic haten eom
swa pa siex stafas sweotule becnap. (ll. 7-10) (2).
Reading $\mathbf{g}$ for $x$ we obtain the word higoræ $=$ higore ' magpie ' or 'jay '.
The runes of Riddle 64 (fol. 125 ${ }^{\text {r }}$ ) are not so easily interpreted. They are marked with dots as if their names had to be read, and this is no doubt the only way of reading the riddle aloud. But it is hardly possible to solve the riddle by msans of these names; therefore most scholars complete each group so as to form words fitting into the context : wi $=$ wicg, be $=$ beorn, etc. (3); but cf. p. 396.

Ic seah . w. ond .i. ofer wong faran,
beran .b. e.; bæm wæs on sippe
hæbbendes hyht . h. ond . a.
swylce prypa dæl, .p.. ond. . e.
Gefeah . f. ond.æ. fleah ofer .ea
s. ond .p. sylfes pas folces (4)
(I) G. P. Krapp-E. V. K. Dobbie, The Exeter Book, 189 f., $33 x$ f.
"On a journey I saw a proud sroh with a shining head run very swiftly ver the plain On its ack it had a wrave nom, a nailed road agew (?). On a long joumey, travelling fast on the road, he carried a strong cofoah. The joumey was very fine the course of these Say what I am called "
(2) G. P. Kpapp-E. V. K. Dobsir, The Exeter Book, 193, 334 f.
"They call me $g$, also $x$ and $r$. O helps, and $h$ and $i$. Now $I$ am named as these six runes clearly signify"
(3) G.P. Krapp-E. V. K. Dobisis, The Exeter Book, 367 f.
(4) G.P. Krapp-E. V. K. Dobbis, The Exeter Book, 230.

Lastly, in Riddle 75 (fol. $127^{\text {r }}$ ), which may be no more than the beginning of a longer riddle, the solution is given in full :

> Ic swiftne geseah on swape feran
> .d $n u$ h. (I)

Thus far all scholars have read the third rune as 1. Actually the lateral stroke is a broken line, and the whole can only be a poorly made $u$. This gives the reading hund, which most scholars anyway obtained through emendation.
To understand the part played by the runes in these riddles, we have only to compare them with Riddle 36 (11. 3-7):

> Hæfde feowere fet under wombe
> ond ehtuwe
> monn. h. w. M. wiif. m.x.l.kf wf. hors. qxxs. ufon on hrycge;
> hæefde tu fibru ond twelf eagan
> ond siex heafdu. Saga hwæt hio wære (2).

The system used here to conceal the solution consists simply of notae sancti Bonifatii, but "It is evident that the scribe of the Exeter Book, probably through inexperience with this form of writing, has jumbled his text considerably. In .h.v.M. the $w$ was miswritten for $p$, and a second $p$ has been omitted after $M$; in .m.x.l.lkf.w. the $w$ is miswritten for $r$; the $f$ before hors has been written in the wrong place, and should follow hors. We have then the Latin words homo, mulier, and equus, corresponding to the A.S. monn, wuiit, and hors" (3). The function of the runes does not differ from that of these notae.
The first of the Poetical Dialogues of Solomon and Saturn treats mainly of the power of the Pater Noster (4). In one of the two manuscripts, Cambridge MS. Corpus Christi College 422 ( $=$ MS. A), the letters of the prayer are represented by runes. This codex was probably written in the late tenth century. It
(1) G.P. Kpapp-E. V. K. Dobing, The Exeter Book, 234, 37x.
(2) G. P. Krapp-E. V. K. Dobbir, The Exeter Book, 198
(4) R. J. Mendire, The Poetical Dialogues of Solomon and Saturn, 5 ft 80 ff
consists of two originally distinct volumes, the first of which contains the dialogues. The runes are found on pp. 4 and 5 . Their function seems to be purely ornamental. They are always followed by the corresponding Roman capital, and must be pronounced as the letters of the Latin alphabet, as appears from this line, where $f$ and $m$ alliterate with vocalic initials (ef, em):

Đonne hiene .f.F. and .m.M. utan ymbđringađ (1. 127 ).
These are the runes found in the poem :

1. $89: \mathbf{p} ; 93: \mathbf{a} ; 94: \mathbf{t} ; 95: \mathbf{e} ; \mathbf{8}: \mathbf{r} ; 111: \mathbf{s} ; \mathbf{n 8}: \mathbf{q u}$;

123:1 c; 127 : f m; 134 : $\mathbf{j}$ (equated to G$) ; 135$ : d.
In two cases we find only the Roman capital ( $\mathbf{1 0 6}: \mathrm{N}, \mathrm{r} 38: \mathrm{H}$ ); two letters have been skipped altogether ( $106: 0,123: 1$ ).
R. J. Menner, the latest editor of the poem, argues that the appearance of the runes "represents the last vestige of an ancient pagan Germanic tradition, according to which the runes themselves possessed magic power. The native superstition of the pagan English has been pressed into the service of Christianity, just as has the persistent Oriental tradition of King Solomon's power over demons" ( 1 ). I rather believe that the poet's notion of the runes was very vague-provided we may suppose that the runes were inserted by him. The fact that they must be read as Latin letters (and not by their names) and that they are always followed by the corresponding letters, is significant. Since they are not found in MS. B (Cambridge MS. Corpus Christi College 4I, cf. p. 401) and can actually be dispensed with, I am rather inclined to interpret them as ornamental, with at the most an archaic, pagan or cryptic, flavour (2).
(1) R. J. Menner, The Poetical Dialogues of Solomon and Saturn, 49.
(2) In his review of Menner's edition (Medium Mivum 13 (1944), 28-36), K. SisAM also concludes: "Clearly the runes in MS. A have nothing to do with the original poem. They were added beside the Roman capitals in one wes were forgotten or harmless, so that they had become mere literary curiosities" (p. 35).

Purely ornamental runes are also found in Basle MS. F. III 15c, a manuscript written in Fulda (saec. VIII) (1):
h : $43^{\mathrm{r}}$ hæc; $43^{\mathrm{V}}$ Choros; $44^{\mathrm{r}}$ hymnos, hilarius; $45^{\mathrm{r}}$ hic. a : $49^{\mathrm{r}}$ Natiuitate; $50^{\mathrm{r}}$ aMEN.
$\propto: 43^{\mathrm{r}}$ DœMino; $43^{\mathrm{v}} \propto$ RAtorium.
$t: 5^{r}$ IN ILLO tempore.
On fol. $5 \mathrm{I}^{\mathrm{V}}$ the rune $\boldsymbol{y}$ stands for $o$ : Mnses; on fol. $34^{\mathrm{v}}$ the word Noli is written with a st-rune for the first two letters. The scribe must have interpreted this rune as a ligature $\mathrm{N}+\boldsymbol{\infty}$, which we can easily understand if he took the $y$-rune for ce $(N+\mathfrak{y}=\mathbf{s t})$. For another instance of $\boldsymbol{\propto}$ and $\mathfrak{g}$ being mixed up, cf. Brussels MS. 9311-9319, p. 7 I.
Other brief runica are found in a number of manuscripts: Cotton MS. Otho $B$ 1o (cf. p. 19.): oldwaxfog.
Cambridge, Corpus Christi College, MS. 4r, p. 436 : a b c d; p. 448 : xii. 7. xxx swipor (? s looks rather like an insular $g$ ).
Cambridge, Corpus Christi College, MS. 326, at the top of the last leaf, in mixed runes and notae sancti Bonifatii : ? $\mathrm{s} t$ ?
 uifframno s(c)ripsit (2); I hardly believe this possible, although at one time the writing may have been less faint than it is now. On p. 105 there are more notae (ViVe VaLe FeLi[X] CuM CRiSTo aMeN).
(1) P. Lehmann, Fuldaer Studien (1), 15, refers to other Fulda manuscripts with runes : "Nichtige Spielereien sind die alten Einritzungen auf den Fuldaer Umschlagen nicht durchweg. Iah sah in Basel gelegentliche Zeichen, die ich the Fulda manuscripts now in Basle University Library, but all I found were the runes mentioned supra, and the use of w in the OHG. recipes in Basle MS. F. III I5a. As far as this last manuscript is concernerl, I have some doubts about Lehmann's reading of the scratched letters on the cover. On the front cover I read a\&bb=Aetbertus (rather than aykb=Aykbertus); instead of TOY-tuorum : tortuosum; and on the back cover saturnus rather than atumumus (cf. Legmann, o. c., 14).
(2) J. M.: Kemble, On Anglo-Saxon Runes, 366, read REdilfted scripsit; the reading given supra is that proposed by M. R. James (A Descriptive Catalogue of Manuscripts in the Litrary of Carpus Christi College. Carnbridge, 1909 ff., II, 143 fif).

St. Gall MS. 876 (cf. p. 290 ff.) : e? micikefrn(eb) $l m p ? l ?$ The values by which I transcribe are those given in De inventione alphabets. The inscription is probably based on such an alphabet; at any rate $k$ is a typical De inventione type. The whole does not seem to make sense.
St. Gall MS. 911, p. 290 : below a half effaced ih heb there are some characters, the second of which looks very much like the second $\mathbf{r}$ in Ratgar's signature; the next is $\mathbf{m}$ or $\mathbf{d}$, the fourth perhaps $\mathbf{s}$ (or some form of $q$ ), the last $\mathbf{n}$ (or $\mathbf{g}$ ?). A somewhat similar scribble with even more distorted forms has been added more to the right. Neither allows of a plausible interpretation.
Munich MS. lat. 373n, fol. $5^{\boldsymbol{v}}: \mathbf{m}$ ? t ? r (without connexion with the context?); fol. $7^{v}$ : in the margin by the side of a line with a blank space (quia quanto (blank) graviori tu/multu cogitationem carnalium praemimur) there is this inscription : maiorn. Perhaps the final $n$ is a slip for $i$, which would give a suitable maiori.
Munich MS. lat. 622g, fol. $135^{r}$ : uotoni( I ).
There are probably more, perhaps many more such runic inscriptions; their value, however, is very small, except in those cases where they can be connected with other items (e.g. St. Gall MS. 876 and the De inventione tradition), or where something is known about their background. Thus the runes of Munich MS. $373^{1}$ point to a close contact with Anglo-Saxon culture, which is even more evident from the handwriting (2). But mostly the ties between such scribbles and their environment are so loose, that one cannot come to interesting conclusions.

## Conclusion.

The first impression we gain from this chapter is no doubt this : although the first four chapters have given us some idea of the vastness of the material and of its variety, it can only
(1) B. Bischorf, Schreibschulen I, 72.
(a) B. Biscroff, Schreibschulen I, ro, considers this codex a Würzburg product
be a small fragment of the total which existed at one time or other. As soon as we are able to reconstruct the alphabet used in some of the inscriptions examined in section (d), we find evidence of alphabetizations not met thus far.
We also find that the usages listed here are as a rule more intimately connected with their environment than we could expect from what we experienced in the first four chapters. We know a few names of men who wrote runes ; Madalfrid, Alpunc, Cundpato, Ratgar : mostly scribes. Cynewulf belongs to a completely different tradition. On the other hand the isolated items listed at the end of section (d) have hardly any value. They offer too little material to teach us anything about the runes themselves; and on account of their isolation they are almost without value for the study of runic usage.
The third and last point I want to stress is this: only a fuller study of the material surveyed in Chapter V can lead to positive results. Unless more precise data on the frequency of runes in England, more runic inscriptions in Continental manuscripts, etc., are available, it will be impossible to give a really balanced account of runic writing at large.

## GENERAL ESTIMATE AND OUTLOOK.

As the reader may have gathered from the general discussion in the previous chapters, it was not, and could not be, my purpose to come to a final statement on the runica manuscripta. On the contrary, I eincerely hope that my study may call the attention of scholars to this somewhat neglected field, and may serve as a starting point for further work. I could think of no greater compensation for my work, than to witness new discoveries. Yet a few general results may be briefly outlined here.

First, the reader will have noticed the difference in the treatment of the material in Chapters II and IV as compared with that in I and III. In the former an attempt could be made to outline the background of the runic material and its history; in the latter we got a collection of isolated bits, mostly independ. ent, and which could not be fitted together into a general picture. It is tempting, indeed, to reduce this heteroclitic mass of material to a common denominator, to consider it as so many manifestations of one great movement. But here lurks a danger. Apart from Walahfrid Strabo, whose part in the transmission of runica manuscripta I accepted with some reserve, the names connected with it are not those of the great men of the age, men we can follow on their journeys through Western Europe and in their intellectual history. They were more obscure people, scribes such as Madalfrid, Alpunc, Cundpato, Agambertus, 'Iusueus'; one was perhaps a secretary of some importance: Ratgar. All the great names that have been mentioned before : Hrabanus Maurus, Alcuin, Bede-and why not Boniface? - cannot be proved to have taken an active part in the history of manuscript runes. I shall be the last to maintain that no such connexions may be discovered sooner or later; an inscription of a few runes may completely alter the picture I obtained. I would really have enjoyed to come to more positive results, to be able to amplify and complete those reached
by other scholars before me; destroying attractive reconstructions is poor sport. But I doubt whether such reconstructions on too weak foundations are of any use.

We have at least learnt something about the level the runes occupied in Mediaeval culture. Here we must make a distinction between England and the Continent. The material written in England has few ties with its surroundings. Loose leaves or, worse, facsimiles, can hardly provide clues as to the connexion of the runes with their environment. Perhaps this situation is not entirely accidental. In England the runes were originally not in the first place an object of learning, something that belonged to the classroom and the scriptorium. People knew them much in the same way as they knew the famous deeds of their legendary heroes. Runes were part of the intellectual pattern which existed in each member of a class or a community. They were learnt with the help of poems such as the Rune Poem. There was something natural about these characters; their use in Christian inscriptions and as additional letters is quite significant in this respect. They belonged to the culture of the royal hall; a poet could resort to them to remind an audience of his name. Their being fairly widely known may at least in part explain why they were so seldom written down for themselves. The people who read, or who were read to, were almost sure to know them. Only as time went on, and fewer people were familiar with these old characters, was there any sense in writing down fuporcs. Alphabets came still later : they indicate that prospective readers could no longer be supposed to know anything about the original runic system. This statement is not contradicted by the occurrence of a runic alphabet in a tenth century manuscript, as it goes back to a Continental model. The use in Solomon and Saturn, mainly for ornamental purposes, also belongs to a later period.

We have also noticed that, as far as the material goes, the dialect of the rune-names is rarely uniform. We often found a mixture of forms belonging apparently to different dialects, or to different ages, not unlike the language in which the bulk of OE . poetry has come down to us. At the time to which the
originals of our fuporcs belong, runic usage (if we may use this expression for this period) seems to have been fairly uniform all over England; at any rate there are no indications of local developments. This impression may be due to the lack of material representing all areas; but also to the fact that, as far as runic lore was still cultivated, it was in the hands of a restricted class with many interregional contacts. We should of course not forget that the runes had acquired an archaic flavour, and that they were on their way to become mere fossils. Only the few that had found their way in everyday script survived: as a system they sank to the level of 'Egyptian ', 'Gothic', 'Chaldaean' and 'Istrian'.
The situation on the Continent was very different. From the environment of the runes-see the tables of contents of the various manuscripts, and the place taken by the runes-it appears that they belonged to the scriptorium. There are some indications that they also found their way into the earlier stages of classroom training-the stages represented in our manuscripts by extracts from Cassiodore, Isidore and Bede. But it is easy to exaggerate their importance. There can have been no question of a systematic teaching of runes. They were probably treated rather like Aethicus Ister's alphabet, as a curiosum or, at the best, as illustrative material. It can hardly be a coincidence that there are five manuscripts with a version on runic cryptography, but no single instance of this cryptography being used for inscriptions (apart from those which illustrate the treatise). Systems of Latin cryptography may have been inspired by it, but that is another matter. We must not forget that the English runes were imported on the Continent long after the native runic tradition had died out there, and that they belonged to an entirely different level. The new runes were transplanted into the scriptoria and classrooms, but their survival must usually have been a question of luck. It is hardly credible that one should have tried to reintroduce them into Germany in the same way as runic writing was reintroduced into Denmark during the eighth century. That would have been to lend support to what traces of paganism might still survive. The idea that runes were taught systematically can
only arise when one looses sight of the relative unimportance of the runica manuscripta. As survivals of old Germanic culture they are very precious to $u$, but can hardly have been so to Carolingean scholars. Both in England and on the Continent the runes may have played some part in pseudo-science (or in what appears as such to us) (1). They occur often in the neigh bourhood of such matters as the 'sphere of Pythagoras', the 'Egyptian days', i. e. in surroundings which may be characterized as magico-scientific. This magic has not much to do with that practised by the Germanic peoples before their conversion. It is rather of classical and oriental inspiration, and this may explain why runes became 'Chaldaean ', 'Assyrian' and 'Egyptian' characters.

The bookish character of the Continental runica manuscripta is also borne out by the proportion between fuporcs and alphabets. Only four fuporcs written on the Continent have come down to us, and one is incomplete; but there are over twenty different runic alphabets, i. e. alphabets which go probably back to independent alphabetizations. Fuporcs must have been unwieldy to people who knew nothing of the system ruling this sequence of characters. Continental scholars could not use them-were it only for brief inscriptions-as long as they were not presented to them in the familiar order of the Latin alphabet. This explains the great number of independent alphabetizations : we got pretty far from von Grienberger's " zwei urredactionen ". It is useless to try to reduce the material of Chapters III-V to a series of consecutive attempts at creating a runic alphabet. Nor need these attempts be traced to the great scholars of the age. Any leisurely scribe who found a fuporc with the values of the runes may have tried to make an alphabet out of it. This is also proved by the unequal success of these attempts. Of the fuporcs only one-that in Brussels MS. 9311-9319-has been consciously adapted to Continental Germanic phonology. This finding too is significant. Much has been made of the "Ein-
(1) I fear that e. g. Gratran and Singer (Anglo-Sazon Magic and Medicine) have laid too much stress on 'pseudo ' in this connexion : did contemporaries make a distinction between such matters and what we should call 'science'?
deutschung ", of successive attempts to germanize the OE rune-names. Not one of the alphabets we examined can be said to have been successfully adapted to OHG. speech forms The attempts to dress the English words in a German garb were usually abandoned long before the aim was achieved. It is not improbable that a number of adaptations were accidental rather than conscious. The great number of forms which do not really seem to agree with OHG. orthography and phonology, the often unequal degree of adaptation should always be kept in mind when we talk about 'germanization'. We must also remember that many QE. rune-names hardly made sense for Continental scholars, even when they had grasped the system of sound-changes by which a word of the one language could be translated into the other. After all, some of the English names were hardly intelligible to Englishmen themselves.

For the understanding of the alphabets there is still another point to be kept in mind. The material from which alphabets were made was not uniform. Among the fuporcs that reached the Continent we can distinguish two main types: one with twenty-eight runes (Vienna MS. 795), and one with over thirty. These two types may already have been distinct in England, at least if we may judge from the fuporc in Cotton MS. Domitian A 9. The difference between the two lay especially in the group of gutturals that had been added in the longer fuporc. For an alphabetizer who had to find characters corresponding to Latin $c k q$, this addition was extremely important.

Most of the runic alphabets must have been very short-lived; few seem to have been known in more than one place. The few inscriptions examined in Chapter $V$ that were long enough to yield a substantial part of an alphabet point to still different alphabetizations. Only two runic alphabets seem to have become fairly popular. One was incorporated into a treatise on the alphabet written in a region of Germany were AngloSaxon influence was or had been strong. It was given a place between the fanciful alphabet of Aethicus Ister and various devices for cryptic and ornamental writing. This can hardly indicate that the author considered it especially important. Moreover his alphabet is very peculiar. It is made up of

English material with some addition of Norse; the names of the characters have been adapted more or less successfully for German readers: The whole has been arranged in a way that points evidently to the scholar's study; it is utterly remote from runic tradition. Yet the brief introduction to the alphabet is one of the very few texts written in the Continental Germanic area that tells us something about runes. The author explicitly states that these characters are foreign : he attributes them to the Normans. He does not even seem to have realized that the material from which he constructed his alphabet (provided he made it himself, but that looks rather likely) was almost entirely English.
The other alphabet that war destined to be copied for centuries, and even to survive the introduction of the art of printing, went under an assumed name. In Mediaeval collections of alphabets we find a number which are of obscure origin; they seem to have been invented ad hoc. Isidore had written that Abraham had invented the characters used by the Chaldaeans and the Assyrians; so a Chaldaeo-Assyrian alphabet had to be found. Perhaps some sort of pseudo-Hebrew or pseudo-Greek took ite place in alphabet collections. At an early date runes too were circulated under such fancy names. One such alphabet, probably located in the North East of France and in which the names of Aethicus Ister's letters had been substituted for runenames, assumed the name of 'Saracen' and was given a place in Mandeville's Travels. The real identity of the characters was to remain unknown until Hickes or Wanley (or both) discovered it.
Of all runica manuscripta the isruna group brought us closest to genuine runic tradition. Yet here too there is an evident "overlay of sophistication", and it looks as if this rather bookish development of the runic system had in its turn influenced runic practice in regions where one might have supposed there would be a continuity, as in Iceland. The study of the isruna group also showed how difficult it is to connect the manuscript runes with the epigraphic tradition. We find similar developments within a few decades on the Rök stone in Sweden, on the Hackness stone in England, and in a short treatise obviously
written in a German speaking area; this development reminds one in a rather striking way of Old Irish cryptography.

To end we may briefly examine to what further use the material collected in this study may be put. In the Introduction I expressed the hope that it will be of some help for the study of the English inscriptions. It is true that the gap between manuscript and epigraphical runes will be hard to bridge; but there must be points where the two meet. In a fairly recent paper the $j$-rune was explained as a ligature of $\mathbf{g}$ and $\mathbf{i}$ ( I ) an explanation which we also met in Chapter V (p. 390). In the discussion of Dickins's system for transcribing OE. runes I proposed $\mathbf{j}$ for $\Phi$ and $\mathbf{j}$ for $*$. The latter seems to be the only form used in English inscriptions, whilst the former is that of the manuscript fuporcs; these add $\mathbf{j}$ at the end as if it were a later addition. As a matter of fact the names of the two runes are very similar : gear : iar. This can hardly be a coincidence. The latter name reminds one immediately of the ON. rune $*$, which must have been called ${ }_{j}$ jar- till the sixth century, at which time it lost its initial palatal (2). It is not very likely that there should be no connexion between a rune $*$ which was called iar in England and one that was called $*_{j a}{ }_{r}$ - in Scandinavia. But this rules out the possibility that i should be a ligature of $\mathbf{i}$ and $\mathbf{g}$; the form was developed in Scandinavia from more primitive forms of $\mathfrak{j}$. The new form may have supplanted the English $\mathbf{j}$ in some regions, after which the two were accepted into an expanded fuporc. The value of both was probably indicated by the most common English device for rendering the palatal spirant: 5 . This being read as $g$ by Continental scribes, we are hardly surprised to find both runes used for $g$ and, in High German territory, for $k$. Read as a letter of the Latin alphabet, this runic $k$ could become a device for writing the OHG. prefix $k a$-. I believe this is a much simpler way of explaining its use in the Wessobrunn prayer than

[^11]to postulate a use of a ligature gi for the OE. OS. prefix gi-, of which no single instance has come down to us.
But further study is also possible within the field of the runica manuscripta. The runic alphabets e.g. may be divided into two groups according to their first rune : $\boldsymbol{x}$ or a. The choice of the former implies that the OE. name æsc had been altered to asc; that of the latter may indicate that no such alteration had taken place, and that $æ$ consequently could not take the place of $a$. In the same way we could examine all the points where alphabetizers had to choose between two or more characters, and from this we might learn a lot about their approach, about their understanding for a foreign but closely related language, about their being conscious of the peculiarities of their own language. We could even try to find out how many different fuporcs must have reached the Continent, and what dialects their rune-names represented. But here I must warn my readers not to expect too much : after the accidental changes and those made on purpose have been eliminated, we are left with an abstraction quite remote from the fuporcs written down in England. One detail will make this clear. As far as our material is concerned, the state of the vocalism is our main criterion for finding out to what OE. dialect it belongs. Diphthongs are very rare in rune-names written on the Continent. This can hardly mean that these Continental runic alphabets go back to fuporcs with very few diphthongs, and if they did, there are always considerations of OE. linguistic chronology that must refrain us from rash conclusions. Therefore the reconstructions and localizations which I ventured should be understood as possibilities or at the best as probabilities, never as certainties. This leaves open another road for further research. But to obtain any results we should first make a much closer study of spelling at large than we find reflected even in the most detailed OE. (and OHG.) grammars. I do hope that in this field, too, the present work may be an incentive to those who are interested in these studies.

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Aarbager for nordisk Oldkyndighed og Historie
A. f. d. A. = Anzeigèr für deutsches Altertum.
A. Ph. S. $=$ Acta Philologica Scandinavica.

Archiv für das Studium der neueren Sprachen
Arkiv för nordisk filologi.
Beiträge zur Geschichte der deutschen Sprache und Literatur.
D. St. = Danske Studier.
E. St. = Englische Studien.
G. R. M. = Germanisch-romanische Monatsschrift
J. E. G. Ph. = The Journal of English and Germanic Philology. Kgl. humanistiska vetenskapssamfundet i Lund. Årsberättelse. Kgl. vitterhets, historie och antiquitets akademiens handlingar. Mérnoires de la Société royale des Antiquaires du Nord.
M. L. N. $=$ Modern Language Notes.
M. L. R. $=$ Modern Language Review
M. o. M. $=$ Maal og Minne
M. S. L. = Mémoires de la Société linguistique de Paris.

Neues Archiv der Gesellschaft für ältere deutsche Geschichtskunde.
N. T. S. $=$ Norsk tidsskrift for sprogvidenskap.
P. M. L. A. $=$ Publications of the Modern Language Association of America.
Skrifter utgivna av Vetenskaps-societeten i Lund.
Språkvetenskapliga sällskapets i Uppsala förhandlingar
Studier i nordisk filologi.
T. N. T. L. $=$ Tijdschrift voor Nederlands(ch)e Taal en Letterkunde,
Z. f. d. A. $=$ Zeitschrift für deutsches Altertum
Z. f. d. Ph. $=$ Zeitschrift für deutsche Philologie
Z. f. vgl. Sprachf. = Zeitschrift für vergleichende Sprachforschung.
Z. f. Vkde $=$ Zeitschrift für Volkskunde.

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$$
\begin{aligned}
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& 843: 200 \mathrm{f} .
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$$

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fuparkgw hnijepzs tbemlgdo
(a) Germanic Fupark (ef, p. xvii ff.).

Danish YNARRY: * Swed.Norw. YKDFRY.+トH'•1Ftr, fupark hnias tbmiR
(b) Norse Fupąrks (cf. p. xix f.).

12, 45, is
 fuborcgw hnijupxs tbemlyda $252627282930313233 \quad$ 12a 16a 16b $24 a 33 a$
 $a x$ yeak $\bar{g} \bar{k} \bar{j}$ st
(c) English Fuporc (cf. p. xx ff.).



pxepe bepoppen. Xxp he pyinnum leopap:
byंperle eopla Jelpylcun. Xonn fxrzlice flare onginnç. hpapcolian hpura ceoran blac ro zebebban bleoa gebpeojap. pyma zepicap pepa бегрисар






Brusels, Kominklijke Bibliotheek, 115. 9565-9506, fol. \&r (p, 100 If.



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 x－mi




（b）Munich，Bayerisclo Statshibliothek，Msis．lat．6272，inside from coner （p． 10 （ f ．）



## Cum apo foolir;

 RNAX X



[^0]:    (i) A. Blıkstige, Malruner, Runes, 182

[^1]:    (1) J. Blomprido, Runes, x85. Cf. Chapter V.

[^2]:    6. Fragmentum, Catalogus, 134 : " 5 . Alphabetum Norwegicum sive Runicun 6. Fragmentum Runicum "
    (2) H. Wanley, Catalogus, 239

    Islandicae Rudimenta, Tab, Grammatica Anglo-Saxonica, 136; Grammaticae

[^3]:    (1) K. Luick, Historische Grammatik, $\$ 63$

[^4]:    (I) W. Briund, Althochdeutsche Grammatik, §§ 163, 134

[^5]:    (1) G. Ehrismann, Geschichte der deutschen Literatur I, 46
    E. G. Grafp, Sprachschats II, 523 s. v. rûna.

    A different interpretation is offered by E. Wearr, Zu dem Wort Rune. Ar-

[^6]:    (I) E. Brats, Zur Deutung der Robker Inchrift, 285, in S. Bugge, Der Runen-

[^7]:    (1) There is no evidence that any of the runic alphabets found in Continental manuscripts goes back to native runes; the latter died out some time before the importation of English runes began, or at any rate they never found their

[^8]:    E. Strinmixyer - E. Suverrs, Althochdeutsche Glossen IV, 636.
    E. Enwaw, Aldhelmi Epistolae. (Mon. Germ. hist., Script. Ant. XV), 519 M. Tancl, Die Briefe des h. Bonifatius und Lullus (Epistolae selectas in usum scholarun ex Berlin, 1916, XI ff.
    (I. Teil). Neues rchiv 40 ( $\mathbf{1 9 1 6 ) , ~ 6 3 9 - 7 9 0 .}$
    H. J.
    (i) E Stas, Vocabularius, 97.
    (i) E. Strinmixer-E. Sibvers, Althochdeutsche Glossen IV, 636
    (2) E. Stbinmexer-E. Sibers, Althochdeutsche Glosen IV, 636
    H. J. Hrrmann, Frühmittelalterliche Handschriften, 122.

[^9]:    (I) Cf. Silhearwan ' Aethiopians 'for Sigelhearwan, E. Sigvers-K. Brunnerr

[^10]:    (1) G. Baesecke, Abecedarium

[^11]:    (1) L. Whitbrbad, The Tharnhill Inscription. Notes and Queries 1948, 156 interprets ; as either gi or ig; the first name on Thomhill III should be read Igilsuip.
    (2) O. von Frimes, Runorna, 45.

