NOWELE Supplement Series 32

The Carthaginian North

Semitic influence on early Germanic

A linguistic and cultural study

Robert Mailhammer
and Theo Vennemann

John Benjamins Publishing Company

The Carthaginian North: Semitic influence on early Germanic

NOWELE Supplement Series (NSS)

ISSN 0900-8675

NOWELE Supplement Series is a book series associated with the journal *NOWELE: North-Western European Language Evolution.* The supplement series is devoted not only to the study of the history and prehistory of a locally determined group of languages, but also to the study of purely theoretical questions concerning historical language development. The series contains publications dealing with all aspects of the (pre-) histories of – and with intra- and extra-linguistic factors contributing to change and variation within – Icelandic, Faroese, Norwegian, Swedish, Danish, Frisian, Dutch, German, English, Gothic and the Early Runic language. The series will publish monographs and edited volumes.

For an overview of all books published in this series, please see
benjamins.com/catalog/nss

Volume 32

The Carthaginian North: Semitic influence on early Germanic
A linguistic and cultural study
by Robert Mailhammer and Theo Vennemann

The Carthaginian North: Semitic influence on early Germanic

A linguistic and cultural study

Robert Mailhammer
Western Sydney University

Theo Vennemann
University of Munich

John Benjamins Publishing Company
Amsterdam / Philadelphia

DOI 10.1075/nss.32
Cataloging-in-Publication Data available from Library of Congress:
LCCN 2019028027 (PRINT) / 2019028028 (E-BOOK)

ISBN 978 90 272 0401 1 (HB)
ISBN 978 90 272 6214 1 (E-BOOK)

John Benjamins Publishing Company · www.benjamins.com

Table of contents

Acknowledgements

This book is a milestone in a long discovery journey for both authors. It would not have been possible without the help, support and criticism we have received from friends and colleagues, and we are thoroughly grateful for that.

We would like to express heartfelt thanks to the many colleagues who have given us feedback and read drafts. In particular, we would like to thank John Ole Askedal (Oslo), Anthea Fraser Gupta (Leeds), Eugen Hill (Cologne), Robert M. Kerr (Saarbrücken), Stephen Laker (Fukuoka), Na'ama Pat'El (Austin), Marc Pierce (Austin), Joe Salmons (Madison-Wisconsin). We also thank the editors of the *Northwestern Language Evolution Supplement Serie*s, Hans Frede Nielsen and Stephen Laker, for accepting the book after peer review, and we thank the reviewers for their thoroughness, their criticism and valuable suggestions. A big thanks also goes to Vanessa Mailhammer for all her help with our maps and figures.

Last but not least, we would like to express our heartfelt gratitude for all the love, patience and encouragement from family and friends that supported us in completing this book.

Preface

This book presents an account of how some key features of Proto-Germanic can be explained as outcomes of contact-induced change. It proposes an alternative to previous work in two respects. First, existing accounts have largely interpreted these features as results of language-internal processes. Second, they have not focused on identifying the causes for these processes. The central hypothesis advanced in this book has powerful implications for the history of Germanic and its speakers, because, if it is correct, it means that speakers of Punic, a Semitic language originally from Carthage in North Africa, lived in Northern Europe for a period of at least 300 years, and were in contact with speakers of what was to become Proto-Germanic. As they were culturally superior, these Punic-speaking people left significant traces in various aspects of Germanic culture, especially the language, the writing system and religion. This stands in contrast to the general opinion that the Germanic tribes were a socio-cultural superstratum and subjugated and assimilated the local population. That may be the case when they initially arrived in their European location, and many words for plants and animals, such as 'eel', 'carp' and 'marten', are evidence for this. However, the phenomena we discuss in this book cannot be explained that way. They are best explained by a situation in which the Germanic tribes were socially dominated by speakers of another language, which we propose to be Punic.

The evidence this theory is based on is chiefly linguistic. That is, we will examine peculiarities of Germanic vocabulary and grammar and argue that they are best explained as the result of language contact in Punic-Germanic bilingual speakers. In order to do this, we will try to show that these traits of Germanic are not inherited from the protolanguage or likely to have developed internally. We will also attempt to show that the relevant parallels between Punic and Germanic are too close to be accidental. Finally, we present a reconstruction of how contact with Punic could have given rise to the peculiar features of Germanic. This will be supported by some non-linguistic evidence, of which we believe the writing system to be especially important. However, one of the fundamental arguments of this book is that the linguistic evidence is able to speak for itself and that extralinguistic support is welcome but not necessary to make a convincing case.

This book is based on research and scholarship that has evolved over a period of more than 25 years. The most immediate motivation is to answer the question of why

Germanic shows some peculiar differences in comparison to other Indo-European languages. To us, historical linguistics is as much about providing a historical account of events as it is about identifying causes for these events. Of particular concern for this book are the (in)famous ablaut classes and the system of the strong verbs, the many words in the Germanic lexicon with unclear histories, the unusual constituent ordering rules and the strange runic writing system, as well as the "Near Eastern" features in the Germanic religion which were recognized over a century ago but left unaccounted for. All of these phenomena are well known, but existing accounts are largely descriptive, and attribute them to language internal developments (except for the runic writing system), or simply ignore them (as in the case of the religious peculiarities). On the other hand, there have always been alternative approaches that suggested contact as a source of these features. However, none of these approaches has been specific enough to be considered a serious alternative. A paper by Günter Neumann (1971) argued specifically against such hypotheses that worked with the assumption of substrate influence. What seemed to have gone unnoticed is the fact that a significant part of the Germanic vocabulary generally considered to be of unknown origin is actually likely to be from a superstratum, as Vennemann (1984) demonstrated with parallel cases. What Vennemann (1984) also shows is that if an external source for the problematic Germanic features is to be explored seriously, it must do so observing best practices in the field. This book is an attempt to do exactly that, namely test whether a hypothesis that attributes unexplained features of Germanic to contact-induced change can be developed in accordance with best practices.

We are well aware of the speculative and hypothetical nature of the account presented here. However, we do not at all think that this disqualifies it. We do maintain that speculation has a clear place in the scientific method, and that is to introduce a fresh thought into the discussion of a problem. It is not a method to draw a logical conclusion, and cannot be used to prove anything. Rather, it takes the observations made and asks whether a hypothetical scenario would be able to explain them without conclusive proof that such a scenario exists. It might well turn out that there is no such scenario but it should be methodologically legitimate to make an alternative assumption in an effort to break a deadlock. We think that research on the history of Germanic has reached such a deadlock with significant problems left unexplained. This book should be seen as the introduction of such an alternative assumption and an exploration of its explanatory power. We try to argue in this book that it is good enough to be pursued further, but we are aware that not everyone will be of that opinion. This is an exploratory proposal and we welcome an academic discussion, even if it demonstrates that we are wrong. Indeed, such a demonstration would be welcome, because we then could turn our attention to some of the many other pressing problems of linguistics.

We hope that reading this book will be interesting and stimulating. However, from experience we are sensitive to the kinds of emotional reactions its content is likely to trigger. We can only apologize in advance: it is not our intention to cause alienation or anger. We confess we do not fully understand why our hypotheses do that from time to time, it is entirely unintentional.

CHAPTER 1

Introduction

The purpose of this chapter is to introduce the problems that provide the motivation for the theory proposed in this book. We will explain what the issues are and why we think they have not been accounted for in a satisfactory way. The four areas that we will cover are the lexicon, verb morphology, syntax and the writing system of Germanic.

1. Lexicon

Many introductions to the history of the Germanic languages mention that a considerable portion of the Proto-Germanic vocabulary has not found an Indo-European etymology (Bach 1970: 64; von Polenz 1979: 21–22; Schildt 1981: 29; Ringe 2006: 295). A recurring estimate in the handbooks is that the unetymologized – often unetymologizable – portion amounts to approximately one third of the total Germanic vocabulary. To our knowledge, there is, however, only one empirical study in which this figure has been quantitatively determined, Liebich (1899). This study was prominently quoted in Hirt (1921: 92–93); see Augst (1975: I.6–8, 16) for a short critical appraisal of Liebich's method. It seems that this figure was copied and transmitted by other authors so that it became the received wisdom. The most recent quantification of etymologies in Germanic is Mailhammer (2007a), and according to this study, the proportion of Proto-Germanic strong verbs without accepted Indo-European etymology is considerably higher, namely 45.9%. Given that the strong verbs constitute the language's primary verbs, which usually are more difficult to borrow than nouns, it is possible that the total lexicon has even more non-etymologized items. To obtain a more realistic sense of how many Germanic words have no etymology, we examined a sample of randomly selected Proto-Germanic words from Kroonen's (2013) recent etymological dictionary of Proto-Germanic. The total number of entries in this dictionary is 2,800. We used the sample size calculator provided by www.surveymonkey.com, which uses the standard formula given in (1).

(1) Sample size = $(z^2 * p(1-p)/e^2) / (1+z^2 * p(1-p)/e^2N)$
N: population size, e: margin of error; z: z-score

With a margin of error set at 4% and a z-score of 1.96, which corresponds to a standard confidence level of 95%, a representative sample of a population of 2,800 is 495. Our sample comprised 500 randomly selected words. The sampling procedure involved importing the headwords from Kroonen (2013), assigning every lemma a number. We then generated 500 random numbers between 0 and 2,800 in Microsoft Excel. Any number that occurred twice was replaced by another randomly generated number. We then assigned a binary value to each verb coding whether the relevant word had an accepted Indo-European etymology or not, i.e. whether it was assigned to Indo-European in Kroonen's coding. We strictly followed the author's judgement. However, we were more lenient in accepting words as Indo-European that were assigned only to a European level but had tangible connections outside Europe, or even if there was at least a cognate from a geographically non-contiguous language, such as Armenian or Greek. Of the 500 randomly selected words 244 had an accepted Indo-European etymology, and 256 did not. This corresponds to 48.8% vs. 51.2%. Consequently, it is likely that the transmitted figure of 30% is much too low.

As we lack a quantitative etymological study for a language that is contemporary with Germanic, it is impossible to say whether a figure of 51.2% in unetymologised vocabulary is relatively high or not. Mailhammer (2007a: 183) compares the Germanic strong verbs to the primary verbs of Greek and Sanskrit. Both have much lower percentages of non-etymologised primary verbs (Sanskrit: 17.8%, Greek: 30.7%), but neither language is a contemporary of Proto-Germanic. Thus, it may be that the higher figure of Germanic is due to much later attestation.

Irrespective of the relative significance of the fact that probably more than half of the Proto-Germanic lexicon has no Indo-European etymology, it is a fact that Germanic contains a substantial amount of unetymologized vocabulary. And this fact has been known for quite some time.

Previous work has dealt with this issue in two main ways. First, to some authors this is not a significant problem, and second, explanatory approaches have assumed that the main source of this vocabulary was a substratum language. The first view seems implicit in the short section on the Proto-Germanic lexicon in Ringe (2006: 295–297). Ringe (2006: 295) says that "the lexicon of PGmc., like that of all IE languages, included many words of doubtful or unknown origin", but then implicitly asserts that this is not an interesting issue: "Much more interesting are PGmc. lexemes that can be shown to have been borrowed from other languages" (Ringe 2006: 296). Neumann (1971) offers a different reason for pretty much the same conclusion. He thinks that the number of non-Indo-European words (he believes that this could only come from a substratum) would be so insignificant that an investigation would be almost a waste of time.

It is clear that the fundamental assumption behind Neumann's position is incorrect: the Proto-Germanic lexicon contains a significant number of words for which it has so far been impossible to demonstrate an Indo-European origin. Even if future research were to make quantum leaps ahead, it is apparent that a substantial number of non-Indo-European borrowings is a likely scenario.

We can only speculate about why Ringe (2006) finds the origin of words for concepts like 'hand', 'bone', 'rain' or 'stone' (all from the short list in Ringe 2006: 295–296) uninteresting. It may be that he thinks it is futile to investigate these words, because it is impossible to ascertain their origin. This is a real issue, an issue of how resources are deployed, and we can see the merit in this argument. However, we think in order to push the boundaries of the discipline we must attempt to solve seemingly unsolvable problems. Simply ignoring a problem will not make it go away. Consequently, we believe that it is better to try and fail than not to try at all. In this spirit, we will gladly listen to warnings but then march on as cautiously as we possibly can, well aware of what we are doing.

The second reaction to words without etymologies in Proto-Germanic has been to attribute the problematic vocabulary at least partially to lost substrate languages. The vast majority of this kind of reaction has been so unspecific that they do not count as actual approaches or attempts to solve the problem (Scardigli 1973: 45; Schrodt 1974: 186; Hutterer 1975: 43; Eggers 1980: 26; Schildt 1981: 29). Some authors have collected lists or examples of words without etymologies, and some of their general features were noticed. For example, von Polenz (1979: 21–22) mentions the German words *Adel* 'nobility', *Dieb* 'thief', *dienen* 'serve', *Ding* 'thing', *Sache* 'thing, affair', *Schwert* 'sword', *Schild* 'shield', Germanic vocabulary related to battle that survive in personal names such as Gunter (PGmc. $^{+}$*gunþ-* 'fight'), as well as nautical vocabulary.[1] He also points out that many Germanic words with initial /p-/ do not have good etymologies. But this is essentially as far as previous accounts have gone. It is apparent that the substrate hypothesis to account for the problematic vocabulary in Germanic has not been developed far enough, and consequently it has not produced any tangible results. That it is in principle possible to propose a coherent hypothesis that explains problematic features of Germanic with substratum influence has been demonstrated by Peter Schrijver in his 2014 book (Schrijver 2014: Chap. 5). However, Schrijver's theory does not account for the majority of the problematic vocabulary we are concerned with here.

As mentioned already in the Preface, a key point made in Vennemann (1984) is the fact that much of the non-etymologised vocabulary is found in semantic fields

1. We use the raised cross '$^{+}$' to indicate that a word is reconstructed instead of the standard asterisk, which we reserve for ungrammatical structures in line with synchronic conventions, to avoid ambiguity. In quotations the use of the author(s) is respected.

that are more consistent with a superstratum than a substratum. The following examples from Stroh (1974) may suffice to demonstrate the superstratal character of these words without accepted etymologies.

(2) Etymologically problematic words in Germanic (German examples)
   a. War, weapons, and related matters
   Waffe 'weapon', *Krieg* 'war', *Spieß* 'spear, spit', *Schwert* 'sword', *treffen* 'to hit', *fliehen* 'to flee', MHG *urliuge* 'war', *Hader* 'discord', *zwingen* 'to force', *feige* 'cowardly', +*gunþjō* 'battle', and many others
   b. Law
   Sühne 'expiation, atonement', *stehlen* 'to steal', *Rüge* 'reprimand', OHG *ēwa* 'law' (> G *Ehe* 'wedlock'), *Dieb* 'thief', *Schuld* 'guilt', *Gewähr/gewähren* 'guarantee / to grant, afford', *Sache* 'object, law case', *Schöffe* 'juror', and many others
   c. State and communal life
   Knecht 'servant, slave', *Schalk* 'rogue', *Sünde* 'sin', *Ding* 'object' (originally 'assembly'), *Volk* 'people',[2] *Huld* 'grace, favor', *weihen* 'to consecrate, dedicate', *Diener/Dirne* '(male/female) servant', *Sippe* 'sib, extended family, clan, kinfolk', *Adel* 'nobility', *Leid* 'harm, grief, affliction', *Schultheiß* 'mayor', *Graf* 'count, earl', and many others
   d. Expressions from various spheres of everyday life
   trinken 'to drink', *Leder* 'leather', OHG *sān* 'immediately', *Luft* 'air', *Hand* 'hand', *bitten* 'to request', *Regen* 'rain', *Winter* 'winter', *geben* 'to give', *nehmen* 'to take', *Leben* 'life', *Blut* 'blood', *Wolke* 'cloud', and many others

These are some of the Germanic-only words offered by Stroh and others. Their occurrence in this abbreviated list does not imply that there exists unanimity about their status as not etymologized, but most of these words have at best questionable etymologies. The superstratal character of at least the words in (1a) to (1c) is evident through comparisons with parallel cases, such as English influenced by a French superstratum or Scandinavian influenced by a Low German commercial superstratum (see Vennemann 1984). This pivotal discovery explains why substratum theories are a priori unlikely to account for much of the non-etymologized part of the Germanic lexicon: substrata usually influence different semantic fields and generally do not influence the lexicon to a large degree.

Consequently, there are two viable approaches to etymologizing words of unkown origin in Germanic if one does not want to give up without even trying. First, more research could be done to try to connect these words to other Indo-European

2. This word actually belongs into category a, "War, weapons, and related matters", because its original meaning is a military one, 'division of an army'; see Chapter 4.

languages, and it is to be expected that this would be fruitful. Second, a theory could be proposed that explains these words as the result of contact with a superstratum. This is immediately warranted by the kind of words lacking etymologies. The case of Germanic loanwords in Finnish is an instructive parallel that can be found in Raimo Anttila's textbook of 1972 (see Kallio 2015 for a recent treatment of Germanic loanwords in Finnish): "Germanic loans in Finnish cluster into roughly the same areas as the French ones in English" (Anttila 1972: 163). The conclusion Anttila draws is just as instructive:

> A justified inference from all this is that the Baltic Finnic speakers apparently absorbed a Germanic-speaking upper class. … The other available evidence does not speak against this hypothesis, but rather supports it, in that there seem to have been Germanic trading posts in the Baltic. (Anttila 1972: 163)

Our own attempt at explaining at least some key cases of the unetymologized vocabulary as loans from a superstratum follows a very similar line of thinking. It can be found in Chapter 4.

2. Morphology: The Germanic strong verbs

The two major and morphological innovations in the Germanic verb system are the systems of the strong and the weak verbs. Both innovations have been discussed in a vast body of literature with respect to their characteristics and their origins. For the weak verbs, the main subject of discussion is the history of the weak past tense. The consensus is that it is the result of an innovative periphrastic construction with 'do' (see e.g. Hill 2010). We will not discuss the weak verbs in this book, but note that its commonly assumed origin is consistent with the general theory we propose. Periphrases with light verbs are common outcomes of contact-induced change, as is generally known. The general view on the strong verbs is that they more or less organically developed from the Proto-Indo-European verb system, although with drastic changes (see e.g. Ringe 2006). The strong verbs are of central concern to us here, because we think that there are still major unsolved problems in explaining their development. We concur with the consensus view insofar as we agree that the morphogical elements of the strong verbs are inherited from Proto-Indo-European. However, we contend that both the selection of elements as well as the way these elements surface in Proto-Germanic is so typologically different from other Indo-European languages and crosslinguistically unusual that we think that language contact may offer a more coherent explanation. In this section, we give a brief background of why we are of this opinion, summarizing and building on the key points made in Mailhammer (2007a). The four major innovations of the strong

verbs are the functionalization and systematization of ablaut (vowel alternation/change), the uniformization of present tense stem formation, and the drastic reduction of grammatical categories expressed on the verb.

2.1 Functionalization of ablaut

The term *ablaut* is traditionally used to refer to the different vowel found in etymologically connected words – either as part of an inflectional paradigm or through a relationship of derivation. For instance, in the paradigm of the English verb ***s*i*ng***, some forms of the paradigm, namely ***s*a*ng*** and ***s*u*ng***, differ with respect to their root vowel. The same morphological difference is found when comparing the verb *sing* to the derived noun ***s*o*ng***. In all these words the difference in root vowel can be viewed as changing from one form to another, which is exactly what the German philologist Jacob Grimm meant when he coined the term *ablaut* in the 19th century.

Modern linguistics has retained the term (among several others; see Mailhammer 2007a: 31 for a terminological discussion), but it has become clear that not everything about the traditional concept is useful, in particular when applied cross-linguistically. For instance, the view that the vowel changes implies that there is an original form that acts as a base from which all other "ablaut grades" are derived. This works rather well from an Indo-European perspective. But especially in Semitic languages it is inadequate, as the "base" form is usually formulated without vowels, i.e. just as a consonantal skeleton with empty slots which are filled according to morphological rules. This can be illustrated with the Arabic root *k-t-b* denoting a basic meaning 'write' but not necessarily in a verbal sense. The empty squares are a notational tool to represent the ablaut slots mentioned above.

(3) Vowel alternations in Arabic: the root *k*□*t*□*b* 'write'
   a. nominal vocalization *i* – *ā*: ***k*i*tāb*** 'book'
   b. 3SG.PERF.M (vocalization *a* – *a*): ***k*a*t*a*b*-*a*** 'he wrote'
   c. PART.ACT (*ā* – *i*): ***kātib*** 'writing, writer'
   d. 2IMP.M (Ø – *u*): *u*-***k*t*u*b*** 'write!'

The vocalization patterns depend on the grammatical function that is to be expressed, e.g. an inflectional form or a derived form. In contrast to the English examples above, there is no basic form that is altered; the base is entirely non-vocalic. Hence, it is inadequate to conceptualize ablaut in Arabic merely as vowel change. Rather, we can speak of a consonantal template, which is why one modern term for this kind of ablaut is "templatic morphology" (see Rubba 2001 for other terms and further terminological details).

Consequently, the lexical semantic content is only connected to the consonantal skeleton; the vowels contribute chiefly grammatical information. The English examples mentioned above serve to illustrate this phenomenon, although in a greatly limited fashion. If the verbs *bind* and the nouns *band* and *bond* are considered, it could be agued that the lexical meaning is in fact carried by the consonantal frame *b-n-d*, just as writing in Arabic is denoted by the root *k-t-b*. From this point of view, one would have to posit that mophological rules specify the vocalization of different inflectional and derivational realizations of this root, e.g. the preterit by inserting the diphthong [a͡ʊ], a factive noun by inserting the vowel [ʊ], and so forth. In English, this principle has limited applicability, not only because these rules do not work for all words, but in particular because *bnd* does not unambiguously mean 'bind'. The English lexicon contains also the verbs *bend* and *bound*, both of which do not reflect the meaning 'bind' synchronically. This shows that the radical vowel in English necessarily contributes to the lexical meaning of a word, especially in the infinitive, the citation form of a verb, unlike in Arabic (see Gafos 2003; Goldenberg 2013; Prunet 2006 for the psycholinguistic significance and reality of purely consonantal roots in Semitic languages and an extensive discussion with references). Thus, ablaut can be conceptualized differently from the original idea expressed in Grimm's term.

Languages making use of ablaut or templatic morphology do so to different degrees, which is also relevant for a typological distinction of ablaut systems. This concerns the number of vocalic alternations possible but also the role it plays within a language's morphology. From the Arabic examples in (3), it becomes clear that ablaut plays a major role in Semitic morphology, being used as the main means of stem formation and derivation. By contrast, the relationship of English *bind* to *bond* is paralleled formally by *sing* and *song*, but this is not reflected in the same way semantically as this would be the case with two Semitic nouns sharing the same vocalization patterns, for example agenitive nouns using a $C_1äC_2aC_3i$ pattern in Amharic, cf. *säbari* 'one who breaks' (√sbr 'break) and *gäday* 'killer' (√gdl 'kill'), see Meyer (2011: 1190) for further details. Moreover, ablaut in derivation is not productive in English, whereas it is in Semitic.

In addition, ablaut in Semitic languages frequently expresses a grammatical function all by itself. For instance, the semantic relation expressed by the active participle is formally marked only by the vocalization pattern, and the perfect stem likewise shows a particular ablaut pattern (see (3) for the forms). While we are not saying that ablaut is the only feature in differentiating forms belonging to different categories, we are saying that a stem in a paradigm of, for instance, a verb form is often only characterized by ablaut alone. This becomes clear from the brief description in Spencer's chapter in the *Handbook of Morphology* on morphological operations:

> Thus, the basic (default) shape of a perfective active verb stem in Modern Standard Arabic is CaCaC – for example, *katab-a* 'he wrote'. Verbs of this class form their passive by replacing the vocalism with *u-i* : *kutib-a* ' it was written'.
>
> (Spencer 1998: 132)

If only the stem in a morphological sense, i.e. a word form minus inflectional material, is considered, then *katab-* and *kutib-* only differ with respect to their ablaut patterns (*a-a* vs. *u-i*). And since the stem *katab-* is the principal part of the paradigm serving as the base for e.g. the 1SG vs. 3SG perfective active, and similarly *kutib-* for the corresponding passive, it is evident that the ablaut pattern is indicative of a grammatical category in this paradigm, contrasting e.g. perfective active vs. passive (see also Goldenberg 2013 for instructive examples).

This use of ablaut as a distinctive feature is in fact an important typological criterion in determining the position of ablaut within a morphological system. Languages may possess ablaut as a morphological property, but it may be one among several co-occurring devices marking one grammatical category. For example, the perfect tense of some verbs in Ancient Greek shows ablaut of the root syllable, e.g. *lél**o**ipa* 'I have left' vs. *l**e**ípō* 'I leave'. But the perfect stem *léloip-* also displays a reduplicative syllable *le-* and a shift of the stress away from the root vowel in contrast to the present tense stem *léip-*, which is stressed on the root and lacks a reduplicative prefix. As a result, ablaut in the perfect tense of Ancient Greek *leípō* 'I leave' is not the decisive marker of the perfect tense; it is one of three properties which are used to form the perfect stem, and hence ablaut is used differently from Arabic, as shown in (3) above.

Finally, there is the question of how pervasive ablaut is within the morphology of a language. Is it used to indicate most, many or few semantic or grammatical categories, or how common is it to encounter this feature in the language? This could be measured in terms of how many grammatical functions or other categories are marked by ablaut as opposed to those that are not, but for our purposes it will be sufficient to contrast, e.g. Semitic, where ablaut is used extensively, with the Native American language Quechan, where ablaut is used to mark e.g. plurality but little else (see Gillon & Mailhammer 2015).

To sum up, ablaut is a traditional term that refers broadly to the difference in vocalism between etymologically related forms. Languages differ according to how prominent ablaut is in their morphology. Among the variables discussed are the following:

(4) Typological parameters of ablaut as a morphological property (Mailhammer 2006)
   a. **Function**: Does ablaut have a purely grammatical function (Arabic and other Semitic languages), and is therefore the lexical information only contained

in the consonantal skeleton, or is the vowel part of the root, thereby contributing significantly to the lexical information (Indo-European languages)?
b. **Extent**: Is ablaut used extensively to mark grammatical relationships morphologically or is it a marginal feature occurring in one or two formations?
c. **Productivity**: Are ablaut formations productive?
d. **Distinctiveness**: Is ablaut used as a distinctive morphological property, i.e. as the sole means to express a grammatical category?

These typological criteria will be used in subsequent sections to show that Germanic uses ablaut typologically differently from the Proto-Indo-European parent language and other Indo-European daughter languages. They could further be quantified in order to be used in a large-scale typological study, but for our purposes this will not be necessary.

2.1.1 *Ablaut in Proto-Indo-European*

This section establishes the characteristic features of ablaut in Proto-Indo-European with respect to the criteria in (4) above. Proto-Indo-European is relevant because in order to show that Proto-Germanic is innovative it has to be compared with its parent language. The typological profile of ablaut in Proto-Indo-European is summarized in (5).

(5) Properties of Proto-Indo-European ablaut
a. **Function**: both lexical and functional (the lexical root information is carried by both vowels and consonants)
b. **Extent**: fairly widespread use in inflection and derivation
c. **Productivity**: productive at some stage, but probably recessive by late Proto-Indo-European
d. **Distinctiveness**: generally not distinctive

The position of ablaut in the morphology of Indo-European, especially in the verb system, is discussed extensively in Mailhammer (2007a: 26–32). We will not reiterate this material in detail but merely summarize the main arguments.

First, the function of ablaut generally is to indicate a grammatical relationship, either inflectional or derivational. However, the crucial difference to Semitic-style ablaut is that in Indo-European the ablauting vowel also contributes to the lexical meaning of a verb. Consequently, ablaut in Proto-Indo-European performs a combination of lexical and grammatical function (see e.g. Fortson 2010 for a good overview).

Second, the use of ablaut as part of morphological rules (both derivational and inflectional) is widespread in Proto-Indo-European. This is uncontroversial, given the amount of morphological rules containing ablaut.

Third, ablaut, at least in inflection, is likely to have been "recessive" (Vennemann 1998a: 41) by late Proto-Indo-European. For instance, paradigms possessing two stems with different ablaut grades, i.e. all athematic formations, tend to level this difference frequently. In addition, the more recent thematic types do not show ablaut of the root vowel, and ablaut in the suffix does not correlate with any grammatical category.

Fourth, ablaut in Proto-Indo-European is generally not used distinctively, i.e. it does not express grammatical categories all by itself. This is a known typological difference between Indo-European and Semitic languages (Kuryłowicz 1961: 13).

2.1.2 *Functionalized ablaut in the Proto-Germanic strong verbs*

The key difference between Proto-Germanic and Proto-Indo-European in the use of ablaut is that ablaut in the vast majority of the Germanic strong verbs is the only morphological property that expresses relevant grammatical categories on the verb stem (in addition to reduplication in ca. 15% of the verbs). In this respect, typologically, the use of ablaut in the Germanic strong verbs is more similar to that in Semitic and less similar to how it is used in Indo-European more widely. Grammatical category information is of course also indicated on the inflectional suffixes. However, these suffixes are a function of the category, which is determined first and foremost by the stem.

The paradigm of a Germanic strong verb consists of several stems, each of which is the basis for one or more grammatical categories and each of which shows a respective ablaut grade, illustrated in (6) with the example of PGmc. *⁺helpanan* 'help'.

(6) Ablaut in the inflected stems of PGmc. *⁺helpanan* 'help'[3]
present tense stem: *⁺help-*, e.g. *⁺help-ō* 'I help'
past singular indicative stem: *⁺halp-* , e.g. *⁺halp-t* 'you helped'
past stem: *⁺hulp-*, e.g. *⁺hulp-ume* 'we helped'

As can be seen from these examples, ablaut provides the only morphological marking for the verb stems in terms of the grammatical categories 'tense' and 'number'.[4] There, it is neither accompanied by any other morphological property nor dependent on any other morphological rule. The only variable is the ablaut vowel, which is determined by the ablaut pattern by virtue of the ablaut class a verb belongs to, which is in turn determined by its phonological root structure. Consequently, ablaut is a distinctive morphological property, and moreover, as soon as the ablaut system – primary or secondary – is known, the ablauting vowel can be represented

3. See e.g. Bammesberger (1986: 105–107), Ringe (2006: 265–268).

4. On the verb stem, number is only marked unambiguously in the past tense indicative; the subjunctive has the same ablaut grade in the singular and plural.

as an empty slot, just as in the Semitic system. This will be illustrated in Section 3 below, in which the systemic organization of ablaut is discussed.

In terms of the typology proposed above, this indicates a change in the function (4a) and distinctiveness (4d) towards a more grammatical ablaut and towards the distinctive marking of grammatical categories. This is illustrated in Table 1.

Table 1. Comparison of ablaut in Proto-Indo-European, Proto-Germanic and Semitic

Parameter	Proto-Indo-European	Proto-Germanic	Semitic
Function	lexical and grammatical	lexical and grammatical	grammatical
Extent	widespread in inflection and derivation	widespread in inflection and derivation	widespread in inflection and derivation
Productivity	probably low by late PIE	at least some productivity (?)[5]	productive until today
Distinctiveness	usually not distinctive	Distinctive (strong verb stems)	distinctive

The traditional literature on the Germanic strong verbs makes no effort to explain this development, if it is even noticed (see the overview in Mailhammer 2007a: 45–50). Typically it is just stated that Germanic has extended the inherited ablaut patterns and its usage (see e.g. Ramat 1998; Prokosch 1939; Ringe 2006). The point, however, is that Germanic uses the inherited ablaut distinctions in a typologically different way. It is not the case that the morphological elements are in fact different from Proto-Indo-European, but how they are used is different.

A more fundamental question is why exactly ablaut occupies such a central position in Germanic verb morphology, a situation that is not found in any other Indo-European language. Typologically, according to nearly all accounts, ablaut is a relatively marked morphological property due to its perceived opacity (see Corbett 2009; Plank 1981), crosslinguistic rarity (see e.g. WALS, Feature 20A), and in Indo-European languages it is morphologically epiphenomenal although pervasive. In our view, in the face of the apparent rarity of ablaut, it is insufficient to assume that this is a purely internal development.

5. Ablaut remained at least indirectly productive as a property of word formation in the nominal system within the existing morphological rules (Mailhammer 2008). In the verb system the situation is less clear. New verbs in the attested daughter languages generally belong to the weak verbs, although borrowed verbs sometimes are integrated into the strong verbs if their root structure matched. Known cases are e.g. E *strive* (from Old French *estriver*) and G *pfeifen* 'whistle' (probably from Latin, see Seebold 1970: 363). To some degree new strong verbs can still be formed today in English (Bybee & Slobin 1982) and German (Clahsen, Eisenbeiss & Sonnenstuhl-Henning 1997). But it is not clear what the situation was in Proto-Germanic, especially given the fact that almost half of the strong verbs have no accepted etymology (Mailhammer 2007a).

2.2 Systematized ablaut in the Proto-Germanic strong verb

Probably the most salient innovation of the Germanic strong verbs is their organization into ablaut classes, which is unique among the Indo-European languages. A particular ablaut grade marks each principal part of the paradigm of a Germanic strong verb, which is characteristic for one or more grammatical categories. Each paradigmatic form of a strong verb can be derived from one of the principal parts, and verbs are classified according to which ablaut grades show up in these essential forms. So, for instance in (6), +*helpanan* 'help' possesses the principal parts +*help*-, +*halp*- and +*hulp*-. In addition, there is the past participle stem, which for this verb is identical to the preterit plural stem. Consequently, the ablaut pattern, i.e. the ablaut grades which alternate in this verb, is *e* – *a* – *u*. By contrast, +*skakanan* 'shake' possesses only two principal parts, namely +*skak*- (present tense and past participle) and +*skōk*- (past tense), with the ablaut pattern *a* – *ō*. For Proto-Germanic six different ablaut patterns are typically reconstructed, see Table 2.

This table shows how the term 'ablaut class' points to the essence of the organizational principle of the strong verbs, namely the classification into groups according to the ablaut alternations within the paradigm. Verbs are put into subsystems based on their root vowel, *e* for the primary system and *a* for the secondary system. For the actual conjugation of the ablauting strong verbs after the assignment of subsystem, the ablauting vowel behaves like an empty slot and the root becomes entirely consonantal, like in Semitic.

What is referred to here as "systematization" of ablaut is the fact that the ablauting verbs of Germanic are exclusively organized into groups based on the ablauting root vowels in the stem allomorphs of their paradigms, which in turn is determined by their phonological root structure. That this organizing principle is not artificial but psycholinguistically real can be seen from newly created past tenses (Mailhammer 2007a) and class changes in the history of Germanic (Mailhammer 2007b), and also from the fact that deverbal derivatives show ablaut grades that are within the ablaut class rather than the grade that historically belongs to the relevant type of stem formation (Mailhammer 2008). Even in modern Germanic languages, certain classes of strong verbs have retained at least a limited form of productivity (see Bybee & Slobin 1982 for English; see Clahsen, Eisenbeiss & Sonnenstuhl-Henning 1997 for German).

Most accounts do recognize that the ablaut classes of the strong verbs are an innovation. The question is whether this system constitutes a significant innovation or whether it is noteworthy but relatively trivial. We argue that it is in fact significant. The Germanic ablaut classes are typologically rare. Neither Proto-Indo-European nor any other Indo-European language has anything like that. Proto-Indo-European are patterns of ablaut alternations but they are characteristic for a particular type of

Table 2. The ablauting strong verbs of Proto-Germanic and their categorization into ablaut classes*

Stem forms Classes	**1**	**2**	**3**	**4**
I C□*i*C- $^{+}$st□ig- 'ascend'	*e*F C*ei*C- $^{+}$*steig-*	*a*F C*ai*C- $^{+}$*staig-*	Z CØ*i*C- $^{+}$*stig-*	Z CØ*i*C- $^{+}$*stig-*
II C□*u*C- $^{+}$*k*□*us*- 'choose'	*e*F C*eu*C- $^{+}$*keus-*	*a*F C*au*C- $^{+}$*kaus-*	Z CØ*u*C- $^{+}$*kuz-*	Z CØ*u*C- $^{+}$*kuz-*
III C□CC- $^{+}$*f*□*nþ*- 'find'	*e*F C*e*CC- $^{+}$*fenþ-*	*a*F C*a*CC- $^{+}$*fanþ-*	Z CØCC- $^{+}$*fund-*	Z CØCC- $^{+}$*fund-*
IV C□R- $^{+}$*n*□*m*- 'take'	*e*F C*e*R- $^{+}$*nem-*	*a*F C*a*R- $^{+}$*nam-*	*e*L C$\bar{e}$R- $^{+}$*n*$\bar{e}_1$*m*-	Z C*u*R- $^{+}$*num-*
V C□C- $^{+}$g□b- 'give'	*e*F C*e*C- $^{+}$*geb-*	*a*F C*a*C- $^{+}$*gab-*	*e*L C$\bar{e}_1$C- $^{+}$*g*$\bar{e}_1$*b*-	*e*F C*e*C- $^{+}$*geb-*
VI C□C- $^{+}$sk□ka- 'shake'	*a*F C*a*C- $^{+}$*skak-*	*o*L C$\bar{o}$C- $^{+}$*sk*$\bar{o}$*k*-	*o*L C$\bar{o}$C- $^{+}$*sk*$\bar{o}$*k*-	*a*F C*a*C- $^{+}$*skak-*

* See Mailhammer (2007a: 55; 2007b: 88). F = full grade, Z = zero grade, L = lengthened grade; C = consonant, R = sonorant, the zero grade in classes III and IV surfaces as *u*R, according to the rule Proto-Indo-European $^{+}\underset{\circ}{\text{R}}$ > Proto-Germanic $^{+}$*u*R.

stem formation in which they are concomitants of other morphological properties and not for a particular verb where they express grammatical categories. In fact, crosslinguistically, only the Semitic languages show a similar connection between ablaut patterns and phonological root structure.

2.3 Uniformization of stem formation in the Germanic strong verbs

The system of ablaut classes operating with a functionalized ablaut is crucially connected to another morphological process referred to here as uniformization of present tense stem formation. It complements the functionalization and systematization

of ablaut to the effect that the strong verbs appear as such a rigidly ordered and uniform system. The term *uniformization* is used here in the sense of van Coetsem (2000: 182) as referring to reducing the number of "categorical distinctions" rather than the number of exceptions.

For Proto-Indo-European some 20 different morphological rules to form the present tense stem are commonly reconstructed, all of which have to be considered equivalent in function (see e.g. Rix & Kümmel 2001: 11; Ringe 2006: 151). Of these four at most are found among the Germanic strong verbs. 90% of the strong verbs exhibit only one inherited type of present tense stem formation. This situation is the result of a massive streamlining process that ruthlessly transformed aberrant present stems, changing their root structure to conform to the dominant type. In addition, in some cases the root-final consonants of past tense forms were altered to match the allomorphic distribution required by Verner's Law. This process of *normalization* affected a considerable number of roots. Mailhammer (2007a: 126–127) identifies 64 cases alone in which an aberrant zero grade present formation was regularized with or without streamlining of the past tense stem. This accounts for about 13% of the entire corpus, and this does not even include the large number of milder cases of transformation, such as simple thematization.

The drastic nature of this regulatory process and its uniqueness among the Indo-European languages have been recognized in the literature (see e.g. Bammesberger 1986: 35–37; Prokosch 1939; 149; Ringe 2006: 174–176), even though its extent has only become clear in recent years (see Mailhammer 2007a: Chap. 2 for details). However, no attempt has been made to explain this far-reaching and extensive development; existing accounts are purely descriptive.

2.4 Reduction of verb categories

In contrast to the parent language, Germanic displays a greatly reduced system of verbal categories alongside a significant re-interpretation of their semantic values. Table 3 shows the consensus TAM system of Proto-Indo-European.

Proto-Germanic loses the shaded categories completely and almost without morphological traces, though the aorist and the subjunctive are represented semantically by the new Germanic preterit (formally the inherited perfect, see below) and the new Germanic subjunctive (formally the inherited optative).[6]

---

6. We thank Eugen Hill (p.c.) for pointing out that the forms of endings of the weak preterit point to either an aorist or an imperfect. We find the reconstruction of an original imperfect formation in Hill (2010) more convincing. However, even if it is incorrect, the development of the weak preterit could have occurred before the proposed contact with Punic so that its forms

Table 3. The basic active verbal system of Proto-Indo-European (adapted from Tichy 2004: 83)

	Mood	Tense			
Aspect			imperfective	perfective	imperfective
		present	ind. pres.	–	ind. perf.
		preterit	imperfect.	ind. aor.	pluperfect.
		unspecified	inj. pres	inj. aor.	inj. perf.
	imperative		ipt. pres.	ipt. aor.	ipt. perf.
	potentialis		opt. pres.	opt. aor.	opt. perf.
	expectative		subj.pres.	subj. aor.	subj. perf.

It has traditionally been assumed that the Germanic preterit shows remnants of the aorist in its endings, but this has been shown to be unnecessary, although some endings in the Germanic preterit have not been satisfactorily accounted for. Generally, there is consensus on the loss of the imperfect and the aorist in Germanic as categories (Ringe 2006: 157; Tichy 2004: 92).

As becomes clear from Table 3, Germanic transforms the aspectual system of Proto-Indo-European into a basically temporal system. The aspectual pole of the aorist was lost completely. The reinterpretation of the perfect as a past tense resulted in the loss of aspect as an inflectional category. The fundamental opposition between present and past tense is paralleled on the modal level by the contrast between indicative and subjunctive. In addition, the imperative is the only modal category that exclusively exists on the temporal level of the present tense.

Although most Indo-European daughter languages display changes on the categorial level, the practically traceless loss of the imperfect and the aorist is a remarkable and possibly unique phenomenon.[7] For instance, even in Hittite, whose verb system is also reduced in comparison with that reconstructed for Proto-Indo-European, the aorist has left its marks (Jasanoff 2003: 218–223), and the merger of the aorist and perfect in Italic, another language that has lost the aorist as a category, is apparent (Narten 1973).

The categorial development of the Germanic verb has not been sufficiently explained from a language-internal perspective. The most peculiar phenomena are clearly the disappearance of the aorist and the re-interpretation of the perfect as a past tense. Neither has been convincingly explained in the literature. Even though the change from a stative to a past tense is possible, there are other developments

were no longer associated with the aorist or the imperfect, both of which were then lost without trace as a result of the contact.

7. Juge (2009) discusses category loss in general and concludes that contact-based explanations are more likely to be cogent than for instance internal teleological explanations.

that are at least as plausible. For example, the Germanic preterit presents illustrate a language-internal alternative.[8] Moreover, in order to explain a development, it has to be demonstrated why it occurs, instead of merely stating that it is common or natural. Ringe's (2006: 153–157) account is a step in the right direction, even though it ultimately falls short of an explanation, as it lacks sufficient empirical support. The Latin and Greek developments Ringe adduces as supporting evidence for the shift of the perfect to past tense in Germanic are not obviously connected chronologically to what happens in Germanic. This is because these languages are not parent languages of Germanic, though they are attested earlier. They may show that the perfect was headed in the direction of a past tense in some Indo-European languages, which suggests that the shift in Germanic is conceivable. However, it is well known from cross-linguistic evidence that such a development is common (see e.g. Dahl 1985), and thus offers at best indirect support. It is unknown what happened in the development of pre-Germanic.

Especially in comparison with Latin, Greek and Slavic, it becomes clear that the functional shift of the Proto-Indo-European perfect in Pre-Proto-Germanic is only one of several possible developmental paths for the perfect. As a matter of fact, these cases decrease the probability of the traditional explanation, that a re-interpreted perfect (as a past tense) and the aorist "became isofunctional in pre-PGmc" (Ringe 2006: 157), which led to the complete replacement of the aorist by the new past tense, similarly to the replacement of the preterit by the perfect in varieties of Modern German. This is because the resultative perfect of late Classical Greek and the *perfectum* of Old and Pre-Classical Latin as well as of Oscan and Umbrian (Buck 1904: 169–173), none of which have a past tense value, are contemporaries of the Germanic preterit. Hence, one would have to assume that the Proto-Indo-European perfect had developed much faster in Germanic than in those other languages, which is not implausible in itself, but it is apparent that Greek and Italic can offer no support for the traditional explanation of the aorist's disappearance in Germanic. In fact, according to these and other contemporaneous languages the perfect was probably only on its way to becoming a past tense, but it had by no means assumed this functional value yet, which makes an early shift in Pre-Proto-Germanic appear even more unmotivated.

In addition, it seems to have gone unnoticed that the assumed past tense value of the Pre-Proto-Germanic perfect cannot explain why the aspectual function of the aorist – in fact all other forms associated with an aspectual system, such as the

8. Randall & Jones (2014) propose that all Germanic preterit presents go back to stative and not perfect formations. Even though their account is convincing, the development from resultative-perfect to present is of course possible and not infrequent.

imperfect – were lost too, and why aspect as a grammatical category was given up in favor of a temporal and modal contrast. It is conceivable that the perfective function of the aorist could have remained even if the perfect had taken over the expression of a past tense. Such TAM constellations with an underspecified past tense and an aspectually specified past tense exist; a case in point is the Australian language Iwaidja, which possesses a specified imperfective tense and an aspectually underspecified anterior past tense (Caudal, Mailhammer & Bednall 2019). While it is obvious that perfectivity cannot be expressed with reference to the time of utterance, a non-past referential or unspecified (perfective) aorist could have come to express a variety of alternative readings (see Mailhammer 2009 for the range of perfective readings in Amurdak, an Australian indigenous language).

3. Syntax

The syntax of Proto-Germanic is in large measure that of late Proto-Indo-European, except that the reduction of case morphology (see e.g. Bammesberger 1990) and the loss of half the verbal categories have induced a tendency toward analyticity: verbal periphrasis gradually reintroducing temporal and modal distinctions, and an increased use of adpositions compensating for the decrease of case distinctions. These changes are noteworthy, and we discuss some of them in Chapter 6. But they are not entirely unexpected, as some of them also occur in other Indo-European languages, even though in most of them to a lesser degree.

However, there is one syntactic domain in which Germanic differs significantly from all other old Indo-European languages and the reconstructed parent language, so that a major change needs to be explained: That domain is word order, specifically the position of the finite verb. The change, which distinguishes the Germanic languages from all other Indo-European branches to the present day, is noticeable in all sufficiently well attested Old Germanic dialects and must therefore, according to the rules of reconstruction, be posited for Proto-Germanic. We therefore disagree strongly with Ringe's (2006: 211) statement: "It seems clear that no major syntactic changes occurred in the development of PGmc". In his book, Ringe identifies all properties of Proto-Germanic syntax with those of Proto-Indo-European. However, Ringe singles out one exception: the development of prepositions. We agree that this is, indeed, no "little change", and would add that this is rather an explanandum of the highest order: Adpositions are heads of the adpositional phrase, and therefore prepositions are disharmonious with head-final syntax; since new prepositions typically derive from heads of prepositional phrases (e.g. Engl. *because of*) and from participles (e.g. Engl. *according to*), they do not normally arise in an SOV language

by internal development. It follows either that Proto-Germanic had changed its word-order type away from SOV or that the language had been exposed to contact with a non-head-final language – or both, in which case the contact would have to be considered causal for the word order change.

3.1 Proto-Indo-European word order

Specialists are divided over the basic word order of Proto-Indo-European. The two main reasons are that the old Indo-European languages (a) each show significant variability in their placement of syntactic constituents, including the position of the finite verb, and (b) that the old Indo-European languages show a geographically graded preference for the placement of the finite verb, tending to place it toward the end of the clause in the east (Sanskrit, Hittite) and tending to place it farther toward the beginning of the clause as one moves west (Holland 1980), with regular verb-initiality reached in Insular Celtic. Thus, there are those scholars, including even Celticists, who assume the Proto-language to have been predominantly head-final (prespecifying, OV), which includes verb-final placement (SOV language), e.g. Watkins (1964, 1976), Lehmann (1974); Holland (1980); Russell (1995: 302), Fortson (2010: 157), and Ringe (2006: 64); they are clearly in the majority, and we side with them. And there are scholars who assume the proto-language to have been predominantly head-initial (postspecifying, VO), which includes verb-early placement (SVO or VSO language), e.g. Friedrich (1976); Miller (1975).

3.2 Proto-Germanic word order

3.2.1 *Proto-Germanic word order: SOV or SVO?*

Proto-Germanic differs from all other old Indo-European languages by combining word-order features of, and thus belonging to, both types, at least as far as its verb placement is concerned. From Runic evidence, Ramat reconstructs SOV as basic order, although noting the considerable number of counterexamples with SVO order. However, Braunmüller (1982), on the same kind of evidence, reaches a different result. His quantitative investigation shows that two thirds of Runic inscriptios show SVO ordering, and he concludes that this was the dominant ordering already at the oldest stage of Germanic (Braunmüller 1982: 130–140).

3.2.2 *Proto-Germanic word order: V2*

The concentration on runic inscriptions does not, however, by itself yield an accurate impression of Old Germanic word order. The reason is that these inscriptions, which are, as a rule, very short, are in the declarative mood, and devoid of

hypotaxis. Therefore, what Braunmüller has established is really, more specifically, that 'there exist many more than twice as many inscriptions in support of SVO being the dominant/habitual word order *of declarative sentences* already in the earliest attestations of Germanic dialects'. Even this result is in need of interpretation. Braunmüller uses "SVO" as a cover term for patterns that are not SOV (or VSO). In particular V2, i.e. the verb-second placement well known from declarative sentences in Contemporary Standard German and indeed in all Germanic languages except English, falls under Braunmüller's "SVO". No Germanic language is, or has ever been, an SVO language in the strict sense of regular subject-verb arrangement, except for English where this is an innovation only beginning to develop in Old English, as we will see. Therefore, what we learn from Braunmüller's counts is that 'there exist many more than twice as many inscriptions in support of V2 being the dominant/habitual word order *of declarative sentences* already in the earliest attestations of Germanic dialects'. However, since this dominance of V2 in declarative sentences holds for both North Germanic and West Germanic (and also for Gothic, even though the texts, being almost exclusively translations, may not count as very strong evidence), the rules of reconstruction require that it be attributed to Proto-Germanic. This conclusion is supported by more recent research (Eythórsson 1995; Ringe & Taylor 2015; Walkden 2014).

Closer examination of the early Germanic languages (Eythórsson 1995; Eythórsson 1996; Eythórsson 2001; Ferraresi 2005; Axel 2007; Walkden 2009) has provided strong empirical evidence for verb movement to C (possibly alongside a lack of such movement) in all the early Germanic languages, and thus the status of V-to-C as a Proto-Germanic innovation now seems far more secure (Eythórsson 1995: 395; Sundquist 2006: 108–109; Holst 2010: 149–150; Salaberri 2017: 233).

3.2.3 *Proto-Germanic V1*

While the clause-final position of the finite verb clearly remained a possibility in declarative sentences in all early Germanic languages and hence in Proto-Germanic, it is worth mentioning that the forward "movement" of the finite verb does not exclusively target the second position but may also result in V1, the sentence-initial position (Ringe & Taylor 2015: 396). They occur rarely in the early runic inscriptions, probably no more than 10% (Braunmüller 1982: 141–142), but also in Old Norse, Old English, Old High German, and Gothic prose. And V1 is the norm in imperative and interrogative (decision or yes-no question)[9] sentences in all early

9. Also, in the un-introduced protasis of conditional sentences with their affinity to interrogative sentences: English *Had he arrived on time* (= *If he had arrived on time*)*, he would have been admitted.* German *Kommt er auch* (= *Wenn er auch kommt*)*, dann gehe ich* 'If he comes too, I will leave'; cf. *Kommt er auch? Dann gehe ich* 'Will he come too? Then I will leave'.

Germanic languages and hence in Proto-Germanic. The correct interpretation for the development of the verb position in sentences to us therefore seems to be the following: The normal position of a finite verb in a sentence (main clause) is no longer the end but the beginning of the clause, i.e. V1, except that the universal tendency to begin an utterance with an expression for the topic leads to a contrary tendency to place topical expressions before the finite verb, i.e. V2, in wh-question sentences, where the wh-word is automatically topical, and in declarative sentences. This is not a novel insight (see Vennemann 1974: 360). Within the type of TVX languages, i.e. VX languages in which not only the subject but other topical elements may precede the finite verb, we can distinguish two subtypes, the verb-after-topics type and the verb-second type. The latter seems to develop from the former by a generalization of the post-topic pattern with only one topic, which is probably the dominant pattern anyway. The SVX type seems to develop from either sub-type by a limitation of the first (or only) preverbal terms to subjects, subjects being the primary topics (Vennemann 1974: 360, 361).[10]

This distribution, in which tendencies are recognizable for the early Germanic languages, have become the grammatical norm in all modern Germanic languages, except for English which is unique by fixing the order of the subject nominative S and the finite verb V in the order SV (see e.g. Vennemann 2015a with references).

3.3 Proto-Germanic split word order: V1/V2 vs. V-late

As is well known, this is still not the whole story about the change of the finite verb position from Proto-Indo-European to Proto-Germanic. As Braunmüller (1982: 144) points out, SVO did not in all cases become the only licit ordering, as can be seen from SOV in subordinate clauses not only in e.g. Old English and Old High German but also in Modern German. More recent studies have also shown that pragmatic and discourse factors played a role in determining word order (see e.g. Cichosz 2010; Cichosz, Gaszewski & Pęzik 2016; Salaberri 2017). However, this does not concern the issue itself, namely that word order was not uniform and that V-late is conservative (Salaberri 2017: 233).

---

10. Holst (2010) assumes first a change to VSO, then a conditioned further change toward V2. But it can be shown that his very claim of VSO as an intermediate stage in the Germanic development to V2 is problematic. Older Germanic showed a tendency toward verb initiality, but never toward VSO. Not only subordinate clauses, but also interrogative, imperative, and declarative clauses remained SOV – except for the position of the finite verb. This was so in Old English and Old High German, and it is still so in Contemporary German, as shown in the following section. Hence there is no evidence for such a two-step development.

Similarly, for Old Norse too the case has been made that there was a distinction between V2 in main clauses and V-late in subordinate clauses (see Þorgeirsson 2012: 233 for poetry; and Ramat 1981: 198 for prose). However, Ringe & Taylor (2015: 396) claim that such a differentiation did not exist in Old English. We do not agree with this assessment of Old English. As a matter of fact, the distinction between V2 in the main clause of declarative sentences and V-final (more precisely: V-late, i.e. V-later-than-2) in subordinate clauses – the *split word order* – is clearly recognizable in original Old English prose, despite a measure of variation. Sentences like the following are the most normal type, absolutely inconspicuous; the finite verb is in second position in the main clause of this declarative sentence, and in the final position in the subordinate clause:

(7) Old English (Orosius, Bately 1989: 13–14)

Ohtere	sæde	his	hlaforde […]	þæt	he	ealra	Norðmonna
*Ohtere	told	his	lord	that	he	of all	Northmen
Ohtere	sagte	seinem	Herrn	dass	er	von allen	Nordleuten
norþmest		bude.					
northmost		dwelled.					
am nördlichsten		wohne.					

As one can see, the Old English word order deviates considerably from that of Contemporary English but coincides with that of Contemporary German, which is the textbook case for the Germanic split word order, one of the hallmarks also of Old English. The functionality of the Germanic split word order is especially evident in complex sentences with so-called correlating coordinations, such as Old English *þa …, þa …* (Old High German *tho …, tho …*) 'when …, then …', as opposed to the paratactically used adverbials *þa …; þa …* (Old High German *tho …; tho …*) 'then …; then …'. We first illustrate the latter case:

(8) Old English (Orosius, see Bately 1989: 14)

Ða	læg	þær	an	micel	ea	up	on	þæt	land.	Ða	cirdon	hie
*Then	lay	there	a	great	river	up	in	that	land.	Then	turned	they
Dann	lag	dort	ein	großer	Fluss	oben	im		Land.	Dann	drehten	sie
up	in	on	þa	ea.								
up	into		the	river								
aufwärts	in		den	Fluss.								

Here the twofold use of V2 idicates the coordination of the two clauses as two declarative sentences, exactly as in the German translation. The next example illustrates the complex sentence with correlating conjunctions in Old English and in Old High German:

(9) Old English (Orosius, see Bately 1989: 14)
Đa he þiderweard seglode fram Sciringesheale, þa wæs him on
*When he thither sailed from Sciringesheal, then was to-him on
Als er dorthin segelte von Sciringesheal, da war ihm auf
þæt bæcbord Denamearc.
backboard Denmark
Backbord Dänemark.

(10) Old High German (Otfrid III.2.31, cf. Wolff 1965)
tho sibunta zit thes dáges was, …, tho ward er
*When seventh hour of-the day was, … , then became he
gánzer gahun.
healthy quickly

Here the finite verb is in later-than-second position in the first clause, marking it as a subordinate clause, the protasis of the complex sentence, while the finite verb is in second postion in the second clause, marking it as an independent clause, the matrix clause or apodosis.[11] This device has, of course, become unavailable in the history of English as the difference of verb position in main and subordinate clauses was given up; but in German the difference between V2 and V-final is still fully functional:

(11) Modern German
a. Man nahm Roderich das Bier weg, **da** **wurde** er krank.
They took Roderich the beer away, thereupon became he ill
'They took away the beer from Roderich, thereupon he fell ill.'
b. Man nahm Roderich das Bier weg, **da** er krank **wurde**.
They took Roderich the beer away, because he ill became
'They took away the beer from Roderich, because he fell ill.'

The difference between subordination and coordination with its entailed semantic difference ('nevertheless' vs. 'even though') rests entirely on the word order difference between V2 and V-final.

It must be emphasized that it is really only the position of the finite verb which makes this difference between main clause (V1/V2) and subordinate clause (V-late, V-final). The rest of the clause in general remains untouched by this difference: It does not rearrange toward head-initiality but retains the inherited SOV pattern, as if the finite verb had not moved. This is most easily demonstrated with examples

11. The German rendering is grammatically correct, though stylistically awkward. A better translation would be 'Als er von Sciringesheal aus dorthin segelte, lag auf seiner Backbordseite Dänemark.'

from Contemporary German, because here the old tendencies have become strict grammatical rules. We number the constituents to show their order of application to the finite verb, the innermost head, underlining the number of this head and of its immediate specifier (see Vennemann 2015a for the notation with numbers indicating the categorical construction of a clause, and for a definition of the specifier-head relation). The examples translate 'the millionaire has donated large amounts to his university' as subordinate clause (a), interrogative clause (b), and declarative clause (c).

(12) Modern German

a.	(dass)	der	Millionär	seiner	Universität	große	Beträge	gespendet hat
		4		3		2	1	0
b.	Hat	der	Millionär	seiner	Universität	große	Beträge	gespendet?
	0	4		3		2	1	
c.	Der	Millionär	hat	seiner	Universität	große	Beträge	gespendet .
	4	0		3		2	1	

We find the same patterns, though often less strictly obeyed, in Old English and Old High German:

(13) Old English (Orosius, see Bately 1989: 92–93)

*But	to-him	had	the	Carthaginians	the	way	blocked
Ac	him	hæfdon		Pene	þone	weg	forseten.
Aber	ihm	hatten	die	Karthager	den	Weg	verlegt.
	3	0		4		2	1

(14) Old High German (Second Merseburg Charm, see Braune 1962: 89)

*Then	was	to-the	horse	of-Balder	its	leg	sprained
Du	uuart	demo	Balderes	uolon	sin	uuoz	birenkit.
Da	wurde	dem	Pferd	Balders	sein	Bein	verrenkt.
4	0			3		2	1

The pair numbered 0 and 1 is called the sentence brace (*Satzklammer*) in German grammar. As the examples show, German has preserved the sentence brace to the present day, whereas English has given it up in favor of the order subject first, then the sequence (or a sequence close to) 0 1 2 3 etc., except for remnants such as the obligatory embraciation of object pronouns by phrasal verbs such as *to lock out*, e.g. *They locked us out* (**They locked out us*).

4. Issues in the oldest Germanic writing system

The Germanic people possessed an alphabetic writing system of twenty-four letters, the so-called futhark, attested in inscriptions the oldest of which that have been discovered so far date back to the second, possibly to the first century CE. This writing system is alphabetic in the sense that it uses letters for individual speech-sounds rather than for other structural units, such as syllables or words. It is called *futhark* (also spelled *fuþark*) since it begins with letters for the speech-sounds /f/, /u/, /þ/, /a/, /r/, and /k/, where *þ* represents the symbol used in Germanic studies for [θ], the *th* sound as in *thing*, *ether*, and *path*. It is also called the *older* (or *elder*) futhark because there exists a younger variant (called the *younger futhark* or the *Scandinavian runes*) with sixteen letters developed from the twenty-four letters of the older futhark around 800 CE, at the beginning of the Viking age.

The order of the letters of the older futhark is well known, because it is attested in several complete and some incomplete listings, the oldest, on the Kylver stone, found in a cemetery near on the Swedish island of Kylver in 1903, dating from ca. 400 CE, see Figure 1.

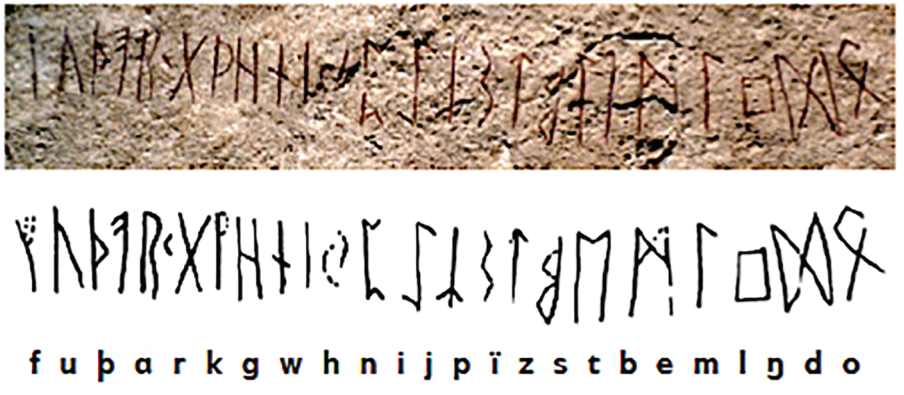


Figure 1. *The Kylver stone futhark* (photo with permission from Dr Joachim Henkel's Internet site "Runen – Runenreihen – Futhark", hand-drawn image from Düwel 2008: 3; after Liestøl 1981: 247)

Compare also the somewhat idealized "textbook" presentation in Figure 2.

Figure 2. The older futhark (after Düwel 2008: 2)

These runes and the writing system based on them have a number of peculiar properties whose explanation is generally considered difficult. As a consequence, the questions of how this system arose, or where it came from and how it first got to Scandinavia, have no generally accepted answer. Since the futhark bears an obvious relationship to the Greek, Etruscan, and Latin alphabets, as well as to their source, the Phoenician alphabet, there cannot be any doubt that the futhark somehow has its roots in the south. But the questions of how it came to, or developed in, the north, and why at such an early date, namely in the final centuries BCE, judging by the fact that it is used in its fully developed, mature form no later than in the first centuries CE, are the most controversially disputed ones in the entire academic discipline of runology.

Several theories of the origin of the futhark have been proposed (see especially Arntz 1944; Krause 1966; Krause 1970; Krause 1971; Odenstedt 1990; Looijenga 2003; Düwel 2008; on writing systems more generally see Jensen 1969; Coulmas 1996; Daniels & Bright 1996; Haarmann 2011); the most widely accepted ones being the following three:

I. the Greek Thesis
II. the Etruscan Thesis
III. the Latin Thesis

Here the theory of an Etruscan origin includes as possible sources a number of so-called "Alpine" alphabets used to the north of the Etruscan territories and obviously derived from the Etruscan alphabet in the narrower sense.

All three theories acknowledge that the ultimate source of the futhark, as of all Western alphabets, is the Canaanite alphabet carried to Europe by the Phoenician traders. That is not the question. The question is what the *direct* source of the futhark is, and it is that question which is meant to be answered by these three theses.

That several mutually exclusive theories co-exist for decades and are each supported by highly respected scholars all over the world is a peculiar situation. These scholars do not seem to be worried by the fact that a large number of them, possibly as many as two thirds, entertain a theory different from, and irreconcilable with, their own. The situation may even be worse than that: Several mutually exclusive theories cannot all be correct, but they can all be incorrect. And the likelihood that this is the case in this instance is quite great, because all of these theories – as well as their minor variants – leave a large number of important questions unanswered, among them the following eight.

1. Why do the runes have names that are common nouns with a regular meaning outside the writing system? More specifically: Why is the futhark semantically acrophonic?

It is not known how the Etruscans referred to their letters. Perhaps they named them as the Greeks did, perhaps they simply named them by pronouncing their sound values, as the Romans did and as speakers of English and German and of most other European languages still do: [ei] or [a:] for *A*, [bi:] or [be:] for *B*, etc. The Greek letter names are *Alpha*, *Beta*, *Gamma*, *Delta*, *E* (viz. *E-psilon*, *ἔψιλον*, i.e. *ἒ ψιλόν* 'simple *e*'), etc., which are simply the Semitic names adapted to Greek word structure. The Greek letter names have no meaning in Greek, except as designations of the letters. The Phoenician letter names were probably something like +*'Alp*, +*Bet*, +*Gaml*, +*Dalt*, +*He*, etc. (Jensen 1969: 271–271; Brekle 1994: 94–103), but since they have not been handed down to us, it is customary to use the Hebrew names *'Aleph*, *Beth*, *Gimel*, *Daleth*, *He*, etc. instead . That the Phoenician names were nearly identical to the Hebrew ones is evident from the fact that the Greek names, borrowed from the Phoenicians together with the entire writing system, are quite similar to the Hebrew ones.

Both the Greek and the Semitic letter names abide by the *acrophonic principle*, i.e., the sound value of the letter is the initial sound of the letter name; e.g. both Greek Beta and Hebrew Beth have the sound value [b], the initial speech-sound of the letter names. But there is an important difference between the Greek and the Semitic letter names: The acrophony of the Greek letter names is purely *phonetic*, as the letter names have no meaning except for referring to the letters they name. By contrast, the acrophony of the Semitic letter names is *semantic*: The letter names, besides referring to their letters, have meanings outside the writing system. This can be illustrated with three of the first five letters: *'Aleph* means '(head of) cattle', *Beth* 'house', *Daleth* 'door'. For some letters the name is somewhat uncertain: e.g. the meaning of *Gimel* is 'camel'; but that may simply be a folk etymology, and the meanings of *He* and six of the letters following *He* are uncertain (cf. Jensen 1969: 272). However, this does not negate the fundamental difference between the Semitic and the Greek alphabet in this respect.

The names of the runes are also semantically acrophonic, exactly as the Semitic letters, and the meaning of the first letter is even identical: The name of the **f** rune (runes are usually transliterated with boldface Latin letters), +*fehu*, means 'cattle'. Other examples are the name of the **u** rune, +*ūruz*, meaning 'aurochs' and the **a** rune, +*ansuz*, meaning '(a) god', also, specifically, a member of the +*Ansuz* family of deities. This is continued in the Germanic daughter languages. The names and meanings for the runes are listed in Table 4.[12]

12. Two of the runes, no. 15 **z** +*algiz* and no. 22 **ŋ** +*ingwaz*, could not be named acrophonically because Proto-Germanic *z* and *ŋ* did not occur word-initially. Hence **z** was named telicophonically; *telicophonic* means 'focusing on the end of words', Greek *τελικός* (*telikós*) 'final', *φωνή* (*phōnḗ*)

Table 4. The runes of the older futhark, their transliteration (suggesting their phonetic values), and their names (with meanings), cf. Düwel (2008: 198–199)*

Number	Rune symbol	Transliteration/ sound value	Rune name	Gloss
1	ᚠ	f	+*fehu*	'cattle'
2	ᚢ	u	+*ūruz*	'aurochs'
3	ᚦ	þ	+*þurisaz***	'giant'
4	ᚨ	a	+*ansuz*	'god (of the Æsir family)'
5	ᚱ	r	+*raidō*	'ride, wagon'
6	ᚲ	k	+*kaunan*	(?) 'abscess, illness'
7	ᚷ	g	+*gebō*	'gift'
8	ᚹ	w	+*wunjō*	(?) 'bliss'
9	ᚺ	h	+*haglaz*	'hail (meterol.)'
10	ᚾ	n	+*naudiz*	'need, destiny'
11	ᛁ	i	+*īsaz*	'ice'
12	ᛃ	j	+*jēran*	'year'
13	ᛇ	ï	+*īwaz*	'yew'
14	ᛈ	p	+*perþō*	(?) 'a fruit tree'
15	ᛉ	z	+*algiz*	'elk ['repulse, parrying'?]
16	ᛋ	s	+*sōwilō*	'sun'
17	ᛏ	t	+*tīwaz*	'Tyr (a war god of the Æsir)'
18	ᛒ	b	+*berkanan*	'birch'
19	ᛖ	e	+*ehwaz*	'horse'
20	ᛗ	m	+*mannaz*	'man'
21	ᛚ	l	+*laguz*	'water'
22	ᛜ	ŋ	+*ingwaz*	'god of the fertile year'
23	ᛟ	o	+*ōþalan/ ōþilan*	'inherited real estate'
24	ᛞ	d	+*dagaz*	'day'

* We have changed the relative order of the two final runes against the Kylver stone and against Düwel into the more commonly cited order **⟨o d⟩**, just as Düwel has changed the Kylver order of **p** and **ï** into the more common **⟨ï p⟩**. We will return to this ordering problem in Chapter 7.

** The Scandinavian name of the **þ** rune, reconstructed as Proto-Germanic +*þurisaz*, means 'giant', its Old English name, reconstructed as Proto-Germanic +*þurnaz*, means 'thorn'.

In contrast to Germanic and Phoenician, but also to Greek, the letter names in Latin (and probably also in Etruscan) and in the West European languages using Latin letters are not even genuine words but merely attempt to suggest (one of) the sound values of the letters, sometimes acrophonically, e.g. English [bi:] for *b*, [si:] for *c*, [kei] for *k*, sometimes telicophonically (the sound the letter stands for occurs

'voice'. And **ŋ**, not occurring word-finally either, was named mesophonically; *mesophonic* means 'focusing on the middle of words', Greek *μέσος* (*mésos*) '(in the) middle'.

at the end), e.g. [ɛf] for *f*, [a:r] for *r*, [ɛks] for *x*. Because none of the alphabets traditionally seen as possible sources for the futhark are semantically acrophonic, the three traditional theses are unable to explain the semantic acrophony of the runes.

2. Why does the runic alphabet (the futhark) begin with **f** instead of **a**?

In Greek, Etruscan, and Latin, as in almost all other alphabets, the row of letters begins with *A*. The three traditional Theses offer no solution for this discrepancy.

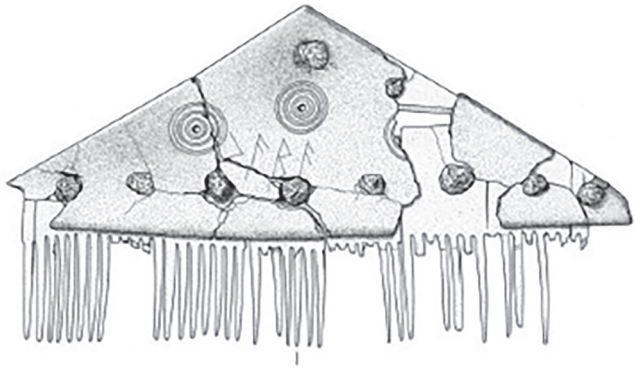
3. More generally, why does the runic alphabet begin the way it does (with **f u þ a**)?

The Greek alphabet begins with A, B, Γ, Δ (Alpha, Beta, Gamma, Delta), the Etruscan alphabet with A, (B), Γ, (Δ), and the Latin alphabet with A, B, C, D. The three traditional Theses do not offer any suggestions on this matter.

4. Why do the rune carvers usually write single consonants for geminates, even across word boundaries?

This writing rule is treated in all handbooks. For example, the inscription on the Norwegian Stenstad stone reads **igijon halaz** 'Igijo's stone', with *halaz* for *⁺hallaz*, Old Norse *hallr* 'stone' (Arntz 1944: 78–79). In Greek, geminates were regularly spelled by doubling the consonant symbol from the 5th century BCE onward, in Latin from the 2nd century BCE. Etruscan only writes double consonant symbols occasionally, even though there is some evidence that the language had phonemic geminates (Pfiffig 1969: 49). This may be taken as an argument in favour of the Etruscan Thesis. However, whereas Etruscan writes geminates with double graphs at least some of the time, Runic Germanic never does.

5. Why do the rune carvers usually not write nasal consonants before consonants? E.g., on the Norwegian Tørvika A rune stone, it says **ladawarijaz**; this is interpreted as *landa+warijaz* 'land-guardian' (Spurkland 2005: 9), see also Figure 3. Greek, Etruscan, and Latin usually do express nasal consonants before consonants, which suggests that the Germanic custom is unlikely to have come from there.



Inscription (discovered 2011): ᚲᚨᛒᚨ **kaba** (for *kamba* 'comb')

Figure 3. The comb of Frienstedt (Erfurt), late 3rd century CE[13]

6. Why are there runes for the semivowels, *w* and *j*?

Greek, Etruscan, and Latin have no special symbols for the semivowels.[14] Furthermore, those semivowels are considered mere positional allophones of the vowels *u* and *i*. The question therefore is, why does the futhark have letters for these speech-sounds? The three traditional theses provide no answer.

7. Why is there a rune for the non-phonemic *ŋ*?

Greek, Latin, and Etruscan have no special symbol for *ŋ*. And from a phonemic perspective they did not need one (just like Germanic) because *ŋ* was but a positional allophone of the nasal phonemes preceding velar consonants. The Greeks wrote *γ* (gamma) for *ŋ*: e.g. *γκ* for [ŋk] and *γγ* for [ŋg]; and the Romans, *n*: e.g. *nc* for [ŋk] and *ng* for [ŋg]. Etruscan has *m* and *n* before velar plosives, e.g. *Jamce* 'he built', *śancve* 'consecrated, sanctified' (Pfiffig 1969), but the positional pronunciation of *n* is not known. In any event, the three traditional theses provide no model or explanation for the Germanic **ŋ** rune.

8. Why have most of the early runic inscriptions been found in Denmark?
   The three traditional theses do not answer this question. History knows of no special prehistoric or early historical contacts of Denmark with Greece, Italy, or the Alps, by-passing the huge Celtic, German, and Baltic territories in between.

---

13. With thanks to Klaus Düwel, University of Göttingen (e-mail-communication of 19 April 2012).

14. Greek had inherited a semivowel /w/. But it was lost so early that its letter (digamma, *F*) was abolished in Athens in the year 403 BCE. Cf. the Internet site "Digamma".

As has become clear from this overview, the three traditional theses do not answer these elementary questions, and are consequently of little value as attempts to explain the immediate source of the futhark, especially since they are all incompatible with each other. This situation is in fact stifling progress towards solving the pivotal problems connected to the direct origin of the futhark. In our view, this more than justifies opening up a fresh perspective that begins with these eight problems in order to break the deadlock and develop a specific hypothesis on how the Germanic runes came into being.

5. Summary of explananda in Proto-Germanic

The preceding sections have outlined our motivation for seeking an alternative account to a purely language-internal motivation for some of the pivotal problems in the lexicon, the verb morphology, the syntax and the writing system of Proto-Germanic. In Section 1, we drew attention to the fact that a significant proportion of the Germanic lexicon, possibly 50%, has no accepted etymology. In addition, a good deal of the problematic vocabulary comes from semantic fields typical for superstratum influence. Section 2 argued that there are serious issues with a language-internal development of the Germanic strong verbs. The key points here were the functionalization and systematization of ablaut, the uniformization of present tense stem formation and the radical simplification of the TAM system. In Section 3 we pointed out that the Proto-Germanic word order with V2 or V1 in main clauses and verb-final in subordinate clauses is an innovation that has not been explained. Section 4 posed some critical questions about the origin of the Germanic writing system that existing theories have been unable to answer.

CHAPTER 2

Theoretical foundations

1. How we look at contact-induced change

Contact-induced language change is language change that is dependent on at least some speaker having been exposed to primary linguistic data from another language (Lucas 2014: 521).

Contact-induced change presupposes at least a minimal degree of bilingualism.[15] In conceptualizing and categorizing the different types of bilingualism we follow the dominance-based model proposed in Coetsem (2000), which is in line with current approaches (see e.g. Lucas 2014; Matras 2009; Winford 2005).

In his model, van Coetsem distinguishes a *recipient language* from a *source language*. This terminology is also indicative for the direction of influence: The source language always influences the recipient language. However, the pivotal factor determining the outcome of change is which of the two is active during the process of contact.[16] The active language is generally the dominant language, and dominance reflects proficiency (Coetsem 2000: 52). Van Coetsem (2000: 52) explicitly states that proficiency is not the same as nativeness.[17]

Van Coetsem's model separates the dominance relationships and the resulting cases of agentivity from the operations that occur in these situations. An active source language will more strongly determine how the recipient language will be influenced through the contact. Conversely, an active recipient language will determine how the source language items will be influenced in a contact situation. Van Coetsem's term for source language agentivity is imposition, that for recipient agentivity is borrowing, and we will follow him in using these terms here. The typical imposition case is second language learning or language shift, whereas the typical borrowing case is if a language acquires loanwords from another language.

---

15. In this book we use the term *bilingualism* to include multilingualism unless we specifically differentiate the two.

16. It is perhaps a somewhat unfortunate metaphor to call a language "active", given that languages generally cannot act, but we keep the terminology for sake of consistency with the theoretical model.

17. Matras (2000: 577) uses the term "pragmatic dominance", i.e. "the language which, in a given moment of discourse interaction, is granted maximum mental effort by the speaker".

With high levels of bilingualism and a long period of contact the cognitive dominance of one language can be neutralised, which effectively effaces the difference between borrowing and imposition (Coetsem 2000: Chap. 8; Winford 2003: 99–100).

Bilingualism can be correlated with level of education, language attitudes and identity as further factors. One illustrative example is the integration of Medieval French loanwords into English as opposed to German. Whereas English largely applies a left-bound stress pattern as inherited from Proto-Germanic, German adopts the foreign right-bound pattern. Lutz (2009) explains this difference as a result of multiple factors, among which the degree of bilingualism and education are pivotal. She comments on the situation in German:

> In medieval and early Modern Germany, French and Latin influence was strong but remained largely restricted to the language of scholars and upper classes, who strove to imitate the accentuation of French and Latin. Both influences can be characterized as cultural borrowing. (Lutz 2009: 302)

By contrast, English was swamped with French loans, which included also basic vocabulary, and thus extended also to the general population (see Coetsem 2000: 218–219, Lutz 2009). In her work Lutz distinguishes "cultural borrowing" from "superstratum influence", which refers to whether an item is transferred because of appeal (prestige) or forced contact, and ultimately reflects speaker attitudes to the languages involved in the contact setting (see Lutz 2008 for a case study of word formation in English and German under contact influence).[18] The more prestige a language has, the more likely it seems that the contact operation is more imitative than adaptive. Anchimbe (2006: 194–195) develops an obvious and direct link between language attitude, imitation and adaptation in his account of the development of Cameroon English. According to this, imitative operations are consistent with favorable attitudes towards the source language under recipient agentivity and the recipient language under source language agentivity. Conversely, adaption is favored if there is a negative attitude towards the source language in the former and towards the recipient language in the latter case. Attitude is closely related to identity, which can be seen as fundamental to shaping and realizing a bilingual repertoire (see Kresić & Roco 2012; see Meakins 2008 for a case study attributing the Australian indigenous features of the mixed language Gurindji Kriol to the maintainance of an indigenous identity).

18. Marc Pierce (p.c.) reminds us that the concept of "prestige" is difficult to pin down (see also Salmons 2015). The way it is used generally in this book is in the sense of "attractiveness" or "appeal" in a social rather than a linguistic sense in order to avoid the problems raised for example in Milroy (2012: 572–575) and also Lutz (2013); see also the extensive discussion in Le Page & Tabouret-Keller (1985: Chap. 5 and 6).

2. Types of contact-induced change and common outcomes

It seems possible that practically anything can be transferred from one language to the other in principle, so that no hard constraints and perhaps no universals of language contact can be proposed which can be used to make a testable prediction or even be the basis of conclusive proof (see especially Thomason 2008: 54). To predict internal language change may be an impossible task but this is probably even harder for contact-induced change because "the availability of at least two distinct and independent linguistic systems greatly expands the immediate possibilities for change" (Thomason 2008: 54). However, there are rough patterns of contact-induced influence and thus generalizations about common outcomes of each of these types of language contact, which will be used here in the reconstruction. And we agree with Matras (2009: 165) in saying it is certainly worthwhile investigating influential factors of contact-induced change, whether they are linguistic or not. The resulting empirical generalizations together can be used to formulate basic expectations about situations of language contact and their linguistic outcomes that have been tabulated in the literature (see e.g. Muysken 2013; Thomason & Kaufman 1988: 50; Winford 2003: 23). It should be noted that these alone do not provide an absolute diagnostic or even proof of language contact (they are necessary but not sufficient conditions, see Thomason 2008: 44), but they are useful for reconstructing scenarios of contact-induced change.

2.1 Common outcomes of RL agentivity

The most common result of recipient language agentivity is the transfer of lexical items, which pertains to actual items or parts thereof (loanwords, matter replication) or their meaning (semantic loan, calquing). Matter replication is particularly frequent even if there is little bilingualism and only casual contact (Lucas 2014: 522). Previous work has identified hierarchies of matter replication, that is, empirical generalizations about what is borrowed most easily, for instance in less intense contact situations with low levels of bilingualism, and these can be further correlated with social situations (see e.g. Matras 2009: 153–165 for a general discussion of borrowing constraints; Winford 2003: 51–53).[19] In terms of word classes, nouns seem to be the most borrowable, followed by verbs and adjectives (Matras 2009: Chap. 7 and 8; Tadmor 2009: 61–63; Winford 2003: 51). With respect to semantic fields, Tadmor's large-scale crosslinguistic study shows that across this sample, "religion" is the most susceptible to borrowing, followed by "clothing and

19. See Vennemann (2011a: 218–220) for a typology of social relationships between languages.

grooming" and "the house" (Tadmor 2009: 64), whereas the domain of "sense perception" contained the lowest proportion of loanwords. This ties in with the notion of basic or core vocabulary, which is said to be "almost immune to replacement via borrowing" (Winford 2003: 53), as opposed to peripheral vocabulary, which is not. It may be noted at this point that it is not unambiguously definable what constitutes core vocabulary, and there are cases like that of Norse loans in English where at least some basic vocabulary was transferred. The Loanword Typology project has compiled a list of basic vocabulary based on the parameters stability, universality, simplicity and resistance to borrowing and finds a preponderance of body part terms, generic terms for animals, actions and basic properties, but also more specific animals, such as 'louse', and a few culturally relevant terms, e.g. 'house', 'name' and 'rope' (Tadmor 2009: 69–71). Despite its tremendous usefulness, even this meticulously assembled list is rather heterogeneous, and cannot define the notion of "basic vocabulary" in categorial terms, which should be borne in mind when assessing arguments based on this notion.

Another generalization that can be extracted from the data and the associated literature is that there appears to be a connection between the social relationship between the recipient and source languages and the semantic domains in which the transfer occurs. Political or military dominance is likely to be reflected by loanwords e.g. from the areas of warfare, government and administration as well as the legal system. Cultural dominance shows up in other areas, such as technology and trade (Lutz 2008). If a language exerts no particular power, then the relevant loanwords are typically from the domains of local flora and fauna, basic vocabulary as well as toponyms. Vennemann (1984) uses these generalizations as a diagnostic for the social constellations in situations of borrowing (recipient language agentivity), and concludes that if some of the etymologically problematic vocabulary in Proto-Germanic does in fact represent borrowings, then the semantic domains from which it is taken would suggest a superstratal source language in contrast to what had been considered in the earlier literature, which had discussed substratum influence, see also Chapter 1 above.

Moving beyond lexical borrowing, the transfer of structural elements under recipient language agentivity usually requires higher levels of bilingualism, as the ability to parse the source language items is necessary in order to transfer structural elements (see e.g. Matras 2009: 219; Thomason & Kaufman 1988: 76; Winford 2003: 30).[20] One consequence of the relationship between the level of bilingualism and the amount and kind of structural transfer in recipient language agentivity is

20. Van Coetsem's framework operates with the notion of the so-called "stability gradient" as a measure of transferability. While this expresses many useful observations, stability may be not the best way to characterize the properties of items that are more resistant to transfer, given that

that in situations involving much grammatical borrowing (equivalent to Level 5 out of 5 on the borrowing scale in Thomason & Kaufman 1988: 74–76), the difference between source and recipient language may effectively be neutralized. Instead, it may be more useful to talk about convergence in situations of a more or less balanced form of bilingualism with agentivity on both sides, as speakers involved are proficient in both the recipient and the source language (see Section 2.3 below). Such a situation is particularly common in later stages of language shift in which the shifting speakers borrow extensively from a source language that they are very proficient in:

> The "native speakers" who initiate the structural changes are in fact also proficient, to variant degrees, in the SL [source language]. The familiarity with the SL allows them to change the RL [recipient language] via imposition or transfer from the former. This would mean that the actual mechanisms or processes by which such structural diffusion occurs are similar to those found in cases of shift or second language acquisition. (Winford 2003: 79–80)

Shift is often accompanied by first language attrition with the source language exercising considerable structural influence on the recipient language, especially after prolonged contact with a politically and/or culturally dominant source language in communities with extensive bilingualism. Cases in point in antiquity are practically all languages of the Roman Empire, most of which show at least some structural influence from Latin. Some were heavily Latinized, for instance Umbrian (Adams 2003: 104), others less so, for example Greek (Adams 2003: 38; Biville 2002: 77) and Punic (Adams 2003: 221–224; Röllig 1980). Conversely, the impact the cultural significance of a language has can be clearly seen from the considerable influence Etruscan, Punic and above all, Greek had on Latin (Adams 2003; Biville 2002; Röllig 1980).

2.2 Common outcomes of SL agentivity

If the source language is active in the transfer process, this commonly leads to the transfer of structural features (pattern replication in the sense of Matras 2009), with or without the transfer of actual material. We are aware that this is a simplification and generalization, and that in more intensive contact situations with widespread bilingualism the lines between source and recipient language agentivity become blurred (see 2.3 below). It is probably impossible to connect source language agentivity "exclusively to any specific type of multilingualism or language contact

syntactic features can be transferred more easily than suggested under this model, especially under source language agentivity (see Lucas 2014: 532–533 for discussion).

situation" (Matras 2009: 237), but, as Matras goes on to argue, situations of second language acquisition are at any rate prototypical cases of source language agentivity.

There are some common patterns, such as that beginners in language learning will often initially transfer their entire phonology (usually by way of imposition) and much of their syntax (usually by way of restructurization), as for instance Winford (2003: 212–214) and Lucas (2014: 527) point out. However, we are hesitant to formulate hard and fast implicational hierarchies, and especially so for more intense contact situations. In particular, it seems doubtful whether contact-induced change necessarily occurs on more than one level, as claimed in Thomason & Kaufman (1988: 60).

Another frequent area of direct influence, although it can be indistinguishable from restructurization, is syntactic change induced by the source language. A transfer of syntactic rules is very common at clause (e.g. constituent order) and phrase level (head and dependents in phrases). This can lead to languages assuming a different syntactic type from related languages (see e.g. Aikhenvald 2007; Vennemann 2015a).

Influence on the morphology and on morphosyntactic categories tends to be more indirect and often involves a reinterpretation of categories after the model of the source language. This can lead to the loss and emergence of functional categories (see e.g. Winford 2003: 213–214) or their reinterpretation in line with the source language. Usually, a reinterpretation is motivated by some kind of similarity either on the functional or on the formal level. But direct transfer of morphological material does occur, although it is generally accepted that this is perhaps less common than source-language driven reinterpretation (see e.g. Odlin 2003: 439–441 for a general overview).

Although source language agentivity primarily influences the structure of the recipient language, lexical material can of course be transferred as well. This is especially likely if the recipient language displays a lexical gap that source language items can fill. It is, however, not always straightforward to differentiate between recipient and source language agentivity in the case of lexical items, because lexical influence under source language agentivity does not necessarily presuppose a higher degree of bilingualism, but if there are a significant amount of words that are transferred, this does at least suggest such a situation.

Apart from the transfer of material and concepts, in many situations of source language agentivity more general effects resulting from the acquisition process occur (Coetsem 2000: 170). For instance, Odlin (2003: 436) mentions avoidance, hypercorrection and simplification (see similarly also Winford 2003: 217–218). Although the dominant language is to some degree involved, this is more indirectly the case. Of the three concepts mentioned, simplification is perhaps the most vacuous, as defining what is linguistically complex and linguistically simple is not

a trivial task and is dependent on judgments reflecting also differences in perspectives (see Szmrecsanyi & Kortmann 2012 for a review of the literature). Thus, while there is general agreement that second language acquisition involves simplification of the target language as spoken by the language learners (see already Selinker 1972), it is less clear what kinds of processes are involved. There is a consensus that simplification is reductive in nature: simpler means more analytical, iconic, transparent, less elaborate, and refers to more redundancy, less irregularity, fewer distinctions and variants. However, connecting the various types of simplification to contact-induced change as a diagnostic has proved elusive, since simplification can and does also occur in language-internal change (see e.g. Coetsem 2000: 76). What is more, especially change occurring in bilinguals can actually increase the level of complexity (see e.g. Ross 2013: 37), and many instances of change due to source language agentivity also consist of a component of bilingualism, especially scenarios of language shift. As a result, simplification has to be seen as a common outcome of contact-induced change under source language agentivity, but it is neither a sufficient nor a necessary condition.

2.3 Neutralization of agentivity

The difference between recipient and source language agentivity can become blurred in situations of intimate and prolonged language contact characterized by widespread, and high levels of, societal bilingualism (see Coetsem 2000 for the difference between individual and societal bilingualism, Romaine 2005 for an overview of types of multilingual communities). In such cases it can be more useful to speak simply of pattern and matter replication instead, because there may not be a dominance difference in bilinguals with effectively two native languages (Coetsem 2000: 82–86). The main outcome of such highly intense contact situations is what has been widely called convergence (see e.g. Coetsem 2000: Chap. 5, Lucas 2014: 530–531, Matras 2009: Chap. 9). It appears that this is motivated by a general tendency by bilinguals to economize language use (Muysken 2013; Myers-Scotton 2006: 74). However, divergence is a possible outcome of bilingual contact (see e.g. Ellison & Miceli 2017).

Two basic types of group convergence are dialect levelling and koinéization (see e.g. Kerswill 2013). In both cases differences between dialects are reduced through accommodation, but koinéization involves the creation of a new language variety. In many cases standard languages are the result of this process, and standardization is essentially characterized by the levelling of dialectal differences (see e.g. Kerswill 2010). Extending from dialect convergence, the convergence effects between different languages are similar. Even though bilinguals generally learn

to use the languages in their repertoire separately at some stage (see e.g. Matras 2009: Chap. 4 with references), it seems that minimizing cognitive load (economic language use and correspondence matching) is still a major goal for bilinguals leading to interference on all levels of the language (Muysken 2013; Serratrice 2013; Kroll et al. 2015; Deuchar 2016).

The effects of bilingually induced change and transfer have been likened to imposition, especially to restructurization (Mühlhäusler 1979) of the recipient language under source language agentivity and language shift (pattern replication), as there appear to be many similarities (Yip & Matthews 2007: 262). Moreover, unless shift occurs rapidly, i.e. within one generation, it will be accompanied by bilingualism, and outcomes are likely to be mixed (Myers-Scotton 2006: 68).

A final point connected to language shift and bilingualism is language attrition, which is especially important in cases of asymmetric bilingualism in which one language dominates drastically. Not only can proficiency in the native language(s) be greatly reduced if a later acquired language takes over as the main means of expression, there is also robust indication for transfer from a second (or third) language into a natively acquired language, so-called *reverse transfer* (see Odlin 1989). This is a relatively new field of research (Muysken 2013: 724), but even now the results challenge the native speaker hypothesis, i.e. the view that the competence in the native language will always be higher than the competence in a later acquired language (see Szmrecsanyi & Kortmann 2012 for a critical review of the discussion).

3. The reconstruction of contact-induced change

The field of contact linguistics has established a standard procedure for arguing that the existence of a linguistic item is due to contact induced change (Poplack & Levey 2010; see also Thomason 2008; Thomason 2001; Mailhammer 2013; Mailhammer 2014). Accordingly, it must be established that

- there exists a plausible scenario in which the proposed change can be situated;
- a contact language can be identified;
- the feature in question shows similarities in the source and recipient languages;
- the feature in question did not exist in the recipient language variety prior to contact;
- the feature in question did exist in the source language variety prior to contact;
- and that internal or other reasons are less likely.

If not known from independent evidence, the process of change must be reconstructed. The basic method of reconstructing language-induced change is what Mailhammer (2013: 15) calls the "Blueprint Principle":

> If it is assumed or known that an item X (lexical or structural) either in its systemic status or in its usage is due to language contact, then a hypothetical scenario is reconstructed that explains the occurrence of X by interpreting X as traces of this scenario.

In other words, this is a hypothesis and its test is first its linguistic plausibility and second actual external evidence for the proposed contact-induced change (see Lucas & Lash 2012; Ross 2013 for applications of this research strategy). Like any reconstruction, this is necessarily probabilistic. The goal is to demonstrate that a contact-based explanation for the origin of a linguistic item – lexical or structural (see Mailhammer 2007a: 143–144 *et passim* for the distinction between lexical and structural etymology) – is the most likely hypothesis.[21]

The first of the requirements listed above we will discuss is the languages that are in contact, i.e. the identification of the source language. It is apparent that in an ideal case there are unambiguous linguistic and non-linguistic traces of a contact language, because that will increase the chance that the proposed contact-induced change actually happened. However, we argue that the absence of some such evidence does not preclude a hypothesis that involves contact-induced change.

There are two reasons supporting this position (see Mailhammer 2013: 19–20; Mailhammer 2014: 434–435; Schrijver 2014: 5). First, the absence of evidence should not be confused with counter-evidence. That is, just because there is no evidence for a situation of language contact, this does not prove that such a situation did not exist. Internal reconstructions routinely work with unattested protolanguages and real-life referents, so this should work in principle for contact-based reconstructions. Second, one has to define what is meant by the notion of "external evidence". Just because two languages co-exist in the same ecology or environment does not automatically guarantee that there will be contact-induced change. Languages may co-exist without showing clear effect of contact, so the mere presence of another language does not prove anything, except perhaps if there is specific evidence attesting to the linguistic contact, e.g. meta-evaluations by contemporary writers, as e.g. in Greek-Latin bilingualism in antiquity (see e.g. Adams 2003: 19). And, of course, there is contact-induced change without physical contact with speakers

21. The transferred element can be an actual linguistic item, i.e. a word or a structure, but also a part of an item, such as the meaning, or only a concept, such as a grammatical category. For the sake of avoiding cumbersome wording we use *item* in a general sense to refer to anything that is transferred.

of the source language, as shown by English loanwords everywhere in the world and also by the many *Wanderwörter* in the languages of the world.[22] As a result of this discussion, it is in theory sufficient for a reconstruction if a hypothesized contact language can be specified or if relevant characteristic features can be given. However, it is obvious that such a hypothesis may not be convincing, because it may not be concrete enough to be assessed properly. For instance, many attempted explanations for words and linguistic features propose contact with unknown languages, often substratum languages (see e.g. Beekes 1998).[23] Such proposals may be interesting steps towards an explanation but as no contact language can be identified, this can only be a partial reconstruction. What is required is an actual contact language that is known to have existed. What we would like to maintain is that this is irrespective of whether there is independent evidence of an actual contact situation. The linguistic data may be sufficient evidence, and this is what we will argue for in the case presented in this book.

In addition to a source language, a convincing contact explanation contains a source item or structure that is transferred. The more specific, i.e. down to the actual inflected form, the account is, the more compelling the explanation. Once a source form has been identified, it is crucial to explain its form or meaning (or both) in the recipient language. The target is to establish as much of a pattern as possible, either because there are similar cases, e.g. sound substitutions, or because there are parallel cases, e.g. loss of grammatical categories in certain situations of language contact, because the overall requirement is to demonstrate – in analogy to internal change – that the correspondences found between the source and recipient languages are too close or too systematic to be due to coincidence or independent internal development (assuming that genetic relatedness/inheritance can be ruled out independently). It is important to emphasize at this point that this is a theoretical roadmap. Building a convincing case requires assembling compelling evidence that makes the proposed contact scenario the most likely option.

---

22. We are grateful to Stephen Laker (p.c.) for pointing this out.

23. There are cases in which an outline of characteristic features of a hypothetical contact language or even just a sociolinguistic profile, such as "substratum", are all that can be given, but it still may be possible to at least sketch a plausible account. But this depends strongly on how clearly the data in question is unambiguously significant for contact-induced change and/or whether it is impossible to provide an internal account. For instance, due to the perceived rarity of PIE ^{+}b, Proto-Germanic words with ^{+}p, which is the regular reflex, are potentially problematic in terms of their internal etymology. If such a word then belongs to a semantic field that is especially commonly influenced by language contact, e.g. religion (see Tadmor, Haspelmath & Taylor 2010), then this can be enough to call into question an internal etymology (Mailhammer 2013; Ross 2013: 34–35 for a convincing case without a specified contact language or structure).

Source language and source item are closely linked to the contact scenario. The same source item may be changed differently in different contact scenarios. For instance, a situation with a high degree of bilingualism may lead to different sound changes in a borrowed item than a situation with only a low degree of bilingualism.

The contact scenario is the reconstruction in a narrow sense, because it describes the contact-induced change itself, i.e. how the item in question came into being in the recipient language. There are at least three important elements that must be addressed: (1) the dominance relationship, (2) the actual transfer and (3) the survival of the result of the change in the recipient language (see Mailhammer 2013, 2014). The dominance relationship and the process of transfer, i.e. the contact-induced change in the narrow sense, are interrelated, because both are reconstructed from common outcomes of language change, using the Blueprint Principle. This probabilistic process is in fact very similar to the reconstruction of internal changes, where what we know about internal change is used to reconstruct ancestral forms, as also observed above. The only exceptions are cases which permit the inference of the type of change directly from the result, e.g. a clear instance of borrowing. Otherwise, the strategy is to form a hypothesis about the dominance type from the perceived outcome, using the rule of thumb that recipient language agentivity appears to focus on lexical items first, whereas source language agentivity appears to focus on structure, especially phonology and syntax. Then this hypothesis is fleshed out by adding what the situation would have to look like in order for recipient language item X to be due to influence from item Y in the source language. There are linguistic and social components of this hypothesis. The same linguistic constellation, i.e. the same languages and structures, may lead to different outcomes under different social circumstances and vice versa. For instance, French influenced English in different ways, and this correlates to some degree also with their varying social relationships. The largest influx of French loanwords stems from a period of intense contact during the Middle English period, whereas fewer and semantically more distinct words came into English in the 18th century when French was a culturally dominant language in Europe but not in a close and superstratal relationship with English, as was the case in Middle English times.

The social and linguistic aspects of the contact scenario are relevant to all three components of the linguistic dominance relationship, the transfer process and the survival of the outcome of the contact-induced change. This list of relevant factors is not exhaustive; some, such as the social dominance relationship, were already mentioned. We refer the reader to the specialized literature (see e.g. Mailhammer 2013 for an overview; see Muysken 2013 for a typology of scenarios). The point we are making here is that the social and linguistic aspects of the contact scenario have to be spelled out and addressed separately, because they are logically independent (Mailhammer 2013: 16, n 6).

One important part of the contact scenario is the survival of the transferred item/structure, i.e. a reason for why it would have been taken up by other (possibly monolingual) speakers in the community and passed on to the next generation (Winford 2003: 17). Linguistically, this is influenced by how well the contact-induced innovation would have fit in into the recipient language, i.e. if it would have impeded communication or if it would have been a useful innovation from a systemic perspective (Mailhammer 2014: 436). Without social pressure, e.g. forced contact or very high prestige, an incompatible innovation may have problems spreading in the community.

A number of social factors have been identified that influence the spread of an innovation (contact-induced or not), and there is a vast body of literature on this issue. Of special significance is what Weinreich et al. (1968: 102) called the *actuation problem*, i.e. the question of why a change occurs in one instance but not in another. This problem is especially relevant for scenarios operating with language shift, as it has to be made plausible that the contact-induced innovation in question was in fact either taken up by monolingual speakers, who may even have belonged to a different social group or passed on to the next generation without getting ironed out through contact with monolingual speakers.

In addition to linguistic and social factors, more individual features, such as language attitudes and questions of identity, play a role (Myers-Scotton 2006: 74). For historical scenarios all of these may be difficult to reconstruct. Consequently, it is especially important to base the argumentation on formal matches. In particular, recurring correspondences are highly significant.

CHAPTER 3

Context, location and initial contact setting

1. Setting the stage

We propose that around the middle of the 1st millennium BCE, possibly during Himilco's expedition, the Carthaginians established outposts on the coastal areas of present-day Northern Germany, Jutland, and perhaps also southern Sweden.[24] This is plausible, based on evidence for a Punic presence in the British Isles, the report about the voyage of Himilco and the general expansion strategy of the Carthaginians, which was colonial, aiming at establishing settlements (see Chapter 8 for further details). As elsewhere, they would have favored peninsulas, protruding islands and areas in front of mountains, as these could be turned into ports for sea voyages (Morstadt 2015; Neville 2007: 13; Wagner 1969: 74–75). The primary purpose of these outposts was to secure access to resources and collect tribute payments from the local population. They were, however, also ports for the Carthaginian ships, and probably right from the start were designed as more permanent settlements to control the surrounding territory (Huß 2008: 33).[25] This can be deduced from the general way Carthaginian exploration and colonization proceeded hand in hand, as can be seen very clearly from Hanno's African expedition (see Schulz 2016: 155–160, Chap. 8). The general strategy was to establish

24. It is possible that, like in the Mediterranean and the western part of the Iberian Peninsula (Arruda 2009; Dietler & López-Ruiz 2009: 302; Gsell 1913), the Carthaginians took over older Phoenician settlements. The Phoenicians had been colonizing the Atlantic regions since the 9th century BCE at the latest (González-Ruibal 2004: 291; Markoe 2000: 189).

25. It may have been the case that there was a period of a "non-hegemonic contact" (Arruda 2009: 121), i.e. episodic visits, but we find it more likely that the Carthaginian expeditions had the goal to establish at least some kind of permanent settlements. There are two reasons for this. First, the "non-hegemonic" contact mainly took place between the eleventh and tenth centuries BCE under the Phoenicians, while the Carthaginians were typically much more "hegemonic" (Markoe 2000: 189). This can be seen e.g. from the increased social impact the Phoenician colonization had in Spain once the Carthaginians took over and extended their influence beyond the coastal areas (Dietler & López-Ruiz 2009: 302). Second, the report of Hanno's journey to Africa clearly mentions a settlement practice, which is an argument against planned episodic visits. Nonetheless, it is quite possible that the Carthaginians were careful initially. The evidence from the Iberian Peninsula also is in favor of a settlement policy from the beginnings of the Phoenician presence (Neville 2007: 21).

a network of coastal trade posts through which the Carthaginians sought to gain access to resources (Demandt 1995; Moscati 1988: 46).

It is likely that the settlements were small and dotted along the coastline, not penetrating too far into the hinterland, which nevertheless was under political control and therefore taxed and accessed for raw materials (Ameling 1993: 111; Dietler & López-Ruiz 2009: 301; Gsell 1913: 373; Neville 2007: 13; Wagner 1969). It is also likely that this settlement process was accompanied by a military presence to secure the trade outposts and to gain and maintain control over the surrounding areas. The coastal areas of the North and Baltic Seas would have attracted the Punic interest in amber and wood (Treumann 2009: 181), but also fish and slaves (Arruda 2009: 124–125; Markoe 2000: 104). Based on what is known from other places, especially Spain and Portugal, it is further likely that the Punic colonizers started out living among the local population in already existing settlements, which they often took over in the long run (Neville 2007: 13).

The local population in the relevant area we identify at least partially with speakers of Pre-Proto-Germanic, but it has to be assumed that other languages were spoken in this region, too.[26] We surmise that the people on the Carthaginian ships all spoke Punic. It is probable that there was variation in the Punic spoken, though this is not documented. It can, however, be inferred based on the following considerations. First, the Punic empire spanned a significant and non-contiguous area resulting from colonialization, and even if the original Canaanite population had been linguistically homogeneous (which they were not, cf. Belén Deamos 2009: 195), it is likely that there would have been endogenously generated variation. Second, Punic society was socially stratified (Demandt 1995: 362; Markoe 2000: 90–91), and thus it can be expected that there was socially and stylistically conditioned variation of language as well. Third, during the expansion process, Punic came

26. The exact location of the (Pre-)Germanic people around the middle of the first millennium BCE is unknown, but experts locate them in Northern Germany and Jutland, and possibly also in southern Sweden (Seebold 1999; Steuer 1998: 326). More recent approaches have explored a pluricentric theory of origin, but there is a consensus about these areas as possible locations of the speakers of (Pre-)Germanic (Pohl 2000: 46). For our hypothesis this is of secondary importance, as the coastal areas of all of these areas would have contained likely sites for Punic outposts in order to obtain access to the resources mentioned in the main text. For linguistic reasons the idea of pluricentricity and the heterogeneity of the peoples to which the term "Germanic" is applied (see Pohl 2000: 47–50 for further details) are insignificant in this context, because a common ancestor, which in all likelihood had speakers in a contiguous location, can be reconstructed for all Germanic languages (Pohl 2000: 45). Wherever the speakers of (Pre-)Proto-Germanic lived, their language shows the problems outlined in Chapter 1, and it is thus subject to the explanations we propose here. In order for our hypothesis to be historically plausible, it is sufficient that the physical location of the speakers of what was to become Germanic matches with what can be made plausible for a Punic expansion path.

in contact with other languages, which often caused language shift on part of the non-Punic speakers (Gsell 1913: 342). Carthage itself was ethnically and culturally diverse (Markoe 2000: 92), and contained a significant proportion of foreigners who often originally spoke other languages, such as Berber and Greek (Markoe 2000: 91; Pilkington 2013: 213; Röllig 1980: 289). This suggests intra-communal language contact and shift (Charles-Picard & Charles-Picard 1983: 70), bilingual convergence phenomena and what were possibly ethnolectal repertoires (see Benor 2010 for the term *ethnolectal repertoire*).

It is thus likely that also other languages were spoken – the population of Phoenician colonies was not homogeneous and generally contained non-Phoenicians, such as Libyan slaves (Belarte 2009: 106), who spoke Berber. Moreover, Punic, like other imperial languages in antiquity more generally (see Adams 2003 for the case of Latin and Janse 2002 for the case of Greek) – but unlike modern colonial languages – did not forcibly oust other languages, and thus they continued to be spoken. Carthage, for instance, contained a significant and well-respected Greek community (Röllig 1980: 396), and many communities in antiquity were highly multilingual, multicultural and "global" (Schulz 2016: 63–64).

In spite of this, however, it is likely that everyone on the Carthaginian ships used Punic as a communal language. It was certainly the language of the military (Rössler 1980: 290), and it was also a way to express identity irrespective of ethnicity, as was generally the case in antiquity (see Papaconstantinou 2010: 13). This can also be inferred from the generally strong ideology of loyalty and pride in being Carthaginian (Ameling 1993: 75), which can be seen in multiple ways, perhaps most strongly in how long Punic continued to be spoken and how long people continued to identify as Canaanite once Carthage had been destroyed. In North Africa this lasted until the time of Augustine (Rössler 1980: 296), and in Sardinia, Punic was spoken well into Roman times (Gsell 1913; Wagner 1969: 428), as it was in Spain (Harris 2008: 142). As a result, it can be assumed that the most frequently used language on the Carthaginian ships was Punic (even though there must have been a significant degree of multilingualism), and that when the Carthaginians established their settlements, Punic came into contact with the local languages, one of which was to become Proto-Germanic.

The initial contact setting can be reconstructed as follows. It is likely that prior to establishing outposts, the Carthaginians would have traded with the locals (see e.g. Moscati 1996: 242). Once the Carthaginians began the settlement process it is possible that hostilities broke out initially. This is suggested by analogous cases but also by Germanic mythology (see Chapter 8, Section 3), if this can be taken as indication at all. But irrespective of that, at some point peace was made, and the Punic outposts stayed and flourished for more than three hundred years.

2. The first phase: Slow language shift to Punic

The overarching theme of the first phase is that Punic would have been the dominant language and culture in and around the Punic colonial settlements with a somewhat attenuated influence going into the hinterland. We assume that there was a profound ecological effect (e.g. deforestation in Spain, see Treumann 2009: 175–176), increased agricultural production (the Carthaginians were famous for their agricultural expertise, see e.g. Harden 1963: 138), technological advances (e.g. metallurgy, see Sanmartí 2009: 64) and increase of infrastructure in local areas, as this was e.g. the case in Iberia (Belarte 2009: 106; Buxó 2009: 157–160). Commodities of Mediterranean, and especially Phoenician, provenience (see Chapter 8 for more details), such as, for instance, the Phoenician coins, pottery and bracelets found in Sardinia (see Wagner 1969: 88) support such an assumption. The two areas of Punic influence that could have played a key role in our hypothetical scenario, however, are religion and literacy. This is supported by known cases, such as the evidence for the strong effect Phoenician trade and colonization had on the religion and associated rituals in Tartessos:

> The most striking aspect of the transformations following the onset of Phoenician trade in Tartessos is the local population's apparent adoption of religious iconography and funerary rituals with markedly Eastern characteristics.
>
> (Belén Deamos 2009: 194)

For the Phoenicians, the connection between commerce and religion was already strong (Belén Deamos 2009: 212). Pilkington (2013: 198) even argues that the main physical manifestation of Phoenician trade stations in general were temples. This influence would have only increased once Carthage took over the Phoenician colonies, as was generally the case in Spain (Dietler & López-Ruiz 2009: 302). Religion would have been an especially suitable vehicle for the spread of the Punic language. The striking parallels between Germanic and Punic mythology/religion reported in Chapter 8 are consistent with this assumption. That the spread of religion goes hand in hand with the spread of language is supported by many analogous cases, e.g. the spread of Sanskrit together with Buddhism, the spread of Latin with Christianity, and perhaps most significantly, the spread of Arabic with Islam (see especially Versteegh 2010).

The Punic writing system was highly transferable and that it was also often adapted to the needs of the languages that adopted it needs no particular exemplification, because this is common knowledge. There is, for example, direct evidence that the Greek alphabet is a Punic import, and this is generally accepted. There is also good indication that the Punic writing system was also transferred in colonial settings. The Libyan writing systems clearly originated either directly from the

Phoenician-Punic alphabet or were developed under Phoenician influence (Kienast 2001: 525), and this is likely for the Tartessian system, too (Dietler 2009: 5). The particular significance of the writing system lies in the fact that this introduced literacy to the Pre-Germanic peoples, and this must have gone hand in hand with profound cultural influence. Generally, the introduction of literacy and the associated writing system leaves lasting cultural traces. This is supported by numerous cases, for instance, the influence of the Chinese-writing system in East Asia, the introduction of English-based literacy to indigenous communities in Australia, and, the effect that the spread of the Roman alphabet has had in the western world. We believe that religion, literacy and a writing system that was tailored to the needs of Germanic were powerful vehicles of Punic cultural influence. These factors play a key role in our hypothetical scenario.

In this connection it is important to draw attention to the fact that the Punic dominance and colonial influence was by no means a one-way transfer. It has become clear in recent years that what has commonly been called "Orientalization" was in fact a reciprocal relationship between the "colonizers" and the local population (Morstadt 2015: 149). Thus, in the interaction with the Carthaginians the Pre-Germanic population would not have been passive, which would have led to a considerable degree of hybridity in many aspects of everyday life, and which would also have extended into the hinterland. This can be inferred from newer research on the influence of the colonizers on the local population, especially in Spain, which we take as the main analogy for our hypothetical case. While in the older literature this was interpreted as a largely one-way influence by the colonizers upon the local people, more recent research has emphasized the agentivity of the local population, which resulted in a great deal of hybridity, also linguistically:

> It is my belief that ancient colonialisms involved a real subordination of the colonized to the colonizer and that the latter wished to exploit economically the resources of the former. However, from my perspective there was a significant interaction between the elite of both parties, which allows us to speak of hybridization. It also seems evident that within colonial contexts, the colonizers "recurrently need to redefine their social positions, thus contributing to an articulation of local indigenous situations in the wider colonial context." (Arruda 2009: 127)

There is an increasing understanding that "Orientalization" is too simplistic, instead the interaction between colonizers and locals created a hybrid culture that was diverse and fluid, e.g. the "Iberian" culture (Iberianization). Settlements, for instance, were not just Phoenician copies but something distinctly new (Arruda 2009: 127). Thus, Orientalization is not just a phenomenon affecting the locals but manifesting itself especially in the interrelation between the Phoenicians and the locals (Belén Deamos 2009: 215); there clearly is evidence for the "significance of

indigenous agency" (Dietler & López-Ruiz 2009: 300). We also assume that this process involved the hinterland population which probably resulted in an increased heterogeneity of societies, as Belén Deamos (2009: 194–195) summarizes for the contact situation between Phoenicians and Tartessians:

> This organization would in itself explain the stable settlement of an Eastern population in the region, not only in the coastal trade centers but also in other trading points that emerged in the hinterland. This activity must have favored the arrival of very heterogeneous peoples, diverse not only in their interests but also in their origins and their ethnic makeup. I perceive the presence of these small groups through a hybrid archaeological culture that I call Tartessian, side by side with the Phoenician group and the indigenous society itself.

That there would have been a considerable degree of intermixing between Phoenicians with a stable presence and Tartessians is suggested by bicultural cemeteries on the Iberian Peninsula (Belén Deamos 2009: 194–195). This is also more generally suggested by other colonial situations in antiquity in which there was significant indication of multilingualism and intermixing (Drommelen 1997; Schulz 2016: 121) with various degrees of language shift, such as Hellenistic Egypt (Vierros 2013) and Greek and Roman Palestine (Adams 2003; Janse 2002). However, even though the social situation would probably have permitted much interaction between speakers of Punic and Pre-Proto-Germanic, and notwithstanding the hybrid features of the emerging colonial society, it must not be forgotten that during this first phase the Carthaginians were in power, which had considerable social implications.

First, everything that was Punic would have been very attractive to the local population, especially from a material perspective. In analogy to cases like North Africa, Sardinia and, especially, Spain, we can assume that the local population would have engaged with the Carthaginians, hoping to share their wealth and civilizatory achievements, and that the key to this was the language, opening up access to literacy and also religion. Thus, we hypothesize that during this first phase of contact, when the connection to Carthage would have been strongest, the local Pre-Germanic population would have sought contact with the Carthaginians and with Punic in order to participate in their civilization. The locals would have been traders, labourers, soldiers and marriage partners, and thus would have been constantly surrounded by Punic, the predominant and official language of the Punic-controlled settlements. In order to succeed, they would have made every effort to learn Punic. This would have been correlated with the opportunities they had both to learn and to succeed with different outcomes (more on this below). However, the attraction of everything Punic possibly also extended to culture and identity. It is likely that the Germanic people in and around the Punic

settlements came to feel more and more like Carthaginians. This was on the one hand fuelled by the semi-permeable nature of Carthaginian society, which even allowed non-Carthaginians to enter the army (see Markoe 2000: 90–92). On the other hand, Carthaginian self-consciousness and identity were very strong factors in the Carthaginian mind-set and played a key role in Carthage's success. We mentioned this in the preceding section, but we would like to emphasize again that it is probable that many ethnic Germanic people actually thought of themselves as being Punic and this quite possibly even until well into the second phase of contact.

Second, the length and the relative intimacy of the contact situation would have fostered the creation of new and hybrid cultural practices, as happened elsewhere. This would have ranged from social groups, to art, religious practices and probably also language. It is likely that Punic cultural practices were re-interpreted and mixed with local practices. The Germanic hybrid mythology with its many parallels to specifically Punic beliefs and deities is consistent with this (see Chapter 8 for details).

Third, it is likely that a part of the Germanic speakers perceived the Carthaginians and their culture as a threat. They would have felt alienated by the fact that they had to pay tribute to them (see e.g. Huß 2008: 79–80) with little to gain from their presence, which undermined the local power structure. This was certainly the case in other places where the Carthaginians established settlements. Although they took the local power structure into account, their aim was control of the area and the goods (Ameling 1993: 108, 112). It is therefore not surprising that rebellions were fairly common; examples are those in North Africa and Sardinia in the fourth century BCE (Gsell 1913: 466). Another group of people who were perhaps also ambivalent about the Carthaginian civilization were ethnic Germanic people with little success in the colonial society or with little opportunity to advance up the social ladder. Nevertheless, it is likely that both these groups were not free from Punic cultural influences. Religion in particular would have served as a vehicle for the transmission of culture and language. However, we believe that one important aspect of the Punic-dominant colonial situation was a constant tension between the two cultures, which became more relevant in the second phase as Punic influence waned.

This can be linguistically interpreted in terms of groups of people with likely dominance relationships (see Chapter 2 for the concept of linguistic dominance) in their linguistic repertoires under this hypothetical scenario that is based on the assumption that Punic and Pre-Germanic were really in contact.

a. Punic-dominant speakers: What all these speakers have in common is that Punic is their dominant language in the sense of Coetsem (2000). That is, they either acquired Punic as children or they have effectively shifted to Punic from Pre-Germanic or another language within their lifetime. That is, Punic is the 'best' language of their repertoire. This includes first of all monolingual Punic

speakers, irrespective of whether they are immigrants or not. It is likely that almost all Punic immigrants born overseas and at least some children from all-Punic relationships fall into this category.[27] Punic-dominance can also be assumed for speakers who acquired Punic in a Punic-dominated setting, e.g. as children of a Punic father and a Pre-Germanic-speaking mother. Furthermore, it is likely that a number of people with Pre-Germanic as their native language became Punic-dominant through language shift during their lifetime, due to constant exposure to Punic and lack of contact with speakers of Pre-Germanic. Finally, especially in the final stage of the death of Punic, there would have been Punic-dominant bilinguals who acquired Pre-Germanic as a second language or in a Punic-dominant setting, as the shift to Pre-Germanic was completed.[28]

b. Pre-Germanic-dominant speakers: All speakers in this category are dominant in Pre-Germanic, usually because it is (one of) their native language(s) acquired in a Pre-Germanic dominant social setting. Obviously, all monolingual Pre-Germanic speakers are in this group, either because they are from the hinterland or because they acquired Pre-Germanic with little exposure to Punic, for instance because they grew up as the child of a Punic mother who married into a Pre-Germanic family and who did not pass on Punic. This also comprises most second language learners of Punic, probably a sizeable proportion of the Punic-Germanic community at any time, as there would have been a steady stream of immigrants from the hinterland. The typical member of this group is a second language learner of Punic.

c. Other and complex dominance relationships: Besides possibly rare symmetrical bilinguals, this would have included speakers with other native languages, such as Greek. These cases can be ignored unless one of the languages in the repertoire was Pre-Germanic. For immigrants from overseas it can be assumed that they knew Punic and that they were more likely to side socially with the Carthaginians (if they were not Carthaginians themselves), and were thus unlikely to have made attempts to learn Pre-Germanic. Conversely, for speakers of other local languages, it can be assumed that they knew Pre-Germanic, but they may well have learned Punic.

---

27. Many children of Punic parents would have been exposed to Pre-Germanic, as this would have been a language frequently spoken by child minders and other household personnel.

28. There would not have been many Punic monolinguals who acquired Pre-Germanic during that phase or during the first phase, as the Carthaginians, like colonizers in antiquity more generally, were relatively indifferent towards local populations, and usually made no effort to engage with their cultural and linguistic practices.

From this, specific scenarios of language contact can be reconstructed. In this section we focus on the first phase, during which our hypothetical linguistic innovations originated. The next section will concentrate on how these innovations survived in Germanic in phase two of the contact scenario.

Except for lexical transfer, the contact-induced changes we discuss in this book presuppose a significant familiarity with Punic. Effectively, these are cases of pattern replication, or rather pattern convergence, under highly intense contact, and there the distinction between source and recipient language agentivity and even dominance may not be as clear-cut. What seems to matter is that the Punic pattern was recognized and replicated in Germanic, and that this required a considerable knowledge of Punic. Consequently, we can assume that the relevant speakers were either Punic-dominant (group a) or that their exposure to and daily usage of Punic was so high that it resulted in convergence effects, even though linguistically they may still have been Pre-Germanic-dominant (group b). That is, they were probably for the most part ethnic Germanic or of mixed ethnicity, but their most accessible language was Punic and that to them Punic culture, civilization and language were important either materially or in terms of identity. However, it is important to note that these speakers continued using Pre-Germanic, but that they did not attempt to hide Punic influences or may even have accentuated them.[29] Their ties with the Punic community may have been loose and relatively shallow, for the most part business or official relations, though this could have been different for children of mixed marriages. Thus, they were oscillating between the cultural poles. The results would have been many weak ties to both poles, but an emerging identity that enhanced their linguistic distinctiveness. We hypothesize that this group are the core innovators and also the agents of change on the Germanic side. It is likely that his group also developed a sense of hybrid identity that was characterized by a sense of belonging to the Punic civilization, which didn't reject them outright even though they were in fact second-class citizens or at least outsiders, like the Greeks in Carthage, the many foreigners serving in the Carthaginian army or the local artisans and traders in Spain and Sardinia. On the other hand, this group would have felt more ambivalent to the other locals, feeling somehow superior and possibly more "civilized" due to their Punic connection. It is likely that its members actually tried to "Punicize" Germanic in an effort to make it more "civilized". There are attested cases in antiquity that suggest this. One example is the influence of Latin on Oscan and other Italic languages in general, which is evidenced by syntactic imitation, the imitation of legal formulae and several other features that are best

29. There would have been Germanic speakers who shifted completely to Punic, but they would have played no significant part in the innovations that occurred in Germanic, as they had given up Gemanic completely, much like many immigrant countries like Australia.

explained by the prestige of Latin (Adams 2003: chap. 2). Another example is the imitation of Greek pronunciation by speakers of Latin due to the high prestige of Greek as the language of civilization (Adams 2003: 432; Gray 1978). This is not unlike what Anglicized Bengalis did when they "modernized" Bengali in the so-called "Bengali Renaissance", even though mimicking British habits was ridiculed by the British themselves.[30]

The linguistic effect of this complex scenario is first of all a continuum of varieties of Punic, including contact varieties of Punic. There would also have been varieties of Pre-Germanic that were influenced by Punic to various degrees. The varieties would not necessarily be stable, but most likely would have been influenced by the heterogeneous repertoires of individual speakers that were shaped by contact to various degrees and which overlapped only partially. This is for instance the situation of English and indigenous languages in Northern Australia (Mailhammer & Birch 2014).

It is however, likely that at least two kinds of more stable varieties emerged. The first is a Punic-based variety, spoken by bilingual people whose language dominance had shifted to Punic. Second, there would have been a Pre-Germanic lingua franca that was in use among Pre-Germanic speakers who lived in or on the periphery of the Punic-controlled settlements or by Pre-Germanic speakers with little access to Punic or little identification with the Carthaginians. Also, "progressive" hinterland speakers probably would have known this variety of Pre-Germanic. We expect that dialectal differences were attenuated in both of these varieties and that dialect levelling occurred to a significant degree.

In terms of linguo-cultural identification, the first lingua franca probably would have been identified as Punic, while the second was probably Germanic. Other contact varieties would have been deemed as in-between, and possibly seen as local or even as something entirely different. This is similar in Australia, where restructured varieties of English are typically labelled "English" (e.g. Aboriginal English), whereas creoles have other names (e.g. "Kriol" in the Northern Territory), and indigenous languages, which are undoubtedly also influenced by English, are labelled "indigenous".[31]

It is this lingua franca variety of Germanic that contains the innovations discussed here and probably others. It is likely that this variety was a continuum in

30. We thank Anthea Fraser Gupta (p.c.) for this example.

31. There are also contact languages that have resulted from extensive code switching and that are pretty much mixed languages, such as Gurindji Kriol. They would not be regarded as varieties of English (see Meakins 2014 for a detailed overview). It may well be that mixed languages existed in our hypothetical scenario but evidently Proto-Germanic is no such language, and consequently we do not think mixed languages played a significant role here.

itself, ranging from a "heavier", more Punicized version to a relatively "Germanic" version, with different degrees of dialect levelling. The speakers of this variety were for the most part ethnic Germanic or bi-ethnic, but it is possible that it was spoken by others as well. From analogous cases, for example the Libyans in Carthage and North Africa (see e.g. Pilkington 2013: 239), we can assume that this group was relatively large, and that they may even have lived physically adjacent in a selected part of the community.

3. The second phase: Koinézation and re-Germanicization

We assume that the first phase began to end once Carthage lost the Second Punic War, and thus lost access to most of her Mediterranean, and quite possibly also to her Atlantic colonies. The main reason is that the Germanic colony was increasingly cut off from the supply of new monolingual Punic speakers. It can be assumed that trade and contact with other Punic-speaking areas of the North, such as the British Isles, continued. For example, a Neo-Punic inscription in Wales proves that Punic continued to be spoken until the 3rd century CE (Röllig 1980: 292). And, specific innovations in the Runic alphabet can be best explained if contact with Neo-Punic is assumed. When Carthage was destroyed there may even have been a brief influx of fleeing Carthaginians, but at some point Punic literally began bleeding out.

However, based on our knowledge of practically everywhere else where Punic was eventually ousted – usually by Latin – it took several hundred years for this to happen. It was a process of slow death, similar to that of Sumerian (Woods 2006), with written fluency disappearing before oral fluency (Adams 2003: 66). In North Africa and elsewhere, Punic continued to be written and spoken almost everywhere (Röllig 1980: 290–291), and the local population still called themselves "Canaanites" at the time of St. Augustine in the 4th/5th centuries CE (Röllig 1980: 298). In Sardinia, Punic names and estates existed into Roman times (Gsell 1913; Wagner 1969: 428), and Punic influence probably persisted until the second century CE (Röllig 1980: 289). Likewise, in Spain, Punic survived the Roman conquest (Harris 2008: 142). This evidence suggests that Punic was also spoken for quite some time after the ties to the mother country were severed.

Parallel to the slow death of Punic in and around the colonial settlements, Germanic would have taken over more and more of the functions of Punic, as its speakers, who quite possibly saw themselves as heirs to the Punic civilization, occupied positions of power. The continuing exchange with the hinterland almost certainly led to dialect levelling. We suggest in fact that this resulted in the creation of a new koiné variety that eventually became Proto-Germanic. This would be consistent with the general observation that Proto-Germanic often appears to structure

and order its inherited material much more than other Indo-European languages such as Latin (Seebold 1999: 178). It is quite possible that this koiné underwent a process of re-Germanicization, in which Punic-influenced features were rolled back so that it eventually contained only some of the features that had originated in the contact with Punic in the first phase. Even though, the old power structure persisted for quite some time. Even after the Roman conquest of Sardinia time was still counted as it was customary in Carthage (Wagner 1969), which suggests that the Carthaginian system of government was still intact – it is likely that it was slowly linguistically and culturally appropriated. This means that it is likely that for instance the administrative terminology was at some point at least partially nativized and perhaps reinterpreted in a more Germanic way. It is even possible that Punic in its dying days was influenced by Germanic in its calques and names, just as in North Africa (see Röllig 1980: 292 for further details).

At any rate, we find it plausible that at least some of the Punic influence that first manifested itself in the Germanic koiné persisted and became part of Proto-Germanic. There is indication from other areas in which the Carthaginians had colonized that Punic influenced local languages, most notably Berber (see Blažek 2014; Gsell 1913: 319), but also the language of the Canary Islands (see Böhm 2002). This is not unusual. Around the world, many local languages have been influenced by languages of colonization in more recent times, and the contact processes of the ancient world were similar in this respect to those of the modern world.

4. Summary: Towards a time line

Our reconstruction of the hypothetical contact scenario is dynamic in two dimensions. First, it is diachronically dynamic because the contact setting would have changed throughout the lifetime of the contact between Punic and Germanic. The initial phase can be characterized as an overall scenario of slow language shift towards Punic, while the second phase was mainly determined by Germanic taking over as the dominant and then only language. In the first phase, the agents of change would have been bilinguals whose linguistic repertoires were dominated by Punic. As a result, different Punic-dominated contact repertoires emerged. One convergence outcome of these repertoires could have been a Punic-influenced version of Germanic that served as a koiné for the Germanic communities in and around the colonial settlements and that was also used to communicate with the hinterland speakers, whose Germanic was not so strongly influenced by Punic. Already in the first phase, certain Punicisms and especially lexical material would have been borrowed into hinterland Germanic, so that even then there would have been some kind of dialect levelling or even koinézation between the two main varieties of

Germanic – the Punic-influenced lingua franca spoken in the areas controlled by the Carthaginians and the hinterland variety. In the second phase, the number of Punic speakers decreased steadily, and both varieties of Germanic came even more in contact with each other and eventually converged to form one variety (a koiné) in which certain traces of the contact with Punic remained.

Second, the situation was synchronically dynamic in the sense that several contact settings and linguistic repertoires (Benor 2010) would have co-existed at the same time. This means that speakers and their repertoires would have been in several different contact situations with other speakers and their repertoires, which would have led to new contact-influenced repertoires that were not necessarily identical and which may have overlapped only partially. This is what is found in contacts between English and Australian Indigenous languages (Eades 2014), but also in other varieties of English and creoles (Hackert 2008).

As indicated above, the Punic presence northeast of the British Isles begins with Himilco's journey in the early fifth century BCE. It would have taken some time to establish permanent settlements and reach a status quo of peaceful coexistence with the local population in the coastal areas of Jutland and Southern Scandinavia. It is likely that the zone of contact was relatively small, given that we perhaps should not assume that the area where the speakers of Pre-Germanic lived was very big (for linguistic reasons). These settlements flourished and developed as described above (phase 1) until the end of the Second Punic War (201 BCE), when Carthage lost access to practically all her overseas colonies (Pilkington 2013: 217). From this point the supply to the colonies would have been severely curtailed, progressively and even more so after the destruction of Carthage (146 BCE). This means that phase 2 begins roughly in 201 and then lasts until the first speakers of Germanic languages start migrating south. It is possible that there were still speakers of Punic at this time, but this would not have affected the overall development. By that time, Proto-Germanic would have already developed into the koiné discussed above, passing the Punic influence on to the emerging Germanic daughter languages.

CHAPTER 4

Punic elements in the Proto-Germanic lexicon

In Chapter 1, we pointed out that there is a sizeable part of the Germanic lexicon whose origin is unknown. We also gave reasons for why we expect at least a part of these words to be from a superstratum rather than from a substratum: these words are from semantic fields that are more commonly borrowed from a superstratum (see Chapter 2). In this chapter we propose that key terms falling into the semantic areas of the law, the military, religion, or other domains with a societal significance, i.e. typical domains of superstratal lexical influence, are Punic loanwords. Chapter 3 explained why we think that Punic could have been a superstrate to speakers of Pre-Germanic. Consequently, Punic is a possible candidate for these loanwords, and the scenario in Chapter 3 argues that they entered Pre-Germanic at a time when Punic was the dominant language for a significant part of the Pre-Germanic population. This scenario is typical for superstrate borrowing.

Punic, and Phoenician generally, is a very poorly attested language; the entire documented lexicon comprises only a few hundred basic words.[32] But fortunately there exist (1) a very closely related dialect with a much richer preserved corpus, Biblical Hebrew, and (2) a closely related and very conservative language, Classical Arabic with a rich vocabulary. These and other closely related languages, such as Ugaritic, may be consulted when a Phoenician word for a given concept is not or insufficiently attested. We emphasize that recourse to Hebrew or any other Semitic language serves the sole purpose of supporting assumptions made about Phoenician and never implies that we assume those languages to be the source of an assumed borrowing. The only Semitic contact language of Proto-Germanic we reckon with is the western-most language of the family, Punic, the language of the Carthaginian Empire.

---

32. Krahmalkov (2000) contains a little more than 2100 entries. This appears impressive. But it includes (1) a number of items of unknown meaning, (2) a number of place names and of theonyms, and (3) a very large number of personal names, most of them compounds of the type *BDB'L*, i.e *Bod-Ba'al*, combining a few lexical elements such as *BD* 'in the service of' with a number of theonyms such as *B'L* (a dozen in the case of *BD*). By way of comparison: *The Shorter* [!] *Oxford English Dictionary* (Little et al. 1964) contains 80,096 words, the *Advanced Learner's Dictionary* (Hornby et al. 1963) 27,241 words, and even the shortest of all published English vocabularies, the *General Service List* (West 1953), 3,984 words, i.e. probably ten times as many words as are known for Phoenician/Punic.

Before discussing individual etymologies, we would like to mention an issue that has repeatedly been raised in discussions with colleagues. This is the number of words with Punic etymologies, and it is our impression that a commonly held view is that it must be considerable in order to make our theory plausible. We do not share this view and would briefly like to explain why. First, the fact that Germanic-dominant speakers, who were in some cases monolingual, slowly took over power after the end of the Second Punic War, would have led to a roll-back of Punic influence. There are other, well-known similar cases, especially local Berber varieties, where the demonstrable Punic influence is also slight (Blažek 2014). There, only a few loanwords have been found so far. This stands in contrast with reports by contemporary sources, and the Punic dominance of North Africa lasted far longer than what we assume for Northern Europe. To be fair, the low number of Punic loanwords could also at least partially be due to the fact that Berber borrowed a significant number of loanwords from Arabic, some of which could have replaced some of the Punic loans. However, another parallel case where the amount of loanwords appears to be low, despite superstratal contact, is Old English loanwords in Old Welsh (see Falileyev 2000). Consequently, we are not too alarmed at what might seem a low number of loanwords. Second, we think the kinds of words are more important than the numbers. The words that we discuss in this chapter offer pivotal support for our theory, as they belong to typical superstratum vocabulary, which can be seen from other well-studied cases. Third, etymologies are always open to being challenged, and presenting a convincing case, especially under such unusual circumstances, for a large number of etymologies is simply beyond the permissible length of this book. In the following sections we review terms with particular socio-cultural significance, especially the words for 'division of an army' (PGmc. $^{+}$*fulka*-), 'extended family, clan' ($^{+}$*sibjō*-) and 'nobility' ($^{+}$*aþala*-), see Pohl (2000: 6) for the importance of these words.

1. PGmc. $^{+}$*fulka*- 'division of an army'

The etymological connections of this word are uncertain, and there is no accepted etymology. One suggestion is a comparison with words meaning 'follow', e.g. Bret. *heulia* 'follow', but this is rejected on formal grounds by Kroonen (2013). Among others, Kluge (2011) supposes a connection to PGmc. $^{+}$*fulla*- 'full' (< PIE $^{+}$*pelh*$_1$- 'fill'), but that is rather speculative, and we do not consider a derivation from the root of *full* an acceptable etymology. First, the formal match is inexact. If $^{+}$*fulka*- were derived from this root, Germanic would show a unique extension with -*k*- (with unspecified meaning, or contribution to the meaning of $^{+}$*fulka*-). This is *ad hoc* and makes the connection doubtful. The comparison with Lat. *populus* offers

no support, given that its etymological connections are unclear (Walde & Hofmann 1982), hence in particular not of a derivative of the root of *full*. Third, and most seriously, the etymology completely fails to account for the oldest reconstructible meaning of the word. The primary contemporary meaning in German, 'nation', as also the meaning of *folk* in English, are language-specific innovations. The original meaning must have been 'division of an army' (see also Philippa et al. 2003); at least this is the meaning of *folk* both in Old Saxon and in Old High German (see e.g. Herold 1941; Ehrismann 1970). This is also proposed in the OED (s.v. *folk*) in reference to Old Norse: "The original sense is perhaps best preserved in Old Norse [for which the OED offers the meanings 'people, army, detachment']; compare Old Church Slavonic *plŭkŭ* (Russian *polk*) 'division of an army', Lithuanian *pulkas* 'crowd', which are believed to be early adoptions < Germanic." The meaning 'division of an army' is also evident in the Old Norse derivative *fylki* 'kriegerschar, haufen, distrikt' [group of soldiers/detachment, crowd, district], also in OE *gefylce* 'schar, regiment' [group/company, regiment], both < *+ga-fulk-j-a-* (cf. de Vries 1977: s.v. *fylki*). Clearly the concept of 'division of an army', an item of military terminology, has nothing to do with the meaning 'full', hence cannot derive from a base meaning 'full'. An acceptable etymology would either derive a noun meaning 'division' from a verb meaning 'divide' or else not derive it at all but consider it a loanword already meaning 'division' when entering Proto-Germanic. Since there is no Indo-European verb meaning 'divide' that could serve as a basis for *+fulka-* 'division (of an army)', it is justified to look for a non-Indo-European source of the word. In Haspelmath & Tadmor (2009) there is no entry for 'division of an army', 'regiment', 'battalion' or the like but only for 'army' itself. In the World Loanwords Database, the word is listed for 40 languages with 44 entries; of these, 24 are marked "clearly borrowed", 3 "probably borrowed" in http://wold.clld.org/meaning/20-15#2/32.2/-4.8 (4 February 2018). The numbers would probably not differ greatly for the names of smaller bodies of soldiers. In English and German, both concepts are named with borrowed words: *army/division*, *Armee/Division*.

As is well known, in contemporary German and English, *Division/division* is a technical term for the military concept of 'division of an army', and this is clearly originally a Latin noun derived from the verb *dīvīdere* 'to divide'. Though pre-existent in German as a Latin mathematical term since the 15th century, it was re-borrowed with its military meaning – and temporarily with its French *s*-plural – at the beginning of the 18th century from French (Pfeifer et al. 1997: s.v. *dividieren*), clearly owing to the military dominance of France and her occupation of parts of the Holy Roman Empire. In English, where the word has been attested with a variety of applications since the 14th century, the military use sets in a. 1597 with Shakespeare's Henry IV (Part 2, act I, scene 3, line 70). Hence this military term is in both languages a superstratal or prestratal borrowed noun derived from a verb

meaning 'to divide'. This suggests that a possible source is the superstrate we assume for Proto-Germanic, i.e. Punic.[33]

In Phoenician *plg* means 'district, region' (Krahmalkov 2000: s.v.); other derivatives or meanings are not attested. However, if one takes the Hebrew evidence into consideration, specifically Biblical Hebr. *pᵊluggåh*, i.e. *pᵊluggā* 'division (of priests for service)', Nabataean Hebr. *ploogah* [plu.ga] 'army-company, group, squad',[34] then it is plausible that Phoenician and Punic had a word belonging to the *p-l-g* root with the meaning 'division of an army'. We assume Punic to have had *⁺plgt*, viz. *pᵊlugga(t)* 'division', the counterpart of Hebr. *pᵊluggā* 'division', with 'division of an army' as a normal specialization exactly as in Hebrew, cf. also E *division* and G *Division*.

The word-formation type *CuCuCC-* (> *CᵊCuCC-*) with geminate third radical is listed and illustrated in Huehnergard (2015: 57). All 36 feminine nouns of this formation occurring in the Hebrew Bible are listed in Mettinger (1971: 3–4), together with their attestation. For *pᵊluggā* 'division' (more exactly its plur. constr. *pᵊluggōṯ*), the information given is "hapax" and "Chron[icles]" (viz. 2 Chron. 35.5):

> From the morphological point of view, the form of *qᵉtullā* is an infinitive (fem.) of the form *qutul*, the development being *qutúlat* > *qᵉtullā* with a secondary gemination of the third radical. […] Words belonging to one of the two principal categories have purely concrete meanings. They form a very heterogeneous group but can all be understood as results of the following developments: infinitive > verbal noun / abstract > concrete. Some of these substantives denote the result or product of the act: […] *ʔᵃsuppā* the result of the collecting: the collection.
>
> (Mettinger 1971: 5f.)

The application to *pᵊluggā* is straightforward: 'the result of the dividing: the division'.

We assume the Punic counterpart of Hebrew *pᵊluggā*, Pun. *⁺plgt* 'division, specifically division of an army', vocalized *pᵊlugga*,[35] to have entered Pre-Germanic in two shapes. The first is with a more adaptive way of integration, in which the schwa of the first syllable was interpreted as the root vowel with a [u]-colouring due to

---

33. The following Semitic etymologies based on the *p-l-C* root family were originally proposed in Vennemann (1998a).

34. Cf. Brown et al. (1979: s.v.; Baltsan 1992: s.v.). Several further words derived from the same verbal root *p-l-g* are listed in Brown et al. (1979) and also in Gesenius (1915), among them the verb *pålag* 'to divide' itself and the noun *pᵊlaggåh* 'division' (also 'stream'), in the plural *pᵊlaggōṯ* 'division, sections of tribe' (where the latter may rather have to be vocalized *pᵊluggōṯ*); Huehnergard (2015: 41) lists *pᵊlaggôṯ* 'streams'. Gesenius (1915) glosses *pᵊlaggåh* as 'Gau (als Abteilung eines Stammes […])' [district (as division of a tribe)], also 'stream'.

35. The final *-t* was lost early but preserved orthographically both in Phoenician and Punic. The final *-a* may have received secondary length.

the following /u/ (probably anticipatory rounding).[36] However the hypothetical result +*pulugga*- was structurally problematic. The main issue would have been the sequence [ug], which was unlikely to be a part of a Pre-Germanic root or part of derivative morphology. Deleting this inconvenient sequence, especially if perceived as functionless by the borrowers, would have solved the problem, and hence we propose that exactly this happened with +*pulga*- as a result, which regularly developed into PGmc. +*fulka*- 'division of an army' by the following changes: +*p* and +*g* were shifted to PGmc. +*f* and +*k*, respectively, in the First Consonant Shift (Grimm's Law); the gender was changed from feminine to neuter, possibly because the word formation was interpreted as *a*-stem.

Gender changes in the borrowing process are very common. They may occur haphazardly but also under the influence of phonetically or semantically adjacent terms. E.g., Lat. *sigillum* n. 'seal (e.g. on a ring face)' was borrowed into German as +*sigil*, MHG *sigel*, G *Siegel* n., but Lat. *speculum* n., VLat. *spēclum* 'mirror' as OHG *spiagal*, MHG *spiegel*, G *Spiegel* m. In the domain of construction, Latin *mūrus* m. 'wall', *fenestra* f. 'window', *spīcārium* n. 'granary' became OHG *mūr* f., *fenstar* n., *spīhhāri* m. (G *Mauer* f., *Fenster* n., *Speicher* m.). The military term semantically closest to +*fulka*- 'division of an army' is +*harja*- 'army'; its reflexes occur with feminine and masculine gender in Old Saxon, with neuter and masculine gender in Old High German, with masculine gender in Old English, Old Norse, and Gothic (Kluge 2011: s.v. Heer); in Modern German *Heer* 'army' is neuter.

2. PGmc. +*flukka*- 'flock, company, troop'

We propose that a second way of adopting the source word Pun. +*pᵊlugga* with a more imitative process resulted in PGm. +*flukka*, well attested in the Germanic daughter languages:

> E *flock*, OE *flocc* m. 'flock, company, troop'
> ON *flokkr* m. 'body of men; company, host; band, troop, party'
> ModIcel. *flokkur*, ModNorw. *flokk*, NSwed. *flock*, NDan. *flok*
> MLG vlocke 'crowd, flock'

The etymological situation concerning this word is the following. De Vries (1977: s.v. *flokkr*) writes: "Wohl zu *fliúga* [to fly] (etwa eig[entlich] 'sich schnell bewegender Haufe'?), vgl. *flykkjast* [to gather]." [Possibly belonging to *fliúga* 'to fly' (perhaps

36. This would have been reinfored by a significant number of cases in which *u* was the vowel of an unstressed syllable that had a syllabic sonorant in Proto-Indo-European: PIE +*l̥, r̥, m̥, n̥* > PGmc. +*ul, ur, um, un*.

really 'rapidly moving crowd'?), cf. *flykkjast* 'to gather'], similarly Kroonen (2013). We trust that few will find this satisfactory. Barnhart (ed., 1988: s.v. *flock*[1]) writes tersely "of unknown origin". The best we have found is in the OED[1]: s.v. *flock* n[oun][1]: "The etymology is obscure. As both in Old English and Old Norse the word means only an assemblage of persons, it can hardly be connected with fly v.[1]; the hypothesis that it is cognate with folk n. is satisfactory with regard to meaning, but its phonological admissibility is doubtful." Since in our approach *folk* and *flock* are merely two loan adaptations of the same source word, a satisfactory semantic correspondence is to be expected, and since the phonological correspondence does not have to be explained in terms of language-internal phonology but follows from the etymological identity of the two words, the phonological admissibility too is less of a problem. We suggest that the formal integration could have happened as follows. The schwa of the first syllable was interpreted more in line with the Punic form, as phonetic, and the second vowel was seen as the root vowel. Even though a root-final geminate /gg/ was against the constraints on Indo-European root structure, we think this would not have been problematic. The reason is that Kluge's Law generated a number of words with geminate stops. Consequently, it is quite plausible that this root with a final geminate was perceived as not so unusual, and left unchanged. From this, regular sound changes yield PGmc. ⁺*flukka-*.

Since both ⁺*fulka-* and ⁺*flukka-* occur only in Germanic and are therefore *a priori* potentially of non-Indo-European origin, we find it very pleasing that our loanword approach not only identifies a probable non-Indo-European source language but at the same time implies a clarification of the disputed relationship between the two words.

3. West Gmc. ⁺*plōg-* 'plough'

Whereas Gmc. ⁺*fulka-* and ⁺*flukka-* were derived from a Phoenician *p-l-g* word before the operation of Grimm's Law, West Gmc. ⁺*pleha-* (attested only in Old English), ⁺*plega-* 'to cultivate', ⁺*plōg-* 'plough',[37] which all three appear to be words derived from the Semitic roots *p-l-ḥ* and *p-l-g*, both meaning 'to divide' (the meaning 'to plough' is actually recorded in the dictionary for the root *p-l-ḥ*, see Brown et al. 1979: s.v.), must have been borrowed after the operation of Grimm's Law. For the *plough* word it is known that it is a very late borrowing (cf. the section on the *plough* word farther below); hence it is natural for it not to have undergone Grimm's Law. With regard to the Semitic root, a pair such as ⁺*fulka-* and ⁺*plōg-* (likewise E

37. Cf. Vennemann (1998a) for ⁺*plega-* and ⁺*plōg-*. OE *plēon* (< ⁺*plehan*) was brought into the group by Mailhammer (2007: 202–208).

folk and *plough*, G *Volk* and *Pflug*) thus forms a *Lautverschiebungsdublette* [sound shift doublet]. Such doublets are well known for the Second Consonant Shift, the High Germanic (Old High German and Lombard) Shift, e.g. ***Pfaffe/Papst*** 'cleric, pope', ***Pferch/Park*** 'corral, park', ***Pfirsich/Persien*** 'peach, Persia', ***Ziegel/Tiegel*** 'tile, crucible'.

The *plough* word is well attested in the Germanic languages but of unclear origin, according to the literature (see the most recent account in Kroonen 2013). As to the etymology of West Gmc. $^{+}$*plōg-* 'plough', initial $^{+}$*p-* makes it likely that it is not an Indo-European word.

Since the plough is evidently an instrument for dividing the ground, an etymological relatedness to the other *p-l-g* words with the basic meaning of dividing is obvious enough. This is also evident from the following array of attested forms and meanings in the OED[3], even though this conclusion itself is again cast into doubt:

> In support of an etymological connection with the Germanic base of German *pflegen* attention has been drawn to Old Frisian *plōch*, *plōg* gainful employment, gain, profit, community of interests, Middle Dutch *ploech* division of a society, heap of things, Middle High German *phluoc* business, living, income, Old Icelandic *plógr* gain, produce; however, it has also been argued that these show a separate homonym, unrelated in origin to the word for 'plough'.

In the remainder of this section we will take up and improve upon the proposal in Vennemann (1998b: 250–252). A meaning 'plough' is not attested in Phoenician for the noun pattern $^{+}$*palagg* (> *palōg*), nor is it for a corresponding noun *pālāg* in Hebrew. However, the Common Semitic noun pattern *CaCaC* is used with a wide range of meanings, and it is listed in a set of eight Modern Hebrew instrument noun patterns in Laks (2015: 5). Friedrich & Röllig (1999: §196.a) write: "Gemeinsem[itisch] **qatalu* > ph[önizisch]-pun[isch] Mask. *qatól*, Fem. *qatált* (hebr. *qātāl*, *q^{e}tālā* […])." [Common Semitic **qatalu* > Phoenician-Punic masculine *qatól*, feminine *qatált* (Hebr. *qātāl*, *q^{e}tālā*).][38] Thus a noun *palōg* with the general meaning 'splitter, divider' was naturally derivable from the verbal root *p-l-g* 'to split, to divide' (with its normal hardening or gemination of the third radical); of this nominal meaning, 'tiller, ploughman' would merely be a special application. We may also take into account the adjectival pattern *CaCCaC* (with a medial geminate) for which Huehnergard (2015: 51) writes "Frequently substantivized, as an agent noun or noun of occupation" and offers the following examples: $^{+?}$*ayyal-* > $^{?}$*ayyāl* 'stag (leader?)', $^{+}$*gannab-* > *gannāḇ* 'thief', $^{+}$*dayyan-* > *dayyān* 'judge', $^{+}$*ṭabbaḥ-* > *ṭabbāḥ* 'cook, guard', $^{+}$*tsabbal-* > *sabbāl* 'bearer'. Clearly *pallāg*, and therefore Punic *pallōg*, 'tiller', would exactly fit into this mould (compare the analogy of Arabic

38. We use *q-t-l* to refer to triliteral verbal roots *C-C-C*.

fallāḥ 'plougher, tiller' ~ *falaḥa* 'to split the ground, to plough' as a derogatory term for members of the indigenous populations by the conquering Arabic armies).

A pattern which offers an even closer semantic match is C*i*C*ā*C. Thus, Moscati et al. (1964: § 12.8d) write: "The pattern *qibār* is employed in some languages for tools or instruments: e.g. Ar[abic] *niṭāq*, Heb[rew] *'ęzōr*, Eth(iopian) *qənāt* (all three meaning 'belt')." Thus, ⁺*pilāg* would designate a tool for dividing (the ground). According to Moscati et al. (1964: §8.77), Proto-Semitic *ā* would become Phoenician *ō*, "(e.g. *macom* for **macām* 'place')"; according to Friedrich & Röllig (1999: §79), Proto-Semitic *ā* becomes Canaanite *ō*, which most often becomes Phoenician *u*, but sometimes *o*. Thus, Punic ⁺*pilōg* 'a tool for dividing (the ground)' would be yet another posible etymon with a form and meaning approximating those of the Germanic ⁺*plōg*- word.

With Punic accent falling on the final syllable, it does not matter whether the model asumed for West Germanic ⁺*plōg*- 'plough' was Punic *palōg* or *pallōg* 'tiller', or ⁺*pilōg* 'a tool for dividing (the ground)': Since Indo-European roots could only be monosyllabic, a constraint that persisted into Germanic, the phonological outcome of the loanword adaptation had to be monosyllabic ⁺*plōg*-; and whether, in the case of *palōg* or *pallōg*, the shift of semantic application of the word from agent noun to instrument noun already occurred in Common Semitic or was an innovation of the Carthaginians of the North does not matter: Agent noun → instrument noun is an ordinary pragmatic, and then semantic, shift in the languages of the world. Since the *plough* word is native only to Germanic and apparently was only transmitted to the Romans via Gaul, we believe the designation yielding ⁺*plōg*- 'plough' to be a colonial Germano-Punic coinage carried to Gaul together with the improved type of object. The high regard in which matters agricultural were held in the Carthaginian world is well known. It is evident in Figure 4, which does not, of course, show Pliny's innovative Germano-Punic wheel plough named ⁺*plōg*- but the traditional scratch plough named *ard*, cf. Figure 5.

In the entry for G *Pflug* 'plough' Seebold concludes that 'despite all efforts the explanations proffered concerning the origin of the word have remained insufficient' (Kluge 2011). In the subsequent courageous attempts nevertheless to find Indo-European connections, Seebold perceptively draws a connection to the ⁺*plegan* word. That is exactly the path Vennemann (1998b) followed, and which we still find correct: The plough is an instrument for dividing the ground, and therefore ⁺*plōg*- 'plough' should be assumed to derive from the same Semitic root *p-l-g* 'to divide' as ⁺*plega*- 'to cultivate', i.e. originally 'to divide, and thus to take care of, the ground'.

Figure 4. Carthage, Zeugitana. Circa 241 BCE. Sardinian mint (?). AE 21 mm. Obverse: Head of Tanit, Reverse: Plow. (www.wildwinds.com/coins/greece/zeugitana/carthage/SNGCop_233.jpg, last accessed 19 February 2016)

Figure 5. Scratch plough and wheel plough (www.ploughmen.co.uk/about-us/history-of-the-plough, last accessed 19 February 2016)

4. Gmc. ⁺*pleha-*/⁺*plega-* 'to cultivate'

Published etymological suggestions for this verb have been fraught mainly with formal issues. The first problem is that it is unclear what form to reconstruct for Proto-Germanic. The majority of the attestations in the daughter languages point to PGmc. ⁺*plega-* (Seebold 1970: 362–363), but *h* must be presupposed for OE *plēon* and derived nouns in Old English (e.g. *plēoh* 'danger') and possibly in Old High German (*pfliht* 'care, duty').[39] Seebold (1970: 363) argues against relating them by *Grammatischer Wechsel* ('grammatical alternation', Verner's Law), for two reasons. First, he says, it is unclear why German should have generalized the voiced Verner

39. We say "possibly" because in the complete absence of **pflehan* from Old High German, a derivational relationship of OHG *pfliht* with the well-attested OHG *pflegan* by the Germanic Spirant Law ("primärer Berührungseffekt") is *a priori* more likely than one with the non-existent **pflehan*.

variant throughout, and second, all etymological suggestions worthy of discussion point to $^{+}g^{h}$. We do not think that these are necessarily convincing arguments, but we do note that a hypothetical reconstruction as pre-Germanic $^{+}$*blek-* lacks any tangible connection within Indo-European.[40] Such a root would also be suspicious, because of the extreme rarity of good examples of PIE ^{+}b. The second and fatal problem is that etymological suggestions working with PIE $^{+}g^{h}$ have failed to account for the variants with *-h* (see Mailhammer 2007a: 202–205 for further details; also Kroonen 2013).

As discussed above, it is likely that Punic had derivatives of the root *p-l-g* 'divide'. We would also like to suggest that it had derivatives of a root *p-l-ḥ* with the meaning 'cleave, plough'. This meaning is attested in both Arabic and Hebrew for this root: Arabic verb *falaḥa* 'to plough',[41] i.e. 'to cultivate the soil' and ultimately 'to divide/split/cleave (the ground)'. The same verb, *pålaḥ* meaning 'to cleave, to plough' occurs in Hebrew (Brown et al. 1979: no. 6398; Klein 1987: s.v. *plḥ*), alongside *pålag* 'to divide'. It may therefore be assumed that also closely related Phoenician, and hence also Punic, had verbs from both *p-l-g* and *p-l-ḥ* both 'divide'.

We propose that the two formal variants found in Germanic, $^{+}$*pleha-* and $^{+}$*plega-*, reflect these two assumed Punic verbs. That is, the first goes back to the Punic equivalent of *pålaḥ* 'to cleave, to plough', and the second to the Punic equivalent of *pålag* 'to divide'. It is conceivable that the close semantic and formal similarity of the two verbs helped what effectively came to look like a merger of these two verbs in Germanic, namely from the point of view of Verner's Law.

The remaining formal details can be summarized as follows. The root form of the verbs was adopted as $^{+}$*plVh-* and $^{+}$*plVg-*, potentially motivated by the fact that many inflected verb forms of the hypothesized Punic roots *p-l-ḥ* and *p-l-g* would have had no vowel between *p* and *l*, e.g. all forms of the prefix conjugations but also in the suffix conjugation of the Yip'il (causative) stem (see e.g. Krahmalkov 2001: 155 for attestations). This root form would have then been integrated into the verb system as two standard verbs $^{+}$*plehanan* and $^{+}$*pleganan*.

The semantic side of this etymology requires the assumption that the original meaning at the time of borrowing was different to what is commonly reconstructed. The meaning that Seebold (1970: 363) reconstructs for this verb is

---

40. There are indeed cases in which German generalizes the voiced Verner variant, e.g. OHG *werban* 'turn to', but they are rare (Mailhammer 2007: 125). Further, it is possible to assume that there were two roots in Pre-Germanic, one with zero grade and one with full grade (Mailhammer 2007: 128, n 146). And, needless to say, just because tangible etymologies point to the *g*-variant, this does not mean that the *h*-variant can be neglected.

41. With $^{+}p > f$ by regular Arabic sound change (see e.g. Kienast 2001: 29).

'commit, wager'. This is plausible, based on the attestations in the daughter languages, but not compelling. It has to be noted that the range of attested meanings is relatively broad, comprising for instance also 'care for, lead, supervise' (in Old High German). Moreover, the word is not attested in North or East Germanic, which makes the reconstruction less certain because it may be that these branches could have shown yet another meaning. In the face of this situation – attestations only in West-Germanic and a range of meanings that do not compellingly lead to Seebold's reconstruction – we would like to propose that this verb originally meant something else.

We would like to put forward the suggestion that the original meaning of PGmc. $^{+}$*pleha-* and possibly $^{+}$*plega-* was 'to cultivate', i.e. 'to take care of the ground', namely with *culture* still understood in the sense of *agriculture*, the root being the same as in Latin *col-ere* ' to farm, live on (s.th.), cultivate, honor', *agri-col-a* 'farmer' (lit. 'tiller of the ground'). From there the meaning developed away from the area of agriculture to 'cultivate, care for', and then further to the meanings attested in the daughter languages (Kroonen 2013 in fact reconstructs 'take responsibility' as meaning for this word) . The assumption that the root *p-l-ḥ* underlies a Germanic verb meaning 'to cultivate' finds strong support in the fact that this very root forms the Arabic verb *falaḥa* 'to plough', i.e. 'to cultivate the soil' and ultimately 'to divide/split/cleave (the ground)'. As mentioned above, the cognate verb, *pålaḥ* meaning 'to cleave, to plough', occurs in Hebrew and may therefore be assumed also to have occurred in closely related Punic.

The borrowing of two key agricultural terms for 'plough' and the respective verb is easily understandable if it is considered that the Carthaginians were famous for their agricultural achievements, which they also applied to colonial situations (cf. Chapter 8).

To sum up, PGmc. $^{+}$*pleha-*/$^{+}$*plega-* lacks a plausible internal etymology. Our proposal attempts to overcome this challenge by suggesting that the two forms reflect two different but semantically and formally very similar source words in Punic.

5. PGmc. $^{+}$*sibjō-* 'sib, extended family, clan, kinfolk'

This word has several suggested etymologies, all of which are judged as doubtful, see the following quotation from Kluge (2011).

> **Sippe** *Sf std.* (8. Ih.), mhd. *sippe,* ahd. *sippa,* as. s*ibbia.* Aus g. **sebjō*[42] *f.* 'Sippe', auch in gt. *sibja* 'Verwandtschaft', anord. *sifjar Pl.* 'Verwandtschaft', ae. *sib(b)*, afr. *sibbe.* Außergermanisch vergleichen sich apreuß. *subs* 'eigen, selbst', russ. *osóba* 'Person', russ.-kslav. *sobi* 'Eigenart, Charakter'. Weiter zu dem anaphorischen und dann auch reflexiven Pronomen (↗*sich*). Die Zusammenstellung ist in allen Teilen wenig sicher. Das Wort ist in allen germanischen Sprachen geschwunden; im Deutschen wurde es im 18. Jh. wiederbelebt. Im Englischen vgl. *gossip* 'Gevatterin', eigentlich 'gute Verwandte'; ↗*sich*, ↗*Sitte*. (Kluge 2011: s.v.)
>
> [**Sippe** substantive (feminine), standard vocabulary (8th century), MHG *sippe,* OHG *sippa,* OS s*ibbia.* From Gmc. **sebjō*[43] fem. 'sib, (extended) family', also in Goth. *sibja* 'relationship, kin', ON *sifjar* plur. 'relationship, kin', OE *sib(b)*, OFris. *sibbe.* Comparisons outside Germanic: OPruss. *subs* 'own, self', Russ. *osóba* 'person', Russian Church-Slav. *sobi* 'quirk, character'. Further to the anaphoric and then also reflexive pronoun (↗*sich*). All parts of these comparisons are far from secure. The word has been lost in all Germanic languages; in German it was revived in the 18th century. For English cp. *gossip* 'godmother', originally 'good relative'; ↗*sich*, ↗*Sitte*.]

We agree with this assessment, as do Pfeifer et al. (1997). Kluge (2011) does not specifically mention the comparison with Skt. *sabhấ*, whose meaning is selectively rendered as 'assembly, social gathering, meeting' in Orel (2003 s.v. *seƀjō) and Pokorny (Pokorny 1989 s.v. se- 3 *s(u̯)e-bho-, s(u̯)o-bho-*) but as 'assembly hall, gambling-house; assembly, company; [post-Vedic also] court of a king or of justice; traveler's shelter, refuge, cabin' in Macdonell (1929). Nor do they mention the formally attractive adjective *sábh-ya* 'belonging to, suitable for, present in, an assembly' (Macdonell 1929). They apparently consider all this rejected together with the reflexive pronoun (see e.g. Kroonen 2013) as etymologically relevant for the word. Nor do they mention comparisons with names of Italic or Germanic tribes such as the Semnones, Sabelli and Suebi (cf. Pokorny 1989: ibid., Barnhart 1988: s.v. *sib*). We agree: A family is not an assembly, social gathering, or meeting (or a *Versammlung* [convention] or a *Gemeindehaus* [town hall], as Pokorny translates *sabhấ*, or a gambling-house, for that matter); and whether those tribal names have anything to do with the reflexive pronoun is itself questionable. The connection with the reflexive pronoun seems the most appealing, but we note that this stem formation type does not normally have a pronominal derivational base (Bammesberger

---

42. The word is in all Germanic languages attested with radical *i* rather than *e*; the only apparent exception ON *sefi* 'relative' is derived from Proto-Norse *+ga-sibjan* in de Vries (1977: s.v.). The reconstruction with *e* thus rests entirely on its Indo-European etymology. We therefore prefer the reconstruction PGmc. *+sibjō*.

43. Cf. the preceding note.

1990: 112–114). In addition, the Latin word *familia*, borrowed directly or indirectly (via French) into German (*Familie*) and English (*family*), suggests that words of this meaning are borrowable. Lat. *familia* (together with *famulus/famula* 'servant') may itself be borrowed, possibly derived from a non-Indo-European base (Ernout & Meillet 1985). In Haspelmath and Tadmor (2009), the word for 'family' is listed for 41 languages with 48 entries; of these, 17 are marked "clearly borrowed", 3 "probably borrowed".[44] It is therefore not at all unlikely that *⁺sibjō-* too is a loanword, and the fact that no certain comparison within Indo-European has been found may be taken as reason to look for a non-Indo-European source.

An attempt was made in Vennemann (2003a) to connect the Germanic word to the Semitic root *š-p-ḥ* with the general meaning 'family'. This root is attested in Phoenician-Punic in a masculine noun *špḥ* with the meaning 'family' (Krahmalkov 2000) or 'clan, family' (Segert 1984: 203; Hoftijzer & Jongeling 1995 *špḥ*1) and in Hebrew in the feminine noun *mšpḥh* (*mišpaḥā, mišpāḥāh*), a prefix formation with the meaning 'clan, large/extended family, kinship group': *mišpaḥā* 'clan, large family' (Lipiński 2001: §62.4; Brown, Driver & Briggs 1979; Koehler & Baumgartner 1967). The optimal source word for the Germanic feminine *⁺sibjō-* would be a feminine noun *šipḥāh* (*špḥt* in Phoenician or *šfḥh* in Hebrew with *f* < *p*) meaning 'family'; but a noun with exactly this form and meaning is not attested.[45]

Thus, all we can do is check whether the word-formation rules of Hebrew – those of Phoenician are essentially the same – allow the formation of a feminine noun *špḥh* with the vocalization *šipḥā* ([šifḥā]). This would then be the ideal loan etymon for PGmc. *⁺sibjō-*.

Checking the pattern *CiCCat-* in Huehnergard (2015: 36), we find it illustrated with two groups of feminine nouns:

> "isolated substantives"
> *gib̲ʿā* (< *⁺gibʿ-at-*) 'hill', *ḥiṭṭā* (< *⁺ḥinṭ-at-*) 'wheat', *ḥemʾā* (< *⁺ḥimʾ-at-*) 'curd', *ʿeḡlā* (< *ʿigl-at-*) 'heifer', *qiryā* (< *⁺qiry-at-*) 'city', *šib̲yā* (< *⁺siby-at-*) 'captivity'

44. Cf. http://wold.clld.org/meaning/2-82#2/24.3/-4.8 (11 February 2015).

45. The avoidance of *šipḥāh* in the sense of 'family' and the use of alternatives may have been caused by the meaning of 'maid, maid servant' (Brown et al. 1979: s.v.) or 'house-born girl who was not a legal daughter of the *paterfamilias*' (Lipiński 2001: §29.20) attached to the same vocalization. This avoidance would be independent of the question whether this word was really connected etymologically to the 'family' root; this connection is called "fraglich" [questionable] in Koehler et al. (1990: s.v. *šifḥah*). Cf. Vennemann (2003a: Section 4).

"deverbal"[46]
dimˢā (< ⁺*dimˢ-at-*) 'tears', *ziqnā* (< ⁺*ðiqn-at-*) 'old age', *ḥemdā* (< ⁺*ḥimd-at-*) 'desire', *minḥā* (< *minḥ-at-*) 'gift', *śimḥā* (< ⁺*śimḥ-at-*) 'joy'

Hence the feminine noun pattern *CiCCa(h)* is well exemplified, and positing a Hebrew ⁺*špḥh*, i.e. ⁺*šipḥā* [šifḥā] (< ⁺*šipḥat*), and its Punic equivalent ⁺*špḥt* would be equally well supported.[47] The vocalization of this equivalent form would be either ⁺*šipḥō* (Phoenician *ā* > *ō*) or ⁺*šipḥa,* with secondary tensing ⁺*šipḥā*.[48]

A Punic ⁺*šipḥō* or ⁺*šipḥā* 'family, clan' would be an ideal input into the loan adaptation mechanisms and internal developments of early Germanic to yield the ⁺*sibjō-* word, not only semantically, which is obvious, but also phonologically:

1. The initial ⁺*š-* could only be adopted as ⁺*s-*, because the target language possessed no other sibilants. This is for example the case in Greek and Latin transcriptions of Punic words (Friedrich & Röllig 1999: 45). However, it is not even certain that Punic, especialy "colonial Punic" had *š*. While traditional Punic probably did have *š* (Friedrich & Röllig 1999: 45), it did eventually merge with /s/, and possibly as early as 500 BC (Krahmalkov 2001: 25). Consequently, it is possible that the Punic sibilant was phonetically alomost identical to that of Proto-Germanic and could be mapped onto it straightforwardly.
2. The ⁺*-i-* would naturally be mapped on the phonetically similar ⁺*-i-* of the target language.
3. The initial syllable would be perceived as unaccented, so that the Punic ⁺*-p-* would have to be represented by Pre-Germ. ⁺*-b-* under Verner's Law – assuming a very early borrowing of the word, which is likely because of its pan-Germanic attestation. Penultimate and ultimate word accentuations were widespread in older Semitic (Lipiński 2001: §25.1–8). "Phoenician, [which] appears to have had a strong stress accent, usually accentuates the final syllable

46. If identical with the root *š-p-ḥ* 'to pour out, spill, shed', which Gesenius (1915: s.v. *šפḥ*) considers probable, the root *š-p-ḥ* of *mišpāḥāh* 'family' is deverbal by origin. If this plays a role in the word-formation behavior may be open to question.

47. Brunner (1969: 114, n 640) without a word of discussion assumes Hebrew *šipḥā* – he writes *šifᵉḥāh* – and equates it with PGmc. ⁺*sibjō-* (or rather with G *Sippe*) within his Nostratic framework, thus identifying *šipḥā* and ⁺*sibjō-* genetically. We are pleased by his recognition of the phonetic and semantic similarity of the two items but reject his explanation. To us any and all similarities between Germanic and Hebrew – or rather Phoenician, viz. Punic – are the result of language contact.

48. Punic spelling, being conservative, would be ⁺*špḥt*, with traditional vocalization ⁺*šipḥōt*; cf. the dicussion in Vennemann (2016: Section 3).

of the word, which was tone-lengthened with the consequent change *ā* > *ō*" (Lipiński 2001: §25.6; see also Krahmalkov 2001: 33).[49]

4. The Semitic voiceless pharyngeal fricative *ḥ* had no exact phonetic counterpart in pre-Proto-Germanic. As mentioned above, it was in the process of being lost, and its exact phonetic value cannot be determined, though it is likely that it was a fricative in Older Punic (Friedrich & Röllig 1999: 17). However, the option of adapting it as a velar fricative, as we suggested in the case of ⁺*plehanan*, did not exist before Grimm's Law (PIE ⁺/k/ > PGmc. ⁺/x/), which was when we think this word might have been borrowed. Given that it has to be assumed that the laryngeals had already disappeared, and given the restrictions on root structure, it is likely that this consonant was interpreted as part of the stem rather than the root. That is, it would have been interpreted as part of the stem-forming suffix (see (6) below). The only suffix with at least some phonetic similarity that would have been available was the glide ⁺*j*, turning this noun into a *-jō* stem.
5. Whether the final vowel of the Punic input was ⁺*-a*, ⁺*-ā*, or ⁺*-ō*, its reflex in Proto-Germanic would most likely be ⁺*-ō*, pre-PGmc. ⁺*-ā* and ⁺*-ō* coalescing in PGmc. ⁺*-ō*.
6. From a Punic point of view, the segmentation of ⁺*sibjō* would be ⁺*sibj-ō*, but since *sibj-* is not a possible Germanic root, the *-j-* would of necessity be reanalysed as a stem-formation suffix, yielding a new segmentation ⁺*sib-j-ō*. Both *-ō* and *-jō* are common nominative feminine endings, and both are multifunctional, marking feminine nouns with a range of meanings (Meid 1967: §§69, 74, 75); for *-ō* Meid (1967: §69.2) lists a collective function, and feminine nouns ending in *-jō* are especially frequent (§§74, 75).

In sum, the accommodation of a feminine Punic ⁺*šipHō* (with some weak reflex of the *ḥ*, and with final accent) as ⁺*sipjō*, with Verner's Law ⁺*sibjō*, and its accommodation as a Germanic *-jō* noun would be the default, and as such the word would easily be integrated into the Germanic lexicon and morphology. PGmc. ⁺*sibjō* then would yield the language-specific reflexes by well-known rules: the frication of post-vocalic mediae in North Germanic (*sifjar* Pl.), the gemination of all consonants (except ⁺*r*) before ⁺*j* in West Germanic (OE *sib(b)*, OFris. *sibbe*), the fortition of geminate mediae in High German (*sippa*), and the various final reductions and losses (G *Sippe*, E *sib*).

Let us ask, in concluding this section, what may have motivated those pre-Germanic people to borrow a Semitic word with the meaning 'family'. To

49. Vijūnas (2005) evidently misunderstood this explanation (in Vennemann 2003a) to involve Proto-Semitic and rejected the applicability of Verner's Law on account of its less strict word-final stress placement.

understand this, it is important to realize that the concept of 'family' is not something "naturally" given; we have encountered this misconception in discussions a number of times.[50] On the contrary, what constitutes a family is determined societally; 'family' is a legal term. In Paul (1900), §53 "Die Blutsverwandten" [Relatives by blood] and §54 "Sippe" [Extended family] in subsection 4 "Verwandtschaftliche Verhältnisse" [Family relationships] are sagaciously included in section B "Rechtsaltertümer" [Legal antiquities] of Chapter IX "Recht" [Law] (cf. von Amira 1900). The legal status of the Germanic *⁺sibjō* '(extended) family' in particular is emphasized in section XII.3 "Die Sippe und Großfamilie" ['The sib and extended family'] in Krüger (1983: I. 531–535). Societal changes in legal domains tend to be reflected in corresponding lexical changes, notably under foreign influence. This is most obvious after conquests, as in England after the Norman Conquest, when almost the entire Anglo-Saxon legal terminology was ousted by French terms (cf. Lutz 2002: 148–149). Thus, *family* ousted *sib* under superstratal French influence, its precise phonological shape co-determined by the prestratal Latin *familia*. In German, prestratal Latin *familia* ousted all older terms. MHG *sippe* only survives in dialects; in the standard language *Sippe* enjoyed a literary revival in the 18th century (Kluge 2011: s.v.). Crosslinguistically, borrowing words for 'family' is common (see above).

6. PGmc. *⁺aþal-/⁺aþil-/⁺aþul-* 'nobility, noble', *⁺ōþil-/⁺ōþal-* 'inherited landed property'

This complex of words has no convincing etymology. The best connection offered is to PIE *⁺h₂el-* 'nourish, raise' with comparisons to L *indolēs* 'native skill' and L *prōlēs* 'offspring' and further Toch A *ätäl* 'man' proposed by Szemerényi (1952). However, like other suggestions for this word, this etymology is not considerd convincing by the standard etymological dictionaries (Kluge 2011; Boutkan & Siebinga 2005; Lloyd et al. 1998; Philippa et al. 2003; de Vries 1977; Kroonen 2013). There are serious problems with the semantics – it is not clear how 'nourish, raise' or 'man' can come to denote 'noble'. Not all nobles are overfed or outgrowing, and not every man is a nobleman (see also Boutkan & Siebinga 2005; Kroonen 2013). Kroonen (2013) wonders whether the primary meaning is represented by Norwegian *al* 'pith' [the Norwegian variant of *aðal*, *al* masc. 'pith (of trees), essence'], but does not develop this any further.

50. What constitutes a family varies from one culture to the next. Indigenous Australian languages lack words translatable as 'family' in a Western sense altogether.

Consequently, there is no connection of this complex outside Germanic (see also Kroonen 2013). However, there are also formal peculiarities in Proto-Germanic, which suggest that we are dealing with a complex of stems that cannot be straightforwardly derived from one base form. Rather, the evidence suggests that there are several parallel forms to be reconstructed. We discuss each datum in the following.

First, there is the adjective of which G *edel* 'noble' is a reflex, and which Kluge (2011) interprets as a denominal adjective. The derivation of the adjective OE *æðele* and the related West Germanic forms from **aþal-ja-* goes back to Heidermanns (1993). This reconstruction is perfect semantically but flawed phonologically: It creates a problem having to do with the umlaut history of German. If one does not make Heidermanns' move but analyses the adjective as a *-ja*-stem on its own terms, one would not reconstruct *⁺aþal-ja-* but *⁺aþil-ja-*, because umlaut of *a* to *e* in Old High German, so-called "primary umlaut", occurs with predictable regularity only before an *i*, *ī*, or *j* of an immediately following syllable; by contrast, an *i*, *ī*, or *j* of a later syllable usually only causes "secondary umlaut", resulting in a more open umlaut vowel which only becomes visible in writing in Middle High German (cf. Braune 2004: §27). It is true that even such an *i*, *ī*, or *j* may cause primary umlaut; but this only happens if the intermediate vowel is changed into *i* by assimilation, and even then the radical *a* often remains unaffected. Thus, the normal cases are shown by *magatīn*, diminutive derived from *magad* 'girl, virgin', and, with medial vowel assimilation, by *fravali*/*fravili* 'fresh, impudent'. The case with primary umlaut resulting from this assimilation of the medial vowel is shown by *framadi*/*fremidi* 'strange, foreign, unknown' and *managī*/*menigī* 'crowd'. Only one example – beside the case at hand, *edili* – is provided for the case where all attestations show primary umlaut throughout, *hemidi* 'shirt'.[51] But this word is better reconstructed as *hamiþ-ja-*, according to Kluge (2011: s.v. *Hemd*). Considering the fact that OHG *edili* is unexceptionally attested as such, viz 14 times (Köbler 1994: s.v.), PGmc. *⁺aþil-ja-* likewise is a better reconstruction on phonological grounds than Heidermanns' *⁺aþal-ja-*.[52]

The relevance of this comparison is seen when we look at a noun which Heidermanns derives as a neuter *-ja-* stem with the meaning 'noble family, nobility': West Norse *øðli*, *eðli*, East Norse *ædli*, OS *aðali*, OHG *adali*, *edili*. Here the Old Saxon and Old High German forms do suggest Heidermanns' reconstruction *⁺aþal-ja-*, because the reflexes can be interpreted as the kind of variation resulting from secondary umlaut. By having two different derivations, PGmc. *⁺aþil-ja-* >

51. Cf. Braune (2004: §27, n 3). It is attested 28 times, according to Köbler (1994: s.v.).

52. That OHG *edili* should not be derived from *⁺aþal-* but from *⁺aþil-* was also proposed by Kluge (1926: §193); cf. Lloyd & Springer (1988: s.v. adal).

OS *eđili*, OHG *edili* (adjective) and PGmc. ⁺*aþal-ja-* > OS *ađali*, OHG *adali*, *edili* (noun), we interpret this part of the material as ordinary phonological developments and avoid Heidermanns' aporia of deriving both resulting sets from the same reconstructed source. By providing two different possible sources for this semantically tightly knit sets of forms, we at the same time leave room for a modicum of mutual analogical influence. This seems advisable in view of the fact that de Vries (1977) even reconstructs ⁺*aþil-ja-* rather than ⁺*aþal-ja-* for ON *eðli*.[53]

The OE adjective *æðele* differs significantly from the corresponding Continental West Germanic forms. It cannot be reconstructed as PGmc. ⁺*aþil-ja-* because the ⁺*i* immediately following the radical ⁺*a* would change it into *e* rather than *æ*. Here Heidermanns' reconstruction as ⁺*aþal-ja-* would yield the correct result. But so would a reconstruction with Heidermanns' alternative stem, ⁺*aþul-ja-*, whose base is attested in ON *aþul-* 'marital'. Indeed, one of the environments in which ⁺*a* does not change into *e* in Old English but into *æ* is trisyllables with the vowel sequence ⁺*a-u-i*.[54] There the ⁺*i* (or ⁺*ī* or ⁺*j*) umlauts the ⁺*u* into ⁺*y*, which appears in Old English as *e*, and the radical +*a* becomes *æ* rather than *e* (cf. Campbell 1959: §203; Brunner 1965: §50.1 n 2, §96.3). Thus ⁺*aþul-ja-* correctly yields *æðele*. This reconstruction finds support in the parallel development of the set OE *æðeling*, OFris. *etheling*, OHG *ediling*, ON *ǫðlingr* 'nobleman': OFris. *etheling* and OHG *ediling* are best derived from ⁺*aþil-ing-a-z*, but labial umlaut requires a reconstruction ⁺*aþul-ing-a-z* for ON *ǫðlingr*. Here again Old English probably sides with Old Norse: OE *æðeling* too is best derived from ⁺*aþul-ing-a-z*, and this is indeed the standard reconstruction.

The apparent ablaut of stem-form doublet ⁺*aþal-*/⁺*aþil-* (likewise the triplet ⁺*aþal-*/⁺*aþil-*/⁺*aþul-*) cannot be comfortably accommodated within Indo-European or Germanic (see Vennemann 2012a for more details and further problems).

Words for 'noble' and 'nobility' are sometimes native, such as Latin *nōbilis*, plural *nōbilēs* (older ⁺*gnōbilēs*), '[literally] the known ones', *nōbilitās* (noun); *optumās*, plur. *optumātēs* '(literally) the best'; Greek *ἀριστεύς*, from *ἄριστος* '(the) best', Homeric plur. *ἀριστῆες* 'optumātēs'. But very often words for 'noble' and 'nobility' are borrowed. For such borrowing there is only one condition that must

---

53. He writes (s.v. *eðli*, *øðli*): "Vielleicht zwei Grundformen **aðilja* und **aðulja*, wenn nicht einfach *eðli* > *øðli* in infortis-position." [Perhaps two basic forms **aðilja* und **aðulja*, unless simply *eðli* > *øðli* in infortis-position.] Cf. Lloyd & Springer (1988: s.v. *adal*: "*eðli*, *øðli* … < **aðilja* … **aðulja*)." (Non-initial ⁺*þ* > *ð* is a general Old Norse sound change.) Lloyd et al. (1998: s.v. *edildegan*) write under *edili*[1] only 'adjective, *-ja-* stem', but do not indicate the derivational base.

54. Further examples for the *a-u-i* case are: *gædeling* 'companion' (OS *gaduling*), *æfest* 'envy' (< +*av-unsti-*), *fæsten* 'fasting' (OS *fastunnia*), *Sæterndæg* 'Saturday' (< Lat. *Sāturnī* + OE *dæg* [substituting for Lat. *diēs* 'day"]), *lætemest* 'latest' (<⁺*latumist*, cf. Goth. *aftumists* 'last', *auhumists* 'highest', etc.), and others. Cf. Campbell (1959: §203); Brunner (1965: §50.1 n 2).

be – and invariably is – fulfilled: The giving language must be prestigious either as a superstrate, the language of conquerors, or as a prestrate, a language of cultural appeal. We see this verified in Haspelmath & Tadmor (2009) where the directions of borrowing for the 'nobility' words are the following: Arabic → Hausa; French → Romanian; Chinese → Japanese and Vietnamese; Old French → Provençal; Old High German / Middle High German → Polish, Czech, Slovenian, Lithuanian; Middle Low German → Old Norse, Danish, Swedish; Early New High German → Danish; Lombard → Italian. The best studied case of all of them is the replacement of the inherited family of *athel* 'nobility, noble' in English and its replacement by French *noble* and its family after the Norman conquest. In Haspelmath & Tadmor (2009) the word for 'noble (noun)' is listed for 19 languages with 22 entries (for three of them two words each are listed); of these, 6 are marked "clearly borrowed", 2 "probably borrowed".[55] One particularly striking case with particular relevance to our proposal is Hausa *áadàlíi*, which is judged as "clearly borrowed" (namely from Arabic).[56]

As shown, the Proto-Germanic word family with the bases $^{+}$*aþal-*/$^{+}$*aþil-*/$^{+}$*aþul-* 'noble, nobility' and $^{+}$*ōþil-*/$^{+}$*ōþal-* 'inherited landed property' has no plausible Indo-European etymology, and words with the meaning 'noble' are often borrowings from superstrata. This is consistent with our proposal, which is that the entire complex is the result of borrowing from Punic. Unfortunately, similar-looking words for 'noble' etc. are not attested in Phoenician, but they are in closely related Hebrew and also in Arabic. The first dicovery leading in this direction was made by Hermann Möller, who lists the following Arabic forms in his dictionary (Möller 1911: 19, where *þ* is written idiosyncratically for the voiceless interdental fricative for which Semitists write *ṯ*):

- *ʾaþala* 'it had root, or a foundation, it was (became) firmly rooted'
- *ʾaþula* 'it (nobility) was of ancient origin'
- *muʾaþþulun* Part. 'having root, old, of ancient origin'
- *ʾaþlatun* 'root, foundation, origin (of a thing and of a man), > honor, dignitas, gloria'
- *ʾaþālun* 'glory, honour, dignity, nobility'

---

55. Cf. http://wold.clld.org/meaning/19-36#2/33.3/-7.8 (11 February 2015).

56. We agree that Hausa *áadàalíi* is an Arabic loanword, but we do not derive it from *ʕadala* 'just, to act fairly', as is done in the database, cf. http://wold.clld.org/word/73101839552983621 (11 February 2015), but from a word of the family of the Arabic root *ʾ-ṣ-l* 'root', with *ʾaṣāla* 'originalness, original or traditional kind [e.g. of Arabhood], genuineness, noble kind of descent, purity of origin', *ʾaṣīl* 'of pure, noble descent; thorough-bred; genuine, firmly rooted, innate, native inhabitant', or its variant *ʾ-þ-l*, with *ʾaþala* 'to fortify, strengthen; become rich', *ʾaþīl* 'with roots; of noble origin', *ʾaþālu*^{n} 'glory, honour, dignity, nobility', cf. Lane (1863: s.v.); Wehr (1985: s.v.).

This word group is well documented also for modern Arabic, e.g. in Wehr's (1985) dictionary:

- *ʾaþala* 'befestigen, stärken; reich werden (etc.)' [to fortify, strengthen; become rich]
- *ʾaþīl* and *muʾaṯṯal* 'verwurzelt; von vornehmer Herkunft' [with roots; of noble origin]

Möller compares these Arabic forms with *þ* (better *ṯ*, see below) directly to the Germanic *+aþala-* words with their *þ*. This is grossly misleading, because what he does not mention is that the root *ʾ-þ-l* of this word group is but a variant of the regular Classical and Modern Arabic root *ʾ-ṣ-l* with the basic meaning 'root'. He writes thorn, *þ*, for the Arabic voiceless interdental fricative, for which Semitists usually write the underlined plosive, in this case *ṯ*; and he does so apparently in order to make it look more Germanic-looking, and he directly identifies the Arabic variant, *ʾaþala* etc., with Germanic *+ʾaþala-* in terms of a genetic (Nostratic) relationship. This is surely wrong, and on two accounts: First, not the exclusively Arabic variant *ʾaþala* etc. should be compared to words outside Semitic but rather words derived from the basic root *ʾ-ṣ-l* which alone is also attested in other Semitic languages; for an item to figure in a Nostratic comparison it should at least have a chance of being truly Semitic, rather than merely being a variant of a Semitic word in only a single Semitic language. Second, since the *athel* word cannot be proven to be Indo-European rather than just Germanic, it cannot reasonably be claimed to be cognate with a Semitic word within a Nostratic framework, because Nostratic cognates by definition have to be both Proto-Indo-European and Proto-Semitic. In our framework such phonological and semantic similarity as in the case of Arabic *ʾaṣala-* (including its variant *ʾaṯala-*) and Germanic *+ʾaþala-* can only be owed to borrowing, not of course between Germanic and Arabic but involving a language related to Arabic.

The regular root *ʾ-ṣ-l* 'root' of which *ʾ-ṯ-l* 'root' is but a variant is very well represented in Arabic, and with meanings that are favorable for our purpose.[57] For the following selection from Classical Arabic cf. Lane (1863: 64–66):

- *ʾaṣula* 'it had, or came to have, root, or a foundation'
- *ʾaṣālatun* (verbal noun) and *ʾaṣila* 'it was, or became, eminent, noble, or honorable'

57. We emphasize that the etymology proposed here (and already in Vennemann 2001) is not based on the Arabic forms with *ʾ-þ-l* (*ʾ-ṯ-l*), as claimed errorenously in Voigt (2013: 339).

- *ʾaṣlun* 'foundation, base (of a wall), stem, trunk, stock (of a tree); that upon which the existence of (anything) rests, or depends (such as the father is to the offspring); origin, such as the origin, root, race or stock (from which a man springs); having lineage, or pedigree; noble, generous'
- *fulānun fī ʾaṣli ṣidqin* 'someone of an excellent origin, or race, or stock'
- *mağdun ʾaṣīlun* 'glory, honor, dignity, or nobility, having a firm root or foundation'
- *mālun lahū ʾaṣlun* 'real or immoveable property, property such as consists in a house or land yielding a revenue' (literally 'property having root or a foundation')

The last three examples underline the fact that *ʾ-ṣ-l* is not only used positively by itself but also tends to appear in positive combinations with other words (*ṣidq* 'truth, sincerity', *mağd* 'glory, honor, dignity, nobility', *māl* 'property, wealth, riches'). – The following Modern Arabic examples are taken from Wehr (1985: s.v.):

- *ʾaṣl* 'root; stem [of a tree]; foundation, origin, descent'
- *ʾaṣula* 'to be or become firmly rooted; stand fast; be of noble origin'
- *ʾaṣlī* 'original, Proto-; genuine, pure; true'
- *ʾaṣlan* 'originally, primarily'
- *ʾaṣīl* 'of pure, noble descent; thorough-bred; genuine, firmly rooted, innate, native inhabitant'
- *ʾaṣāla* 'originalness, original or traditional kind [e.g. of Arabhood]; genuineness; noble kind of descent, purity of origin'
- *taʾṣīl* 'rootedness; determination of origin'
- *taʾṣīla* 'pedigree, genealogy'
- *taʾaṣṣul* 'rootedness'

The semantics of the etymology of words meaning 'noble, nobility' based on plant concepts as 'root' and 'stem [of a tree]' appears satisfactory. The range of meanings from 'root, stem of a tree' to 'nobility' in Semitic has perfect matches in languages closer to home. In German there is *Stamm* 'stem', *Baumstamm* 'tree-trunk'; *abstammen* means 'to stem from', *Abstammung* 'descent', *Stammvater* 'common male ancestor of a family', *Stammbaum* 'pedigree', cf. *Stamm* 'tribe'. French has *souche* 'stump, root-stock'; *de vieille souche* means 'of the old stamp, of the right sort', e.g. *un français de vieille souche* 'an arch-Frenchman', cf. also *faire souche* 'to produce offspring'; grammarians use the term *mot-souche* 'radical word, root'. In English the word *stock* has many uses, but one line of development comprises the following meanings:[58]

58. Cf. OED[2] (s.v.).

- A tree-trunk deprived of its branches; the lower part of a tree-trunk left standing, a stump. (This sense is obsolete or archaic.)
- The trunk or stem of a (living) tree, as distinguished from the root and branches.
- The source of a line of descent; the progenitor of a family or race.
- A line of descent; the descendants of a common ancestor, a family, kindred.
- A race, ethnical kindred; also, a race or family (of animals or plants); a related group, "family" (of languages). Also … an ancestral type from which various races, species, etc. have diverged.
- Pedigree, genealogy; a genealogical tree. (This sense is obsolete.)
- In *Law*, the first purchaser of an estate of inheritance.

The root *ʾ-ṣ-l* 'root' is unfortunately not as richly attested in Biblical Hebrew as it is in Arabic. As a matter of fact, only the adjectival noun *ʾăṣîl* is attested, and only as *ʾṣyly*, vocalized *ʾăṣîlê* 'the nobles (plural construct)', namely in *ʾṣyly bn yśrʾl*, vocalized *ʾăṣîlê bənê yiśrāʾêl* 'the nobles of the children [sons] of Israel' (Exodus 24.11). Brown et al. (1979: no. 678) list *ʾṣyly* as a masculine noun meaning 'side, corner, chief' with two applications: (1) "*sides* (borders) of earth" and (2) "fig[uratively] *nobles*"; but they go on to derive the latter ("perhaps") from the same root as Arabic *ʾ-ṣ-l* 'root', "met[aphorically] *origin, stock*–prop. a man having a (known) origin, sprung from an ancient and famous stock." But the fact that more forms derivable from this root meaning 'noble, nobility' do not occur in the Hebrew Bible is purely accidental. That the root was amenable to all the regular word formation devices in Biblical Hebrew is not only shown by related Arabic but also by Modern Hebrew where the root *ʾ-ṣ-l* is well reflected: Two words for 'nobility' are *ʾṣwlh* [atsulah] (in the sense of 'aristocracy') and *ʾṣylwt* [atsilut] (in the sense of 'nobleness'); the word for 'nobleman' is *ʾṣyl* [atsil], for the adjective 'noble' *ʾṣyly* [atsili], for 'ennobled' *nʾṣl* [neʾetsal] (cf. Baltsan 1992: s.vv.).[59] As can be seen in the transcriptions, Hebrew *ṣ*, which was an emphatic voiceless dental sibilant fricative at the time the Hebrew Bible was written, is pronounced as a voiceless dental affricate in Modern Hebrew.

---

59. Sheynin (2013: 195) makes two claims about the meaning of the root in Arabic and Hebrew. First, he says that "the meaning of 'noble' and further 'wealthy' probably developed with a later semantic extension that happened during the social development of pre-Islamic Arab tribes (i.e. in the last centuries before Islam)". If this is correct, then Arabic cannot be taken as evidence for the meaning 'noble' in the first millennium BC. This is irrelevant for our etymology, as the meaning 'noble' is attested in Biblical Hebrew, which is closer to Phoenician anyway. Thus, the meaning 'noble' is not affected by Sheynin's claim. Second, he says that in Hebrew the meaning of this root is 'noble', but that this is unconnected to "a semantic field 'rulers'" (195). Again, this is irrelevant for our etymology, because we propose that the source etymon had the meaning 'noble' not 'ruler' or anything like that.

No doubt then that the pattern CCVC of the root *ʔ-ṣ-l*, i.e. *ʔṣVl*, was well represented with V = [*a*, *i*, *u*] not only in Arabic but also in Hebrew. As word-initial consonant clusters are not tolerated there, the cluster *ʔṣ* is broken up anaptyctically by a short constant *a* vowel transliterated *ă* or ^{a}, hence *ʔăṣîlê* or *ʔ^{a}ṣîlê*.

The root *ʔ-ṣ-l* does occur in Phoenician with meanings such as 'root', but only in the word *ʔṣl* 'beside, adjacent to' (Hebr. *ʔeṣel*), cf. Krahmalkov (2000: s.v.). Klein (1987: s.v. *ʔṣL*^{I}) suggests that this word may be derived from the same root as Arab. *ʔ-ṣ-l* (in *ʔaṣl* 'root') and thus the same as the root of Hebr. *ʔṣyly* 'the nobles (of)', but Gesenius lists them as two separate roots. Brown et al. (1979: no. 678) consider both possibilities. Mailhammer (2010: 54, note 13) merely mentions the Phoenician root, with reference to Tomback (1978). We conclude that since *ʔăṣVl-* is copiously represented with the core meaning 'noble' in Arabic and at least once in the restricted corpus of Biblical Hebrew, nothing speaks against the assumption that $^{+}$*ʔăṣVl-* 'noble' formed an ordinary word family also in Phoenician and Punic.

The remaining question is how words borrowed from this family were adapted in Proto-Germanic. Since the core meaning 'noble' is the same on both sides, the question narrows down to the phonological adaptation. The only serious part of this question concerns the *ṣadhe*, /ṣ/, an emphatic, probably glottalic-affricate dental sibilant. Proto-Germanic had no exact counterpart of this sound. The only phonetically similar speech sounds it did have were *s*, /s/, which was sibilant but not dental,[60] and *þ*, /θ/, which was dental but not sibilant. Since word borrowing is a phonological operation, i.e. it starts in the minds of bilingual individuals that are aware both of the phonetics and of the phonology of both languages involved, *s* was less suited because it paired up with Punic *s*. This left *þ* as the only alternative.[61] Thus the following pair of mapping rules was obeyed in Punic-to-Germanic loanword adaptation: Pun. *s* → PGmc. $^{+}$*s*, Pun. *ṣ* → PGmc. $^{+}$*þ*.[62]

---

60. We assume it to have been post-dental, [s̪], perhaps palatal-alveolar, slightly shibilant, perhaps closest phonetically to the modern Icelandic /s/.

61. The possibility that $^{+}$*aþal-* and its family were borrowed before the operation of Grimm's Law, part $^{+}t > {}^{+}þ$, is less comfortable but can be accommodated as well: The Greeks adopted the city name (Arabic) *Ṣūr*, Hebrew *Ṣōr*, Phoenician ṣʀ, as *Τύρος*, whence *Tyre*.

62. Pairings of substitution strategies which do not only search for the greatest phonetic similarity of source and target speech-sounds but at the same time strive to preserve phonemic contrasts of the source language in the target language are not uncommon. E.g., in Latin loanwords in late Old High German (Upper German), Lat. *p* is usually mapped on the affricate *pf* even though it is phonetically more similar to OHG *p* (spelled *p* or *b*). The reason is that OHG *p/b* was needed as a target for Lat. *b*: Lat. *p* → OHG *pf*, Lat. *b* → OHG *p/b*. More generally (Vennemann 1991: 78–79):

> When borrowing occurs between two languages that both possess a series of tenues and a series of mediae in their affected sub-inventories, phonetically distinguishing them as fortes vs.

There are two additional reasons for assuming a kind of sound substitution rule, Pun. *ṣ* → PGmc. *+þ*:

1. The same sound substitution, Pun. *ṣ* → PGmc. *+þ*, applies in the borrowing of Phoenic. *ʾrṣ* [vocalized *ʾerṣ*] 'land, earth' as PGmc. *+erþō* 'earth'.
2. The phonetic affinity between *ṣ* (*ṣadhe*) und *þ* (*thorn*) is proved by a development within Semitic itself: As we have seen above, Arabic has a variant of the *ʾaṣl* root in which *ṯ* [θ] substitutes for *ṣ*; cf. *ʾaṯīl* alongside *ʾaṣīl* 'of noble descent'.

The phonology of the etymological derivation Pun. *ʾăṣVl-* → PGmc. *+aþVl-* may even be better than so far apparent. Semitic words based on the root *ʾ-ṣ-l* begin with a phonemic glottal stop, /ʔ/. Germanic did not have a glottal stop phoneme. However, many speakers of the Germanic languages pronounce a glottal stop, [ʔ], at the beginning of word-initial naked syllables, especially when that syllable is accented; this phonetic habit may therefore be reconstructed for Proto-Germanic as well. Thus PGmc. *+aþal-*, *+aþil-*, *+aþul-*, were probably pronounced *+*[ʔaθal-], *+*[ʔaθil-], *+*[ʔaθul-], perhaps (and definitely after the accent shift) *+*['ʔaθal-], *+*['ʔaθil-], *+*['ʔaθul-]. It is well known that this phonetic habit is referred to in the traditional explanation of the fact that Germanic alliterative meter allowed words with vocalic onsets to occur in the alliterating feet of the Germanic long-line, as e.g. in *Beowulf*, v. 3:

> *hū ðā æþelingas ellen fremedon*
> 'how the nobles used their power'

which, according to this explanation, had ordinary consonantal alliteration based on [ʔ]:

> *hū ðā ʔæþelingas ʔellen fremedon*

Using <ʔ> for both the phonemic Phoenician and the phonetic Germanic glottal stop, the etymology proposed here can be succinctly summarized as follows:

> Punic *+ʾaṣal-*, *+ʾaṣil-*, *+ʾaṣul-* 'noble [etc.]'
> → Proto-Germanic *+ʾaþal-*, *+ʾaþil-*, *+ʾaþul-* 'noble [etc.]'

As to PGmc. *+ōþVl-* (V = *a* or *i*) 'inherited landed property', all we can say is that there exist two etymological possibilities. The first is that it may be a language-internal

---

lenes, then normally tenues are mapped onto tenues and mediae onto mediae in the borrowing process – independently of the presence of additional features distinguishing the tenues and media besides the fortis/lenis contrast, e.g. affrication, aspiration, or voice.

See also the most recent treatment of the topic in Uffmann's (2015: 652–660) chapter "How are loanwords adapted?", especially the section "Phonological adaptation" (Uffmann 2015: 654–657).

vṛddhi formation based on *+aþVl-* 'nobility, nobles', because inherited landed property is the distinguishing mark of the nobility. This approach presupposes that this particular word-formation device was still productive in Proto-Germanic times. The second is that the *+ōþVl-* word or words may have been borrowed together with the *+aþVl-* group. The evidence for the second possibility is weak. A Semitic word possibly meaning 'landed property, real estate' is attested for Nabataean (Brown, Driver & Briggs 1979; but see Cohen 1970), an Aramaic dialect, linguistically close to Canaanite Phoenician and Hebrew, but unfortunately nowhere else. The word's vocalization unfortunately is not known, but it is at least possible that a corresponding Phoenician noun, with a fitting vocalization, made its way into Germanic yielding *+ōþal-*/*+ōþil-* 'inherited landed property' (assuming that that was the meaning of the Nabataean word).

The Phoenician etymology of Germanic *+aþal-* and its family is in our view the most important of all assumed Carthaginian influences: In English, the words *noble* and *nobility* are loanwords borrowed from Norman French, the language of the historical Norman French superstrate. The lesson to be learned from this is the following: If it is true that a superstratal loanword for the Germanic ruling class is Phoenician then that ruling class must once have been Phoenician. We confidently believe the etymology to be correct, and therefore the conclusion to be true.

7. PGmc. *+erþō* 'earth'

The Semitic etymology for PGmc. *+erþō* (fem.) 'earth' is a traditional one, to be found e.g. in Möller (1911: 72). It is there embedded in a Nostratic framework, whereas we assume *+erþō* to be a Semitic, namely Punic, loanword. Its attestation in Germanic is the following: Goth. *airþa*, ON *jorð*, OS *erđa*, OE *eorþe*, OHG *erda*, etc. On the Semitic side we find the following feminine noun: Phoenic. *ʾrṣ* [vocalized *ʾerṣ*[63]] 'land, earth', Hebr. *ʾereṣ*, Ugarit. *ʾarṣ*. This vocalization is known from inscriptional Latinized *ers* 'land', cf. Krahmalkov (2001: 32, citing Goodchild 1954: 2.14).

Mailhammer (2010: 54, n 13) reconstructs a Punic form *+ʾrṣt* with the feminine moving suffix *-ōt* (< *-at*) and the vocalization *+ʾerṣōt*, whence Pun. *+ʾerṣō* with regular Late Punic loss of the final *-t* (Segert 1976: §§43.412.1, 2); thus, Pun. *+ʾerṣō* → PGmc. *+erþō* with nothing but the minimal adaptive sound substitution Pun. *ṣ* → PGmc. *+þ* (cf. Section 6. above) and substitution of the most productive feminine suffix *-ō* for the Punic tense long *-ō*. We may add that the suffixal feminine noun is

63. This vocalization is based on the Hebrew form, *ʾereṣ*. However, in contrast to Hebrew, the Punic form lacks the second /e/, at least until late Punic (Segert 1976: 82; see Mailhammer 2010: 54 n 13 for further details).

attested as Neo-Punic *ʾrṣt* 'province of a country', cf. Krahmalkov (2000: s.v.). But even a simple Phoenician feminine noun *ʾerṣ* would per default be adopted into the most common Germanic feminine noun stem class, viz. as PGmc. $^{+}$*erþō*.

We naturally accept this traditional etymology into our framework. It provides welcome independent support for the sound substitution Pun. *ṣ* → PGmc. $^{+}$*þ*, which was essential in the etymology of the $^{+}$*aþVl-* family in the preceding section.

8. PGmc. $^{+}$*skellingaz* / $^{+}$*skillingaz* 'shilling'[64]

The Germanic word $^{+}$*skellingaz* or $^{+}$*skillingaz* 'shilling' is well represented in all branches of Germanic. The literature offers four different etymologies, which derive the word respectively (1) from the verbal root $^{+}$*skell-* 'to resound, ring' or from an adjective derived from it, (2) from the verbal root $^{+}$*skel-* 'to divide', (3) from the nominal stem $^{+}$*skeldu-* 'shield' (which may in turn be derived from the verbal root $^{+}$*skel-* 'to divide', cf. Kluge 2011: s.v. *Schild*), and (4) from the Latin noun *siliqua*. These four etymologies cannot, of course, all be valid, but they can all be incorrect; and indeed we find none of them convincing.

Boutkan & Siebinga (2005: s.v. *skilling* subst[antive] m[asculine]) declare the [Frisian] word to be of Proto-Indo-European origin, reconstruct Proto-Germanic **skel-* + *-inga-*, and support, among the etymologies reviewed, that which derives the word from the verbal root PIE **(s)kelh*$_1$- (with reference to Pokorny 1989: 548–550).[65] Boutkan and Siebinga assume that the immediate base is nominal because they claim that "in the older stages of Gmc., the *-ing*-derivations are denominal". We think the most serious problem of this etymology is in the semantics, as we do not find a development from 'resound, call, shout' to 'weight, coin' convincing at all, especially not without substantial parallels. The same objection applies to a semantic derivation from 'divide'.

An etymology based on 'shield', is semantically more plausible, but only if the coin depicted a shield. That a coin would be named after its shape, as e.g. Krahe (1967: 199) suggests, is unlikely. This is in harmony with a generalization formulated by Dimitrov (2005) on the evidence of the material put on the internet by the

64. This section is based on Vennemann (2012b).

65. Pokorny has among several the two following root forms: **kel-* [etc.] 'rufen, schreien, lärmen, klingen' [to call, shout, make noise, sound] and **skel-* 'schallen, klingen, laut schlagen' [to ring out, sound, chime].

Kreissparkasse of Cologne,[66] that as a rule, apart from the very common case of borrowing, coins are named after one of the following aspects:

1. the place of coinage, e.g. German *Heller* after Schwäbisch Hall, *Taler* [whence *dollar*] after Joachimstal;
2. the coined image; here Dimitrov cites French *écu* and German *Batzen*, the latter probably named for the depicted bear;
3. the weight or some other mark or measure, e.g. German *Mark*, engl. *pound*; a subgroup are coins simply named 'piece';
4. the metal or color of the coin, e.g. German *Silberling*, Lat. *aureus*,
5. a certain fraction or multiple, e.g. German *Fünfer*, Am.-Engl. *quarter*, Gk. *τετράδραχμον* 'a coin of four drachms';
6. the function; here Dimitrov cites Romanian *ban(u)* 'tax for the Stupan or *Ban*', i.e. the rulers of Serbia and Croatia;
7. a political decision, e.g. *Euro*, *Cent*, Bulgarian *Stotinka* (one hundredth of a Lew, a loan-coinage after French *centime*).

That the coin featured a shield after which it then was named is possible. Coins in antiquity did not infrequently depict shields (Schrötter & Bauer 1970: 596–597), and that coins can be named 'shield' can be seen from cases such as the French *Écu* 'shield' (Schrötter & Bauer 1970: 170). However, there are formal problems with this derivation. To start with, Kluge (2011) calls the assumed sound changes bizarre ("abenteuerlich"). However, there is also a morphological issue with the reconstruction ⁺*skildling*. The reconstructed form ⁺*skildling* needs to account for the second *l*, which cannot be part of the root for lexical and morphological reasons. Thus, it is either an unspecified and consequently *ad hoc* extension of some sort, or part of the suffix. It is obvious that an unmotivated extension would be a serious problem for the etymology. Consequently, it must be verified whether it can be seen as part of the suffix. This is theoretically possible, as the common and very widespread Germanic suffix *-ing* did indeed have a variant *-ling*. However, this variant seems to show its greatest productivity only in the Germanic daughter languages (Krahe 1967: 208). It is therefore questionable whether it can be assumed that it was already productive at the time when the 'shilling' word was formed. As a result of this discussion, we believe that the reconstruction ⁺*skildling* is problematic on formal grounds.

Brøndal (1917: 147–149) argues that the *shilling*-word would be best explained as a cultural loanword. We agree with this assumption, as will be seen directly.

66. Cf. "Geldgeschichtliches Museum", www.geldgeschichte.de/Einfuehrung_Rund_ums_Geld.aspx (4 February 2016).

However, the phonological derivation he proposes is indeed far from direct or cogent, and we will not accept it: *silicula* (diminutive of *siliqua*) > **səlḳecla* > **slecla* > **sklel´a* > **skella* or **skel´a*, then the addition of *-ing* to the former of these two hypothetical results.

The best etymology for a coin in the language of a people not yet very familiar with monetary matters – a condition which may safely be assumed for the early Germanic people – is a reconstruction as a loanword from the language of a culturally advanced or economically prestigious people in contact with the people under study.[67] Within the theory of the origin of Germanic that we are presenting in this book, for Proto-Germanic this contact language would be Punic.

Carthage began issuing her own coins rather late, but when she did she naturally made the shekel (*šeqel*) the basic unit of monetary weight, and thus the basic coin (cf. šqʟ 'fixed weight, sheqel' in Krahmalkov 2000), as it was in the Phoenician world (cf. Acquaro 1988; Jacques Alexandropoulos in Lipiński (ed.) 1992: s.v. *Numismatique*; Huss 1985: 489–490); cf. Figure 6.

Figure 6. Carthage, Zeugitana EL [electrum] Shekel, ca 310–290 BC. Head of Tanit left, in necklace with multiple pendants & triple pendant earring, hair wreathed with grain, pellet before neck / free horse standing right, pellet before forelegs (www.wildwinds.com/coins/greece/zeugitana/carthage/i.html; 13 February 2016)

The Phoenician vocalization of the noun *šql* is not attested. In a very closely related language, Hebrew, the vowels are variously written as *šæqel* (Feyerabend 1998: s.v.), *šæqæl* (Brown et al. 1979: s.v.), or *šɛqɛl* (Levin 1995: 145 n 130, 286); plur. *šᵉqālīm*. In Hebrew, the accent was apparently on the penult, thus *šæ.qæl* (Levin: [šɛ́qɛl]).

67. The US dollar (USD), itself an adaptation of the German Taler (Low German *Daler*), is used as national currency in several countries (e.g. the USD in Ecuador), in some of them "nationalized", e.g. the Fijian dollar (FJD); cf. the Internet site de.wikipedia.org/wiki/Liste_von_Dollarwährungen (2 February 2016).

Phoenician, however, had a stricter word-final accent than Hebrew. There is evidence that the Phoenician accent moved to the final syllable even in cases where in Hebrew it rested on the penult (Lipiński 2001: §25.6).

Punic word-final accent, tensing of vowels in open and singly closed syllables, and pretonic vowel reduction constitute a sequence of changes [ʻšɛ.ḳɛl] > [šɛ.ʾḳɛl] > [šə.ʾḳel] and thus, with the Punic merger of /š/ and /s/ into /s/ (Krahmalkov 2001: 25–26), lead to a Punic pronunciation [sə.ʾḳel].

We submit that this term, *šeqel* [sə.ʾḳel], was adapted into Germanic by adding the individualizing suffix *-ing-* (for which see Munske 1964: 127; Krahe 1967: 198–211) to the borrowed base *šeqel* [sə.ʾḳel]. Owing to the Germanic constraints on root structure, the latter would yield the Germanicized nominal base ⁺*skel-*, which later, with vowel raising before the suffixal high vowel, became ⁺*skil-*. The borrowing process would produce a kind of variation between ⁺*skelling* and ⁺*skelding* which resembles that of the later, West Germanic ⁺*paning*, ⁺*panning*, ⁺*panding* 'penny', except that the form ⁺*skiling* is not attested. The reason for this may be that a perceived bi-moricness of the closed stressed syllable of Punic *šeqel* [sə.ʾḳel] was replicated in Germanic by keeping the accented syllable closed in the derivate, ⁺[ʾskel.], which could most easily be achieved by geminating the final root consonant: ⁺[ʾskel.liŋ.gaz.]. It is conceivable that the epenthetic *-d-* served exactly the same purpose: Both ⁺[ʻskel.liŋ.gaz.] and ⁺[ʾskel.diŋ.gaz.] keep the stressed ⁺[ʾskel.] together in one syllable, while the syllabication ⁺[ʾske.liŋ.gaz.] would destroy it. The availability of two designations containing a prosodically identical or near-identical part, ⁺[.**ʾskel**.] or ⁺[.**sə.ʾḳel**.] on one hand, ⁺[.**ʾskel**.liŋ.gaz.] / ⁺[.**ʾskel**.diŋ.gaz.] on the other, may have been desirable to bilingual speakers of languages sensitive to syllable-structure based prosody. This was apparently a general tendency in Punic, cf. the following passage from Friedrich & Röllig (1999: § 97.c, where the reference is to Meyer 1966–1972):

> Im Poenulus gut bezeugt ist die sekundäre Gemination, 'die einen an sich in offener Silbe stehenden Vokal von den durch Wort- und Satzdruck bedingten Veränderungen in Qualität und Quantität ausnimmt.' (Meyer, H. Gr. I §28, 3 a)
>
> ['In *Poenulus*, secondary gemination is well attested, 'which exempts a vowel from the changes of quality and quantity conditioned by the word and sentence accent, even if this vowel stands in an originally open syllable.']

That the Semitic shekel word meaning 'fixed weight' and 'coin' was liable to borrowing from the economically advanced Canaanite cultures into Indo-European is shown by Greek *σίγλος*, *σίκλος* 'Gewicht und Münze' [weight and coin] (Frisk

1973: s.v.; Chantraine 1968: s.v.) from "something like the Hebrew … *šiq(ə)le*^{y} … (construct plur.)" (Levin 1995: 145, n 30, also 286).[68]

We mention in closing this section that PGmc. $^{+}$*skellingaz* / $^{+}$*skeldingaz* and Pun. *šeqel* both appear to transport the same set of meanings. The Germanic word meant (1) a "segment of fixed weight [of precious metal]",[69] and (2) a certain coin. The same two meanings are given for the Canaanite word *šeqel*: E.g., the Hebrew meanings are given in Brown et al. (1979: s.v.) as "orig. = weight; late Heb. = coin"; and Krahmalkov (2000: s.v. *šql* II) glosses the Punic word as 'fixed weight, sheqel'. That the weight meaning of the Canaanite word is basic to the noun follows from the fact that it is a nominalization of a triliteral verbal root *š-ḳ-l* which in Hebrew and Phoenician means 'to weigh (trans. and intrans.), to weigh out'. The Proto-Semitic root was $^{+}$*ṯ-ḳ-l*, as in Arab *ṯaḳula* [θaḳula] 'to be heavy (perf.)', *ṯaḳl* [θaḳl] 'load'. Proto-Semitic $^{+}$*ṯ* changed into *š* in Canaanite (Moscati et al. 1964: § 8.17).

9. West Gmc. $^{+}$*paning*, $^{+}$*panning*, $^{+}$*panding* 'penny'[70]

The *penny*-word, West Germanic $^{+}$*paning*, $^{+}$*panning*, and $^{+}$*panding*, is not attested for the other Germanic branches. Therefore, it is not known whether it existed in Proto-Germanic. In West Germanic it is copiously attested. Nevertheless, it is one of the most etymologically obscure words of this branch. The following forms are taken from the OED^{3}: s.v. *penny* and Kluge 2011: s.v. *Pfennig* and the quotation that follows from the OED^{3}: s.v. *penny*:

> OE *pening*, *pennig*, *penning*, *pending*, later *penig*; OFris. *panning, penning, pennig*; OS *penning* (MLG, LG *pennink*; MDu. *penninc*, *-ing-*, also *peni*(*n*)*c*; Du. *penning*); OHG *pfenning* (*phantinc, phenting*), *pfenting* (MHG *pfenninc, pfennic, pfennig-*, G *Pfennig*).

---

68. This word does not stand alone within Greek. Also borrowed from Semitic is μνᾶ 'Mine (Gewicht und Münze = 100 Drachmen)' [mina (weight and coin = 100 drachmas)] (Frisk 1991: s.v.), probably from Phoenician, cf. Phoen. *m-n-y* 'to count out, offer (money)' (Krahmalkov 2000: s.v. *m-n-y* II), Hebr. *månåh* vb. 'to count, number, reckon, assign', *manæh* n[omen] m[asculinum] 'maneh, mina, a weight': "The weight of the mina was 1/60 of talent; i.e., acc[ording] to older (Bab[ylonian]) standard, 982.2 grammes (= 60 shekels at c. 16.37 g.) = c. 2 lbs." (Brown et al. 1979: s.vv.). Greek μνᾶ in its turn was borrowed into Latin as *mina* 'ein griech[isches] Gewicht; Münze' [a Greek weight; coin] (Walde & Hofmann 1982: s.v.).

69. At least this meaning has been conjectured, cf. OED, sv. *shilling*.

70. This section is based on Vennemann (2006a). Acknowledgements are made there.

> The Scandinavian forms [Old Icel. *penningr*, *pengr* (Icel. *peningur*), Old Swed. *pänninger*, *peninger*, *pänigher*, *penigher*, Swed. *peng* (chiefly in plural *pengar*), *penning*, †*pennig*), Old Dan. *pænning*, *pænnigh*, Danish (plural) *penge*, (arch.) *penning*, †*pending*)] are probably ultimately borrowings from Old English, Old Frisian, or Old Saxon. A cognate is not recorded in Gothic, which has *skatts* […] for Hellenistic Greek *δηνάριος* in N.T.

At first inspection, the attested forms vary both across dialects but also within dialects. Apart from differences in the vocalism – English has forms with mid as well as low vowels – the variation lies in the medial consonants: *-n-* (e.g. OE *pening*), *-nn-* (e.g. OE *penning*, OHG *pfenning*) and *-nd-* (e.g. OE *pending* but also OHG *pfenting*). This variation cannot be reduced by any standard application of sound changes. There seems to be some diatopic distribution, however. In Old English, the geminate forms are mainly Northumbrian, the forms with *-nd-* appear to concentrate in the south, whereas the *-n-* forms are found in West Saxon and in the Midlands. On the European mainland, the geminate forms and the *-nd-* forms are attested. It is difficult to say anything definite on the ages of the variants. The most robustly attested forms with the furthest geographical spread are the geminate and the *-nd-* forms. As for English, the OED[3] interprets the form with a singleton *-n-* as the original form. As no explicit reason is given for this interpretation we can only speculate. Perhaps the Northumbrian forms are seen as secondary because it is well-known that later Northumbrian often uses double consonant spelling for etymological singletons even though not usually in the case of *n* (Brunner 1965: 189). Perhaps Orrm's spelling with a singleton is seen as showing a conservative state. In our view, the geminate forms in English can be explained more easily on the basis of the singleton forms as spellings indicating a short preceding vowel, which is indeed what happens in the history of English, than explaining singletons from geminates, as this would not be a usual case of degemination (Brunner 1965: 189–190). However, this still leaves the English *-nd-* forms unexplained.

On the continent, it looks like the *-nd-* forms occur exclusively in High German. There is a possible connection between these and the geminate forms through assimilation of *nd* > *nn* (Braune 2004: 101–102), but even if that could explain the German geminate forms, an explanation for the Low German, Dutch and Frisian geminate forms would be needed, where *-nd-* forms appear to be absent. Boutkan & Siebinga (2005) also think that the opposite, epenthesis of *d* could have happened, for which there are also examples. In short, it seems very difficult to reconstruct a single form for the attested material. This is one of the reasons why this word has no accepted etymology. We quote from the OED and Kluge & Seebold, but similar statements can be found elsewhere (e.g. Boutkan & Siebinga 2005).

As to the etymology of *penny*, the OED[3] has this to say:

> The West Germanic form apparently shows a base plus the suffix -ing […]. The identity of the base is completely unknown, as is its original form, whether **pan-*, **pann-*, or **pand-*; it is also difficult by any analysis to account for the variation between forms with and without *-d-*. Two frequent suggestions are that the word is formed on the West Germanic base of Old High German *pfant* (see pawn n.[3]; hence with original form **pand-*), or that it is formed on the West Germanic base of pan n.[1], probably on account of the similarity in shape (hence with original form **pann-*); both of these words are of uncertain further etymology. Another suggestion (perhaps not incompatible with a common origin for this word and Old High German *pfant*: see pawn n.[3]) is that the word shows a very early borrowing of classical Latin *pondus* (see pound n.[1]), although the vowel quality presents problems. If any of these hypotheses is correct, it is likely that the variation between forms with and without *-d-* results from analogy with these words or others.

The corresponding statement in Kluge (2011) is equally inconclusive:

> Mit dem ↗*-ing*-Suffix, das auch in anderen Münzbezeichnungen auftritt (vgl. etwa ↗*Schilling*); sonst ist die Herkunft unklar. Unerklärt ist vor allem das Nebeneinander von Formen mit und ohne *d*. Am ehesten frühe Entlehnung aus l[ateinisch] *pondus* n. 'Gewicht' (zu l. *pendere* 'wägen'), wobei aber verschiedene Fragen offen bleiben.
>
> (Kluge 2011: s.v. *Pfennig*)

> ['With the *-ing* suffix which also occurs in other designations of coins (e.g. *Schilling*); otherwise of unclear origin. What is unexplained in particular is the coexistence of forms with and without *d*. Most likely an early borrowing of the Latin noun *pondus* (belonging to Lat. *pendere* 'to weigh'), which however leaves a number of questions unanswered.']

This brief overview presents the three main propsals that have been made (see also Orel 2003; the word is not discussed in Kroonen 2013). First, the word has been seen as a borrowing from Latin *pondus* 'weight', see the quote from Kluge (2011) above. Second, a connection with the Modern German word for 'pawn', *Pfand*, has been made (see e.g. Grimm & Grimm 1854), and third the word for 'pan' has been suggested as a connection (see the quote from the OED).

All three explanations have problems explaining all attested variants, and are semantically awkward. And there remain more fundamental questions. The Germanic peoples did not invent coining themselves but came to know coins through contact with other peoples. Usually in this process names for coins are not created but adopted together with the coins and integrated into the system of the receiving languages. Thus, it seems more likely on comparative grounds that the *penny* word is based on a foreign word for a coin than that it is an original Germanic metaphor. This is, of course, one of the suggestions in the quotation from the OED above, where at the same time the unstable phonological form of the word

is explained in the same way, loanwords being notorious for exhibiting formal variation. Boutkan and Siebinga (2005: s.v. *panni(n)g*) tersely say "No I[ndo]-E[uropean] etymology" and suggest borrowing from a non-Indo-European language in their remarks on the formal variation of the word.

We have no objection against the idea that the word owes its existence in Germanic to contact with a non-Indo-European language. However, we find the suggestion that the contact language was a substratum less plausible for reasons outlined in Chapter 1: The Germanic peoples of the North are not likely to have dominated a population with a more advanced economic culture than they themselves possessed. It is more likely that the giving people and their language were prestratal, i.e. adstratal or superstratal as well as culturally more advanced than the Germanic populations themselves.

Interestingly, in his key paper on Germanic *p*-words Kuhn (1961) links the *penny* word – more directly than any other of his *p*- words – to the $^{+}$*plōg*-word (Kuhn 1961: 388). We gratefully accept Kuhn's tentative suggestion that both early West Germanic words may come from one and the same non-Indo-European language. Since for the $^{+}$*plōg*-word there exists a Punic etymology (see Section 3 above), the suggestion implies – though it might not have done so for its author – that the *penny* word too is of Punic provenance.

This is indeed the proposal we would like to put forth within the theory we are developing here. What needs to be done, therefore, is find a suitable base *pan-* to which the individualizing suffix *-ing* could be added (see the case of *shilling* above, resulting in the meaning '*pan-* thing', 'object with *pan-*'. We believe this *pan-* is that identified in Vennemann (2006a), which is the following.

Carthaginian coins almost all show the face of a goddess, generally assumed to be the city goddess of Carthage, Tanit, on the obverse side and various other motifs, often involving a horse or a palm tree or both, on the reverse, cf. Figure 7.

Figure 7. Silver coin, Carthage, Sardinian mint, ca. 264–241 BCE, 15.07 g. (www.wildwinds.com/coins/greece/zeugitana/carthage/SNGCop_197.1.jpg), March 2018

Jenkins & Lewis (1963: 11) speak of "the head of a goddess", "generally referred to as 'the head of Tanit'", as "the normal obverse of Carthaginian coins".[71] This uniformity of the motifs on the Carthaginian coins is emphasized by Huss, who at the same time asks for caution concerning the interpretation of the face:

> Die Münzbilder […] leiden an einer gewissen Einförmigkeit: in verschiedenen Variationen werden ausschließlich die Themen Kopf einer Göttin, Pferd und Palme durchgespielt. Die Deutung dieser Abbildungen ist großenteils nach wie vor umstritten. Der Kopf der Göttin stellte sicherlich ursprünglich eine Imitation des Kopfs der syrakosischen Arethusa dar. Nahmen aber die Karthager eine interpretatio Punica der Arethusa vor und sahen im Kopf der Göttin ihrer Münzen den Kopf einer punischen Göttin – etwa der Tnt? Eine derartige Annahme ist zwar verführerisch, aber nicht gesichert. (Huss 1985: 490)
>
> ['The coin design suffers from a certain uniformity: In a variety of combinations only the themes 'head of a goddess', 'horse', and 'palm tree' are played through. The interpretation of these pictures is still for the greater part a matter of controversy. The head of the goddess surely was originally an imitation of the Arethusa of Syracuse. But did the Carthaginians undertake an interpretatio Punica of Arethusa, considering the head of the goddess of their coins the head of a Punic goddess – perhaps of Tnt [Tnt, Tanit]? Such an assumption is seductive, but not secure.'][72]

This Carthaginian coinage with a nearly exclusive presentation of a female face, the face of a goddess assumed to be Tanit, on the obverse is a specialty in the Phoenician world. E.g., the Syracusans were much less concentrated on a single motif, or group of motifs. It may be worth noting, however, that just at the time when Carthage began issuing her own coinage Syracuse issued coins showing a face, albeit that of Athena, and a horse, albeit that of Pegasus; cf. Figure 8.

Thus, the Syracusan coinage may have been an inspiration for the Carthaginians, but the effigies and the style of their coins were certainly not modeled on them but were special and unique to their own mintage. As a matter of fact, their Tanit/horse combination was prevalent not only in the area of Carthage herself (as in Figure 6 in the preceding section, and Figure 9) but also in her European colonies (cf. Figure 4 above), including the Sicilian ones (cf. Figure 10).

---

71. Cf. Vennemann (2006a: 277, n 16) for details.

72. Cf. also Acquaro (1988) on Phoenician and especially Carthaginian coins. A very fine list of photographs with identifications may be viewed on the Internet page "Carthaginian Empire Coins", www.magnagraecia.nl/coins/Punic_map/Zeugitana_map/Zeugitana.html (13 February 2016). A long list of depicted Carthaginian coins can also be viewed on the Internet site "Wildwinds: Browsing Ancient Coinage of Carthage, Zeugitana", www.wildwinds.com/coins/greece/zeugitana/carthage/t.html (13 February 2016).

Figure 8. Sicily. Syracuse AR Stater. Time of Timoleon & Third Democracy, 344–317 BC. Pegasus flying left / ΣΥΡΑΚΟΣΙΩΝ, head of Athena right in Corinthian helmet. (Wildwinds: Ancient Coinage of Sicily, Syracuse, Timoleon, www.wildwinds.com/coins/greece/sicily/syracuse/timoleon/i.html (15 February 2016)

Figure 9. Carthage, Zeugitana. Time of the First Punic War. Circa 264–241 BC. AE 29 mm. Sardinian mint. Wreathed head of Tanit left, in triple-pendant earring & necklace / Horsehead right; caduceus before. (www.wildwinds.com/coins/greece/zeugitana/carthage/SNGCop_197.1.jpg. Cf. the Internet site "Carthaginian Empire Coins")

Figure 10. Siculo-Punic (c. 320 BCE), Silver tetradrachm, 17.15g. Head of Tanit-Persephone facing to left, wearing a wreath of barley, a triple pendant earring and a necklace. Reverse: horse rearing to right, a palm-tree in the background (Jenkins 1977: 126 (O42/R114)). (From Markowitz n.d.)

The combination of 'face of Tanit' and 'horse's head' in Figure 9 is especially interesting in our context because the very same combination, Tanit on the obverse and a horse's head on the reverse, occurs on the Carthaginian coin discovered in Saltford (Somerset, England) in 2012, cf. Figure 11. It is described as follows: Date: 300–264 BCE; Weight: 4.6 g; Diameter: 20 mm; Discovery date: 15 November 2012; Primary material: Copper; Mint or issue place: Punic-Sardinia; Obverse description: Head of Tanit left; Reverse description: Horse head right; unclear Punic letter to right; Die axis measurement: 6 o'clock; Degree of wear: Worn: fine (cf. "Portable Antiquities Scheme: Coin", https://finds.org.uk/database/artefacts/record/id/534879, 14 February 2016). In Figure 12, the Saltford coin is shown together with a latter-day British penny, the obverse, cf. the face in both cases – little change in more than two thousand years. In any event, a Carthaginian coin would be aptly named 'the face thing', 'the object with a face', at least in the jargon of traders.

Figure 11. Carthaginian coin discovered in Saltford (Somerset, England) in 2012 (Cf. the Internet site "The Saltford Carthaginian coin (300–264 B.C.E.)", www.saltfordenvironmentgroup.org.uk/history/history002.html, 6 February 2016)

Figure 12. The Saltford coin (obverse) and a latterday British penny (obverse). From the Internet film "The Saltford Carthaginian Coin – BBC Points West launch 13th April 2015", www.saltfordenvironmentgroup.org.uk/history/history008.html#BBC-carthaginian-coin-launch, 14 February 2016)

That the word for the face – also that for the head – has a special relation to coins is also evident in English, where the expressions *face value* and *head or tail* are among the evidence. That this special relation may spawn a special expression in the jargon of groups especially concerned with money is likewise nicely shown by English. The OED[3] (s.v. face, II.10.b) defines and illustrates one meaning of the noun *face* with citations as the following:

> Either side of a coin or medal, *esp.* the side bearing the effigy. Formerly also (*slang*): †a coin (*obs.*).
>
> 1598 Shakespeare Love's Labour's Lost v. ii. 606 The face of an olde Roman coyne.
> 1699 B. E. New Dict. Canting Crew *Nare-a-face-but-his-own*, not a Penny in his Pocket.
> 1762 Gentleman's Mag. Jan. 23/1 The face [of a coin] should have a resembling bust of his majesty.
> 1812 Edinb. Ann. Reg. 14 June 96/1 A silver coin of the Emperor Gordianus. On the face is a head of the emperor, with a radiated crown.

Thus, in earlier English slang, *face* could be used with the meaning 'coin'. The 1699 entry (E. 1899: s.v.); also "Ne'er-*a-Face-but-his-own*, Not a Penny in his Pocket" (Anonymous 1725: s.v.) is especially telling: *never a face but his own* apparently used to mean 'no money'; in the gloss *penny* literally translates *face*.

The Hebrew/Phoenician word for 'face' is $^{+}$*panæh* [p^{h}aˑne, p^{h}əˑne], plur. *panīm* (Krahmalkov 2000: s.vv. PNBʿL, PNM; Brown et al. 1979: s.v. [*panæh*]). In Biblical Hebrew it is a *plurale tantum*; the Modern Hebrew singular *pan* 'face' (Baltsan 1992: s.v.) is a back-formation on the plural *panīm* 'face' (Klein 1987: s.v. pan). Klein gives the meaning 'form, kind' for the singular *pan*. He tentatively suggests that the singular is borrowed Arabic *fann* 'kind, specimen, variety, side'. Klein too says that the sing. of *panīm* could only be *panæh*, cp. e.g. *ʿalæh* 'leaf', pl. *ʿalīm*, and *ḳanæh* 'cane', pl. *ḳanīm*. In Phoenician the singular occurs in Tanit's by-name *pn Bʿl*, reconstructible as $^{+}$*panē Baʿal*, $^{+}$*panē Bāl* 'face of Baal' because, by a stroke of good luck, the name is attested in Greek letters as *παvε βαλ* and as *πενη βαλ* (Donner & Röllig 1973: 96, 164).[73] The spelling variation *παvε* / *πενη* is considered by Donner & Röllig (1973: 96) as the result of vowel reduction: "In der ersten Silbe befand sich ein *a* (vgl. auch vulgärpun. *pʿn*' …) oder Murmelvokal (griech. *ε*)." [The first syllable contained an *a* (cf. also Vulgar Punic *pʿn*' …) or a reduced vowel / schwa (Greek *ε*).] Segert (1976: § 36.22) too writes, "A rendering of the same word with the different vowel letters, *e* and *a*, may point to a reduced vowel: ΠΑΝΕ […] and ΠΕΝΗ 'face' (cf. H[ebrew] *pənē*)." Thus, the Punic pronunciation of the word $^{+}$*panæh* probably varied between basic [p^{h}aˑne] and colloquial [p^{h}əˑne].

There are thus three facts to consider: (1) The face of almost all Punic coins showed a face, a $^{+}$*panæh*; (2) this face as a rule was one and the same on nearly all coins, namely that of a goddess, probably Tanit, so that the face of almost all coins, hence almost all coins, were mentally identified with this face; (3) by a peculiar

---

73. The origin of this byname is unclear (Cancik & Schneider 2002: 12, s.v. Tinnit). Lipiński (in Lipiński [ed.] 1992: s.v. *Tanit*) tentatively relates the name of Tanit to the verb *tny* 'to lament', so that *Tnt pn Bʿl* would be 'Pleureuse en face de Baal', comparable to the iconographic tradition of Venus lugens. See also Vennemann (2006b) for knowledge of Tanit in the North.

coincidence, the face on the face of nearly all coins was that of a goddess named *Face*, namely *Face-of-Baʿal*, ⁺*panē Bāl*. It seems plausible that in the Punic world, at least in the jargon of the Punic traders, a coin would naturally be 'the ⁺*panē* thing', 'the object with a ⁺*panē*', or simply a ⁺*panē*. Adapted into the Germanic lexicon this would yield ⁺*pan-ing* by adding the suffix *-ing* to what would be considered by speakers of Germanic the root of the Phoenician word, *pan-*. This is precisely the form needed for the most troublesome variant, ⁺*paning*, of the West Germanic etymon. Whether pronounced [pʰaˈne] or [pʰəˈne] by the Phoenicians, the word would be perceived by speakers of Germanic as based on a root ⁺*pan-* and receive the accent by the Germanic rule of word-initial accentuation; an integration with an initial cluster *pn-* would have violated the phonotactics of the West Germanic languages: The only word-initial *Cn-* clusters allowed in early Germanic were those where *C* was one of the fricatives *f*, *s*, *χ* (*h*) or one of the velar plosives *g*, *k*.

However, this adaptation, the "morphological" solution, though plausible, was not the only one possible. As a matter of fact, an alternative approach was equally or even more likely, the "phonological" one. A speaker of Germanic had to perceive the assumed Punic etymon ⁺*pane* as a bimoric base, [ˈpa.ne]. Addition of the suffix *-ing*, ⁺*pane-ing*, would necessarily delete the final vowel of this base. But there was an easy way to save its bimoricness: geminating the final consonant or epenthesizing a homorganic plosive. This would yield the alternative Germanic etyma, ⁺*panning* and ⁺*panding*, i.e. ⁺[ˈ**pan**.niŋg] and ⁺[ˈ**pan**.diŋg], both with a heavy base, competing with the light-base variant ⁺*paning*, i.e. ⁺[ˈ**pa**.niŋg]. The latter strategy for saving the phonological weight of the Punic etymon in Germanic is the same as in Pun. ⁺[səˈḳel] → PGmc. ⁺[ˈskel.liŋ.gaz, ˈskel.diŋ.gaz], cf. the preceding section.

10. PGmc. ⁺*smītan* 'to smite', ⁺*smiþaz* 'smith'[74]

A strong verb ⁺*smītan* (class I) is well attested in Gothic and West Germanic. See Seebold (1970: s.v. (-)SMEIT-A- 'schmeißen') for the actually attested forms. According to the OED[2] (s.v. *smite* st.V.), the Scandinavian forms Swed. *smita* (*smeta*), Norw. *smita*, Dan. *smide* are probably loanwords from Middle Low German. Several meanings seem to be attached to the verb: Goth. *bi-smeitan* (only 3rd sg. ind. pret. *bismait*) 'to anoint' and *ga-smeitan* (only 3rd sg. ind. pret. *gasmait*) translate Gk. *ἐπιχρίειν* 'to anoint, to besmear' (Lehmann 1986: s.v. *bi-smeitan). Since these are derived verbs, the meaning is likely to be a derived one too, and therefore Gothic does not tell us the meaning of the basic verb.

74. This section is based on Vennemann (2004a).

Fortunately, the simplex is also attested. Seebold (1970: s.v. [-]SMEIT-A-) gives 'schmeißen, werfen' ('to fling, to throw') as the meaning of OFris. *smīta*; this is also the meaning of G *schmeißen*. OE *smītan* is glossed 'to daub, smear, soil, pollute, defile' by Clark Hall & Meritt (1960: s.v.). This is indeed the meaning in the oldest occurrences (ca. 725, 1000) listed in the OED[2]. But as early as ca. 1150 the simplex verb also occurs with that meaning which is the only one in the contemporary language: *þu ofsloge* vel *smite* (*Canterbury Ps.* iii. 8, cf. OED[2]: s.v. *smite* st.V.), i.e. 'you (thou) struck down or smote'. This is also the exclusive meaning of the derived verb *to forsmite*, first attested ca. 1205 ([OED] 1989: s.v.), namely 'to smite in pieces, to strike down'.

We will not reproduce the discussions on which of these meanings, 'to besmear', 'to throw', or 'to strike' (Kluge 2011; Seebold 1970; Walde & Hofmann 1982), is the original one. Our conclusion from studying them is that the original meaning was 'to hit with an object by either throwing or striking' and that other meanings result from secondary semantic developments (see also Kroonen 2013). A parallel can be seen in PGmc. ⁺*strīka-* which preserves its original meaning in English *to strike*, whereas in German *streichen* it has taken on the meaning of 'smearing'. G *streicheln* 'to stroke, fondle' too has moved away from the original basic meaning, as has E *to stroke*; however, the noun *Streich* 'blow, stroke' preserves the original meaning within German, as does the noun *stroke* in English.

PGmc. ⁺*smītan* has no clear Indo-European etymology (Mailhammer 2007a: 214; Kroonen 2013: 459; Pfeifer 1997). This is in part due to the fact that the original meaning of the word is under dispute. Only if the original meaning is assumed to be that of 'throwing' is there any possible Indo-European connection at all, namely with Lat. *mittere* 'to let go, send, throw, hurl' (cf. Kluge 2011; Seebold 1970; Walde & Hofmann 1982; but rejected by Ernout & Meillet 1985). We will return to this etymology further below.

For a word with the basic meaning 'to hit' with an object by either throwing or striking', the lack of an Indo-European etymology is not surprising. Semantically similar words such as ⁺*drepan* 'to hit' and the word by which it was replaced in English, *to hit*, likewise lack convincing Indo-European etymologies (for ⁺*drepan* cf. Mailhammer, Laker & Vennemann 2003; but see Kroonen 2013: 101). The same holds true for PGmc. ⁺*strīka-* (Kluge 2011; Seebold 1970; Kroonen 2013), also for PGmc. ⁺*streuka-* (idem), which Seebold considers a variant of ⁺*strīka-* (Seebold 1970; Kroonen 2013). West and North Gmc. ⁺*bauta-* 'to beat' (st.V., class VII) has no extra-Germanic connections (Kroonen 2013); de Vries (1977: s.v. *bauta*) compares words in Latin and Old Irish, but Italic and Celtic are neighbors of Germanic, and therefore the word has no secure Indo-European etymology (see also Mailhammer 2007a: 224). PGmc. ⁺*slaha-* 'to beat, slay, throw' does not fare much better (Seebold 1970; Mailhammer 2007a: 224; Kroonen 2013). Clear cases in this semantic class of

verbs ('to hit with an object by either throwing or striking'), e.g. E *to hit* itself, borrowed from superstratal Old Norse, show that such verbs can easily be borrowed, possibly because of their use in military jargon.[75]

Returning to PGmc. *⁺smīta-*, the assumption that it too is a superstratal loanword is therefore entirely reasonable, and all that needs to be done, within the frame of our theory, is find a phonologically and semantically suitable Semitic root. The closest match we have found is the pair *ṣ-m-d* / *ṣ-m-t* (considered variants of one and the same root by specialists), which occur with meanings ranging from 'to vanquish' to 'a weapon for throwing in order to destroy', the latter meaning in the name of B'l ṣmd, cf. Figure 13.

Figure 13. B'l ṣmd (Smiting Ba'al), "La Stèle du Baal au foudre" [stele of Baal of the thunderbolt] (found at Ras Shamra, ancient Ugarit), Louvre Museum, Paris; cf. the Internet site "Louvre", www.louvre.fr/oeuvre-notices/la-stele-du-baal-au-foudre (31 May 2016)

Smith (1994: 330, 338–340) discusses this root *ṣ-m-d*, which occurs several times in the Ugaritic Baal Cycle, and writes in particular:

---

75. ON *hitta* 'to hit' too may be a loanword; de Vries says "Etymologie fraglich" [of questionable etymology]. Danish was a superstrate in Mediaeval England, resulting from military conquests (cf. Lutz 2012a; Lutz 2012b).

> The word *ṣmd(m)* refers to a weapon of some sort. … The nature of the weapon is not clearly understood although attempts to resolve the difficulty have been made on the basis of a variety of etymologies. Albright (Albright 1941: 16 n. 24a; Caquot, Sznycer & Herner 1973: 136 b.o.) compared Arabic *ṣamada*, 'to strike' (Lane 1726–27).[76] Neuberg (1950: 164) suggests the root **ṣmt*, 'to destroy,' and assuming Neuberg's view, Garr explains the variation in the final consonant as a phonological shift involving voicing. […]
>
> A famous stele from Ugarit, sometimes called the 'Baal au foudre' [Baal of the Thunderbolt] stele and housed in the Louvre, depicts Baal wielding two weapons. The weapon in his right hand is sometimes characterized as a mace. … In his left hand Baal holds 'tree-lightning.'

Smith translates the root *ṣ-m-t* as 'vanquish'. However, since E *smite* and *vanquish* are similar in meaning, one may speculate that the meaning of Ugaritic *ṣ-m-t* is not very distant from that of PGmc. *+smītan*.[77] The thematic vowel in a root of the structure (no guttural as second or third consonant) and meaning (fientic, transitive) of Ugarit. *ṣ-m-t* is regularly *-i-*.[78] Cf. the following partial (singular) paradigm of the short form of the prefix conjugation (Tropper 2003: 453–455), which expresses the meaning perfective, viz. (a) "preterite" and (b) "jussive" (Tropper 2000: 431):

1st		*'-aṣmit*		
2nd	m.	*t-aṣmit*	f.	*t-aṣmit-ī*
3rd	m.	*y-aṣmit*	f.	*t-aṣmit*

The long form of the prefix conjugation, which expresses the meaning imperfective or "present tense" (Tropper 2000: 431), differs from the short form only by adding a *-u* to suffixless forms and *-n* after suffixed vowels (Tropper 2000: 457). Since early

---

76. Lane has stem I (the imperfect, or "present", stem in Arabic) for the meaning 'to strike' with *u*, *-(a)ṣmud-*. Lane also lists the verb having the imperfect with *a* and *i*, but there its meaning is closer to 'put'. In Modern Arabic the meaning 'to strike' seems to be lost. Among the several meanings associated with the root *ṣ-m-d*, that of 'handgemein werden, kämpfen (… mit j-m)' [to engage in a fight (with s.o.), to fight (against s.o.)] (cf. Wehr 1985: s.v. *ṣamada*) comes closest to the old meaning of 'to strike'.

77. John Ole Askedal (p.c.) points out that these two meanings are supported by exact parallels in North Germanic, e.g. Norwegian *slå* 'to strike' or 'to beat, vanquish'.

78. It is, in a not quite predictable fashion, sometimes *-u-*. In the environment of guttural consonants and with non-fientic meanings it is *-a-*. This systematic use of the thematic vowel was characteristic of the older Semitic languages (Tropper 2000: 453). The variation between *i* and *u* as thematic vowels could perhaps explain curious variants in Germanic, e.g. in PGmc. *+strīka-* and *+streuka-* (as mentioned above), roots *+strik* and *+struk*. If thematic *a* may be assumed for the *ṣ-m-d* root, this could explain *smat-* in E *to smatter* and in E *to smash*, Norw. dial. *smaska* (if < *+smat-sk-a-*), both of which have no etymology (cf. OED: s.vv.).

Germanic did not have paradigmatic prefixes of this sort, the *'a-*, *ta-*, *ya-* etc. at the beginning of such verb forms were likely to be misinterpreted by the Germanic speakers, possibly as some sort of pronouns, leaving *ṣmit-* as what appeared to be the verbal root. One way of integrating this abstracted root form into the early Germanic verb system was treating it as a class I root. The same would hold true for the root or root variant *ṣ-m-d-* to be treated directly (but see n 81 and 82).

In Hebrew, and thus in Phoenician, the *hif'il* conjugation also has a present/future paradigm with a prefix and suffixes around a constant root vocalized *CCiC*.

As for Phoenician, Krahmalkov (2000) has an entry *ṢMD* 'mace, club' used as an epithet of Ba'al in the expression *ba'al ṣmd* 'Baal of the Mace'. He writes, "Reference is to the mace made for Baal by the god Kūsōr (Kôthar) with which he smashes his enemies." Krahmalkov compares the root to Ugaritic *ṣ-m-d*.

As we said earlier on in the present section, the only Indo-European connection for PGmc. $^{+}$*smītan* repeatedly offered in the etymological dictionaries (and only under the assumption that the basic sense is that of 'throwing') is with Lat. *mittere* 'to let go, send, throw, hurl',[79] which shows an initial *s-* after the prefix *co(n)-* in *cosmittere* (cf. Walde & Hofmann 1982: s.v. *mittō*, with references), which is normally *committere* 'to put together, unite, join'. Various reconstructions of the Latin root have been offered, according to assumed connections made within Indo-European and further developments within prehistoric Latin, none of them conclusive: **smeid-*, **smeit-*, **smid-*, **smit-*. We propose that Latin *mittere* has the same Semitic source as PGmc. $^{+}$*smītan*: a word based on one of the root variants *ṣmd/ṣmt*, namely the stem with the thematic vowel *i*: *-(a)ṣmid-/-(a)ṣmit-*.

Turning now to PGmc. $^{+}$*smiþaz* 'smith' and $^{+}$*smiþōn* 'to forge, smithy', it is evident that they share phonological and semantic properties with PGmc. $^{+}$*smītan* 'to strike'.[80] Yet they cannot be etymologically connected within Indo-European-based Germanic lexicology because of the difference in the final root consonants: There is no Germanic sound law that connects PGmc. $^{+}$*t* and $^{+}$*þ*, or Pre-Gmc. $^{+}$*d* and $^{+}$*t*. And indeed the etymological dictionaries we have consulted for this purpose do

---

79. Originally also 'setzen, stellen, legen' [to put], cf. Walde & Hofmann (1982: s.v. *mittō*). Note the meaning 'to put' for Arab. *-(a)ṣmid-*, note 81 above. The meaning of throwing of the Latin verb is evident in the derived adjective *mīssilis*, *-e* 'throwable, missile'.

80. This is expressed very succinctly in one of the meanings (21b) identified in the OED^2 for the verb *to smite*: 'To strike *with* a hammer in doing smith-work; now *spec.* to strike with the sledge.' The citations show this very well: *A smyth of metal smytynge with an hamer* (a. 1388); *The husband used to smite for Jimmy More the blacksmith* (a. 1881); *The smith* hammers*, the assistant* smites (a. 1888). Note also *Cursor Mundi* 23238 (cf. OED: s.v. *smith*):

> Als it war dintes on a steþi
> þat smythes smittes in a smeþey.

not connect the two roots. Thus, if the two roots are to be connected etymologically this can only be done under the assumption that all of these words are members of a loan complex, for which such variation would not be unusual. In the case at hand, it so happens that exactly the same variation already occurs in the donor language, if we assume that words based on the Central Semitic root variants *ṣmd* and *ṣmt* found their way into Pre-Germanic as superstratal loans.

Neither +*smiþaz* 'smith' nor +*smiþōn* 'to forge, smithy' (usually seen as derived from the noun) have an Indo-European etymology (Kluge 2011 s.v. Schmied; Kroonen 2013; Pfeifer 1997).

Both Kluge (2011 s.v. *Schmied*) and Kroonen (2013) assume an original more general meaning of the word, such as 'artist, artisan, craftsman, skilled worker, in metal, wood, or other material'. Today the smith is, both in English and German, the metal smith, and we consider it likely that this was the original meaning and the motivation for the borrowing: A new type of profession as copper and then bronze workers became ever more important, especially for the manufacture of weapons.[81] The fact that in Gothic only *aizasmiþa* 'coppersmith' (in 2 Tim. 4.14, with *aiz* neut., the only inherited term for 'metal' and the *n*-stem +*smiþōn* 'smith' substituting for the *a*-stem +*smiþ-a-z* in composition; cf. Lehmann 1986: s.v. *aizasmiþa*) is attested is not adverse to the idea: The Greek term to be translated (in 2 Tim. 4.14) was *χαλκεύς*, and since Greek *χαλκός* is translated (in Mk. 6.8) by Goth. *aiz* it seems natural that Wulfila specified Goth. +*smiþs* (the simplex is unattested) for this term. Since the word *smith* occurs frequently as a second element in combinations, such as *black-*, *copper-*, *gold-*, *gun-*, *iron-*, *lock-*, *silver-*, *tin-*, *whitesmith* (cf. OED^2: s.v. *smith*), it is understandable that the meaning of *smith* by itself could obtain more general meanings. In English the history of the word is in harmony with our proposal, because the earliest attestation (in *Beowulf* v. 1452) is *wǣpna smið* 'smith of weapons' (OED^2: s.v. *smith*).

The antiquity of the Germanic *smith* word is underlined by the existence of a related ablauting feminine noun, PGmc. +*smīþō*. This word is reflected in ON *smíð* and in OHG *smīda*. The Old Norse word means 'kunstfertige Arbeit' [skilled work], its Old Swedish reflex *smidhe*, 'smith's work' (de Vries 1977: s.v.). The Old High German word, however, means 'metal (to be worked on), jewelry'. The derived collective neuter noun OHG *gismīdi* means 'metal, metal tool(s), jewelry'; MHG *gesmīde* refers to any kind of smith's work, such as metal tools, weapons, armor, and NHG *Geschmeide* means '(set of) trinkets, jewels, (valuable piece of) jewelry' (Kluge 2011: s.v. *Geschmeide*, Pfeifer et al. 1997: s.v. *Geschmeide*). Therefore, since

81. That a word for the weapon-smith may be borrowed from a superstratum is shown by English *armourer*, borrowed like its base *armour* from Old French (first attested ca. 1400 and a. 1297, respectively, cf. OED: s.vv.).

in Old High German *smīda* seems to be what a *smid* works on or creates by his work, and since the basic meaning of *smīda* is 'metal', and the word is attested with this meaning very early (ca. 800 CE), we consider OHG *smīda* further support for our view that the original meaning of PGmc. *⁺smiþaz* is 'metal smith', exactly as in Contemporary English and German.

Heidermanns (1993: s.v. *smaiti* [i.e. PGmc. *⁺smaiti*]) has an entry for an adjective which is only attested in Old English, *smæte* 'pure, refined (of gold)',[82] and which he relates to the strong verb **smeita-*, i.e. PGmc. *⁺smītan*, even though "die Bedeutungsentwicklung ist schwer zu verfolgen" [the semantic development is hard to trace]. He compares ON *smeittr* 'enameled, inlaid, enchased in metal', *gullsmeittr* 'enameled in or with gold'. ON *smeittr* is likewise compared to OE *smæte* and further to the reflexes of the Proto-Germanic strong verb *⁺smītan* by de Vries (1977: s.v.). While we agree that the semantic relationship is difficult, it is interesting to note that a connection is made by these etymologists between the verb PGmc. *⁺smītan* and a term relating to the activity of the *⁺smiþaz*, in his specialization as goldsmith.

The etymological connection of PGmc. *⁺smītan* 'to strike' and *⁺smiþaz* 'smith' with the Semitic roots *ṣmd* 'to strike, weapon for striking or throwing' and *ṣmt* 'vanquish' is not perfect. In the present section we will point out a number of problems.

First, whereas Semit. *ṣmd* and *ṣmt* may be variants of one and the same root, and the same may be true of PGmc. *⁺smit-* (of *⁺smītan*) and *⁺smiþ-* (of *⁺smiþaz*), there is no exact alignment between the final root consonants in the Semitic and Germanic words. Thus, while e.g. Arabic *ṣmd* 'to strike' and PGmc. *⁺smit-* 'to strike, throw' line up well, Ugarit. *ṣmt* 'to vanquish', if it is to be connected with PGmc. *⁺smit-* 'to strike, throw', shows the "wrong" consonant degree. Perhaps this partial flaw is not very damaging, considering the fact that the confusion already seems to have existed in Semitic itself.

Second, whereas the meaning of smithing is close to, and may well derive from, that of smiting or striking, it is nevertheless a fact that the attested Semitic languages have several words for 'smith' but none derived from *ṣmd* or *ṣmt*. To ascribe such a word to the languages responsible for the Semitic loan material in Proto-Germanic is thus hypothetical. This difficulty disappears if we follow the etymological dictionaries and dissociate the *smith* word from the *smite* word.

Third, assuming a Semitic verbal root *ṣmd* as the source etymon of PGmc. *⁺smit-* makes it difficult to connect either *⁺smītan* 'to strike, throw' or *⁺smiþaz* 'smith' with PGmc. *⁺maitan* st.V. class VII 'to cut, hew' (Goth. 3rd plur. red. pret.

82. Cf. the entry *smeat* 'of gold: refined, pure' in the OED², attested between ca. 725 and a. 1225. The word is there characterized as "of obscure origin".

maimaitun, Mk. 11.8) as a mobile-*s* variant.[83] Since such a connection is not considered by Kluge (2011: s.v. *Schmied*) and is explicitly rejected by Lehmann (1986: s.v. *maitan*), this may not be a shortcoming of our proposal. Lehmann's verdict is "etymology doubtful" for PGmc. $^{+}$*maitan*, Goth. *maitan* and "Definite relationships elsewhere not discovered" for $^{+}$*smītan* in Goth. *bi-smeitan*, while for $^{+}$*smiþ-* in Goth. *aiza-smiþa* Lehmann accepts the traditional connection with Greek *smîlē* fem. 'carving knife' and the like and thus an Indo-European etymology.

Fourth, whereas in our etymologies of PGmc. $^{+}$*erþō* 'earth' and $^{+}$*aþal-* 'nobility' above we have assumed a sound substitution of Pre-Gmc. $^{+}t^{h}$ or PGmc. $^{+}þ$ for Northwest Semitic *ṣ* (Northwest Semitic roots *ʾrṣ*, *ʾṣl*), in the present section we have assumed a sound substitution of Gmc. $^{+}$*s* for the same consonant. This, however, may not be problematical at all: In the earlier etymologies the substitution was prevocalic, a position where Pre-Gmc. $^{+}t^{h}$ and PGmc. $^{+}þ$ were allowed; by contrast, in the present etymologies the substitution was word-initially before the consonant $^{+}$*m*, a position where only Gmc. $^{+}$*s* was allowed but not Pre-Gmc. $^{+}t^{h}$ or PGmc. $^{+}þ$ (or any other consonant, for that matter).

11. Phoenician loanwords "from everyday life"

As said earlier on, it is our goal in this chapter to demonstrate the superstratal nature of the Phoenician influence on early Germanic. We trust that the words treated so far do show this particular character of the contact assumed: The words treated so far come from the chief superstratal domains: the military, society, and advanced culture (see Chapter 8 for the domain of religion). Experience shows, however, that owing to the prestige that in general distinguishes superstrates in the perspective of the substrate speakers, usually a number of words from all spheres of everyday life are likewise borrowed into the substrate language (shown both as a general rule and for Germanic in particular in Vennemann 1984). We have so far not studied this area in any detail but will merely refer to two published instances of this sort of borrowing, both from the animal realm.

83. More precisely, such a connection is impossible with the root of PGmc. $^{+}$*maitan* as a base. It is only possible with the assumption of *s*-loss within Germanic. This is the proposal for PGmc. $^{+}$*smiþaz* (not $^{+}$*mītan*) and $^{+}$*maitan* in Southern (1999: 241): "*s*-loss likely".

11.1 PGmc. +*ebura-* 'male pig'[84]

The first etymology concerns the name of an animal which may have played a special role in society, as shown by the semantic development in Old Norse, and may therefore be a borderline case, the name of the male pig, PGmc. +*ebura-* m.: OHG *ebur*, OS *ebur-*, OE *eofur* 'male pig', ON *jǫfurr* 'prince'. This word has relatives only in the neighboring branches: Lat. *aper*, *-ī*, Umbr. *apruf* (< +*apruθ* < +*apruns*, acc. plur.) 'boar', Latv. *vepris*, OCS *veprĭ* m. This limited occurrence plus the phonological inexactness of the correspondences make the entire group suspect of being borrowed from a non-Indo-European language. If the old comparison with the Semitic root *'-p-r* 'boar' (Arab. *'ifr* 'boar, piglet') is correct (as in Brunner 1969: no. 34; Vennemann 1995: §7.5; Vennemann 2006b: §3.1.4; Simms 2002), this would be an early borrowing, because PGmc. +*ebura-* shows the application of Verner's Law, +*p* > +*b*. The root *'-p-r* is not attested for Phoenician[85] but it does occur in a Hebrew animal name, not with the meaning 'boar' but as *'opær* m. 'young hart, stag', Mod. Hebr. 'young of animal'.

Shifts of meaning are quite common among animal names; a well-known example is PIE +*kápros* 'he-goat, buck; probably more generally: male animal': Greek *κάπρος* 'boar'; Lat. *caper* 'he-goat, buck', *capreolus* 'roebuck'; ON *hafr* 'male goat', OE *hæfer* 'he-goat', also 'crab, shrimp'; Old Irish *gabor* (with irregular onset) m. 'buck', f. 'goat, mare' (Pokorny 1989: I. s.v.). Perhaps then the semantic development in Hebrew – away from 'boar' and toward 'stag' – is no more out of the ordinary than the side-by-side of Greek *κάπρος* 'boar' and Lat. *caper* 'billy-goat', *capreolus* 'roebuck'. Assuming that Phoenician preserved a *'-p-r* word with a meaning as in Arab. *'ifr* 'boar, piglet', borrowing into pre-Germanic and further into the other languages of the old Northwest might have generated the set of inexact correspondences listed above. – But this is admittedly not our best etymology, even though it is one of very few that has independently been proposed by other scholars.

11.2 PGmc. +*krabba-* m. 'crab, shrimp'[86]

PGmc. +*krabba-* 'crab, shrimp', when compared to Gr. *κάραβος* and Lat. *carabus*, shows an unshifted initial *k* and an unshifted medial *b*: OE *crabba*, ON *krabbi*; MLG

---

84. This section is based on Vennemann (2004b).

85. Krahmalkov (2000: s.v.) has a masculine noun 'PR 'dirt' and a feminine or plural noun 'PRT 'netherworld,, lit. the dust grave'. But this is a separate root, according to Brown et al. 1979: nos. 6083, not 6082).

86. This section is based on Vennemann (1995: §7.7; 2006b: §6.1.4).

krabbe, MDutch *crabbe*, Swedish *kräfta*, Dutch *krabbe*, *krab*, G *Krabbe* 'shrimp'; with +*t*-suffix MLG *krēvet,* MDutch *creeft,* Dutch *kreeft,* OHG *chrebiz, chrebazo,* MHG *kreb(e)z*, *kreb(e)ze*, G *Krebs* (whence French *écrevisse*, E *crayfish*). The OED[2] writes about *crab*, "In no way related to L[atin] *carabus,* Gr[eek] *κάραβος*" ([OED2] 1993), which is inevitable if *crab, carabus* and *κάραβος* are understood to be inherited Indo-European words. By contrast, Kluge (2011: s.v. *Krabbe*) writes about the German word: "Ursprünglich niederdeutsch; mndl. *crabbe*, ae. *crabba m.*, an. *krabbi m.* beruhen kaum auf einem Erbwort, sondern hängen wohl mit gr. *kárabos*, lt. *carabus* 'Meerkrebs' zusammen (die aus einer unbekannten Sprache stammen)." [Originally Low German; MDutch *crabbe*, OE *crabba* m., ON *krabbi* m. are hardly based on an inherited word but are probably connected to Greek *kárabos*, Lat. *carabus* 'saltwater crab' (which stem from an unknown language).] Thus, the word is there assumed to have been borrowed from an unknown, presumably non-Indo-European language. In Vennemann (1995: § 7.7) this language is identified as Semitic: PSemit. +*ʿaqrab* m. 'scorpion' (with prosthetic +*ʾa* Lipiński 2001:§ 29.11) , South Arabian *ʿaqráb*, Arab. *ʿaqrabun*; Aram. *ʿeqarḇa*, Hebr. *ʿaqrāḇ*.[87] Both PSemit. +*ʿaqrab* and PGmc. +*krabba-* are masculine nouns.

The word is not attested for Phoenician but may be assumed to have existed there on the evidence of Hebr. *ʿaqrāḇ*, namely as Phoenic. +*ʿaʾqrab*. Apheretically deleting the unstressed syllable in the borrowing process made the word abide by the Germanic root monosyllabicity. Geminating the final *-b* before the suffixal vowel kept the root heavy, as in the Semitic model. The unshifted *(-)q-* and *-b-* show that the word was borrowed after the operation of Grimm's Law.

The semantic match between PGmc. +*krabba-* m. 'crab, shrimp' and PSemit. +*ʿaqrab* m. 'scorpion' is not perfect: A crab is not a scorpion. But to a Carthaginian away from home, crabs and shrimps may have been sufficiently similar to a scorpion to call them by this name (see e.g. Anger 1998). Greeks, Romans, and Germanic people would adopt the Punic word with the shifted meaning. In the North this was especially likely to happen: Scorpions did not live north of Switzerland and Austria, hence not in the Germanic homeland.

87. Cohen (1926: 101) noticed this striking similarity but did not offer an explanation. – Möller (1911: 222) saw Greek *σκορπίος* 'skorpion', "mit *s*-Präformativ", as belonging here, too. Vennemann (1995: §7.7) added Lat. *scarabaeus* 'beetle of the genus *Scarabæus*', likewise with mobile *s*, to the list, "dessen Referent vielleicht nicht zufällig in Nordafrika zu Hause ist" ['whose referent may not merely *happen* to be indigenous to North Africa'].

12. Possible covert Punic influences in Proto-Germanic

There is one important area of language contact whose investigation with regard to Punic and Germanic has barely begun. Languages are known to influence each other's lexicons not only overtly by adding or ousting expressions but also covertly by prompting loan translations, semantic borrowing (loan meanings), and changes of categorial properties, also sometimes by changing use conditions or use frequencies. These influences are much harder to identify than straightforward borrowing, especially for prehistoric conditions. Borrowing enters foreign words together with the foreign concepts they mean, and is therefore usually easy to spot by the foreign substance introduced, at least during an initial phase. By contrast, the covert processes just mentioned work entirely with or on the native substance of the target language and cannot be discovered by merely inspecting the target language but only by comparing source and target language in a diachronic perspective.

For example, E *sin* (OE *syn(n)*), OFris. *sinne*, OS *sundia*, OHG *sunta*, G *Sünde* derive from a Proto-Germanic word +*sundjō* f. 'misdeed', i.e. 'violation of the law, especially moral law'; the modern meaning of 'violation of Christian law' developed under the influence of Lat. *peccatum* 'sin' in mediaeval Christian religious discourse. G *Unabhängigkeit* 'independence' looks like a totally German derivate: *häng-* 'to hang'; *ab-häng-* 'to hang down', i.e. 'to de-pend'; *abhäng-ig* 'depend-ent'; *un-abhängig* 'in-dependent'; *Unabhängig-keit* 'independenc-e'; but as the English translation already suggests, it is a morpheme-by-morpheme translation of Lat. *independentia*:

(in ((de (pend)) ent)) ia
| | | | | |
(Un ((ab (häng)) ig)) keit

G *(jemandem) den Hof machen* 'to court, to woo (somebody)' is a word-by-word loan translation of French *faire la court* (*à quelqu'un*) (lit. "to make the court (to somebody)") with the same meaning. – The following two subsections contain two examples which we suspect of reflecting such covert contact influence.

12.1 Gender of PGmc. +*sunnōn* f. 'sun' and +*mēnōn* m. 'moon'

In the classical Indo-European languages, the words for the sun and the moon are masculine and feminine, respectively: Gk. *ἥλιος* m. 'sun', Lat. *sōl* m. 'sun'; Gk. *σελήνη* f. 'moon', Lat. *lūna* f. 'moon'.

The Germanic words for the sun, PGmc. +*sunnōn*, and the moon, PGmc. +*mēnōn*, are feminine and masculine, respectively: Goth. *sunno* f., ON OS OHG

sunna f., OE *sunne* f. An exception occurs in Old Saxon, which in addition to the feminine *sunna* uses a masculine *sunno*. Gothic preserves a second word for 'sun', *sauil* (< *+sōwila-*) which is neuter; but in Old Norse, even this word (or rather a closely related one), *sōl* (< *+sōwulā*), is feminine.[88]

The development of these nouns from their reconstructed Proto-Indo-European forms, including their categorial stabilization, is very complex, especially in the case of the 'sun' word which started out as a heteroclitic *l*/*n* stem, whereas on the 'moon' side even different concepts were verbalized, 'shining' in the cases of *σελήνη* and *lūna*, 'measuring' in the case of *+mēnōn*. Cf. Pokorny 1989; for the 'sun' words s.v. *sáu̯el-*, *sāu̯ol-*, *suu̯él-*, *su̯el-*, *sūl-* and *su̯en-*, *sun-* 'sun' (pp. 881–882.); for *σελήνη* s.v. 2. *su̯el-* 'schwelen, brennen' [to smoulder, to burn] (pp. 1045); for *lūna* s.v. *leuk-* / *louk-s-no-*, *-nā* 'Leuchte, Mond' [lamp, moon] (pp. 687–689); for *+mēnōn* s.v. *mēnōt* 'Monat' [month] and 'Mond' [moon] (pp. 731–732). And since these bases were subject to various word formation processes and lexical replacements, shifts of gender were probably inevitable. The cognates of the Germanic words for 'sun' and 'moon' across Indo-European often show the same gender as in Germanic (see e.g. Kroonen 2013). However, it remains a remarkable fact that the Greek and Latin words for 'sun' and 'moon' on one hand and the Germanic words for 'sun' and 'moon' on the other wound up with the "opposite" gender, so to speak, for both their 'sun' and their 'moon' words.

We are aware, of course, that things may come to pass accidentally, but we do find it worth mentioning that the distribution of gender that arose in Germanic is the same as in the language family whose westernmost member we have found responsible for quite a number of other linguistic and cultural developments that set Germanic apart from the other Indo-European languages: for the 'sun' and the 'moon' words we find *šæmæš* f. 'sun',[89] *yare^{a}ḥ* m. 'moon' in Hebrew (Brown et al. 1979: s.vv.), ŠMŠ f. 'sun', YRḤ m. 'moon' in Phoenician (Krahmalkov 2000: s.vv.).

12.2 Gmc. *norþ-* adj., adv., noun 'north, north wind'

It is a well-known fact that the words for the four points of the compass in several European languages were borrowed from Germanic. We will not here attempt an etymological analysis of the entire set of terms but will only look at a single one, following a suggestion in Pinhas (2014).

---

88. Cf. Orel (2003: s.vv. *sunnōn* sb.f. 'sun', *sōwelan ~ sowelō* sb.n./f.) and Pokorny (1989: *sáu̯el-* [etc.]). See also the next paragraph in the main text.

89. In Biblical Hebrew the noun is also used with masculine gender (Brown et al. 1979: s.v.); in Modern Hebrew *šemeš* 'sun' is feminine.

Gmc. *norþ-* is widely attested as an adjective, adverb, and noun in slightly different morphological forms in West and North Germanic: E *north*, OE *norþ*, MDutch *nort*, *noort*, Dutch *noord*, OFris. *north*; OHG *nordan*, MHG *norden*; ON *norðr*, Norw. Dan. *nord,* Swed. *norr*. It is compared in Kluge (2011: s.v. *Nord*); Pfeifer et al. (1997: s.v. *Nord*), and Frisk (1973: s.v. *ἔνερθε(ν)*) as a zero grade variant to Armen. *nerk'in* 'the lower one', Gk. *ἔνερθε(ν)*, *νέρθε(ν)* '(from) below', *ἔνεροι* 'the lower ones, the subterranean ones (gods, the dead)', *ἐνέρτερος*, *νέρτερος* 'lower, deeper, subterranean', *ἐνέρτατος* 'the lowest', Osc. *nertrak* 'from the left side', Umbr. *nertru* 'left (side)', Toch. B (without consonantal suffix) *ñor* 'under' (see also Kroonen 2013). The explanation for the two meanings 'left (side)' and 'below' attached to the Indo-European $^{+}$*ner-* root is the same in the etymological dictionaries. The following is Kluge's (2011) version:

> Die Sonne steht bei ihrem Höchststand im Mittag oder Süden; das Gegenstück ist entsprechend Mitternacht oder Norden. Im Süden ist sie 'oben', im Norden 'unten'. Entsprechend ist, wenn sich der Seefahrer oder der Opfernde dem Morgenlicht im Osten zuwendet, der Norden links. (Kluge 2011: s.v. *Nord*)
>
> [The sun reaches its highest position at noon or in the south; the corresponding counterpart is midnight or north. In the south the sun is 'up', in the north, 'down'. Likewise, when the seafarer or the sacrificer turns to the morning light in the east, north is on the left side.]

It is conceivable that the association of the north with the left side is a generally available, perhaps even universal pragmatic connection. In any event, Pinhas (2014) suggests that this association was carried into Germanic by bilingual speakers of Punic, for which he assumes it on the combined evidence of Hebr. *śimōl* 'north, northward', Aramaic *ś^{e}mālā*, Ugaritic *śm'al*, Akkadian *šumēlu* 'left side', Arab. *šimāl*, *šamāl* 'north, northward, left side'. In view of the fundamental assumption of our theory that the Carthaginians came to the north as seafarers, we find this etymological reconstruction rather plausible.

CHAPTER 5

Punic influence in the Germanic verb system
The strong verbs

1. The contact situation

This scenario developed in Chapter 3 makes specific predictions for the processes discussed in this chapter.

First of all, ethnic speakers of Punic would probably not have acquired Germanic in a process of second language acquisition on a large scale; it is more likely that this happened in a process of bilingual acquisition, as children of Punic-Germanic parents acquired Germanic as well as Punic. That is, if shift played a role it was a gradual shift, which is typically accompanied by a period of bilingualism and attrition. Known cases, as e.g. the situation of Punic in Northern Africa and in Carthage itself after the Roman conquest, suggest that Punic would have had quite a long afterlife and that speakers would have clung on to it as long as possible. Thus, any shift (Punic could have simply not been passed on at a certain point and become extinct) would have happened late and probably only few speakers would have shifted. Therefore, the main direction of acquisition – either as first or second language – was from speakers of Germanic to Punic, that is, we probably have to assume that a considerable number of ethnic Germanic people had at least a minimum of proficiency in Punic and would have made frequent use of it in their daily lives.

As already outlined, the situation is likely to have been highly heterogeneous in terms of dominance relationships comprising the entire spectrum from monolingual speakers of Punic in the colonial centres to monolingual speakers of pre-Proto-Germanic in the far hinterland, and several different types of bilinguals in between these two extremes. For the transfer itself it is thus preferable not to think primarily in terms of dominance relationships, but in terms of pattern replication (see Chapter 2). Given that this influence runs from Punic to Germanic, this establishes the former as source and the latter as recipient language, as the Punic patterns are copied into Germanic. However, in terms of van Coetsem's basic model, it is plausible that this is actually a case of recipient language agentivity, because no actual morphology is transferred. Rather the Punic system is used as a blueprint for the reorganization of pre-Proto-Germanic (restructurization). The

locus of transfer thus must have been in bilinguals who were dominant in Punic, but who continued to use Germanic (see Chapter 2 for a discussion of the term *dominance*). The innovations survived and spread then into the hinterland and into the less influenced varieties of Germanic. It is also likely that the innovations discussed in this chapter are just the remnants of a once far heavier Punic influence, which was rolled back after the Punic social dominance had gone. If our account is plausible, pre-Proto-Germanic was not changed by monolingual speakers of Punic in a situation of language shift, as assumed earlier (see e.g. Mailhammer 2006b), but probably mainly by Germanic people in a complex situation of bilingualism and koinéization. That such a contact situation can cause quite far-reaching structural changes in the recipient language, including in its morphology and categorical organization, is well documented in the literature (see Chapter 2).

2. Problematic Germanic features and Punic

In Chapter 1 we pointed out four developments in the Germanic strong verbs that have not been satisfactorily accounted for.

- Functionalization of ablaut
- Systematization of ablaut
- Uniformization of present stem formation
- Reduction of TAM categories

The results of these developments are the explananda we will account for in this chapter. First, the functionalization of ablaut caused ablaut to be a distinctive property of tense and mood stems in Germanic. As explained in Chapter 1, this is an innovation in Proto-Germanic – the ancestral language did not use ablaut in this way. This concerns especially the loss of reduplication in a very specific pattern. It is also unclear why a marginal and crosslinguistically highly marked morphological strategy should become the sole marker of the grammatical categories expressed on the verb stem. This does not happen in any other Indo-European language.

Second, the systematization of ablaut resulted in the organization of the strong verbs according to ablaut patterns which were in turn correlated with phonological root structure. Again, this is an innovation, the ancestor of Proto-Germanic did not have this feature. The pivotal phenomenon to be explained is the correlation between ablaut pattern and phonological root structure. This is not found in any other Indo-European language and is also crosslinguistically rare in its thoroughness.

Third, the uniformization of present tense stem formation had the effect that irrespective of their historical form, all present tense stems of almost all strong

verbs show only one of the 20 or so types of Indo-European present stem formation. It is unclear why it was necessary to completely remodel present tense stem formation according to one type of formation with partly far reaching changes in root structure.

Fourth, the reduction of the TAM categories causes Proto-Germanic to have a smaller inventory of tense and mood forms than its ancestor, and the architecture of the system is quite different in that the Proto-Germanic system is basically temporal as opposed to aspectual. The complete loss of the aorist in the strong verbs both as a category and in terms of formal traces is especially puzzling, but the past tense value of the inherited perfect is not trivial either. Punic has all four features just mentioned. We will discuss each in a separate section below.

2.1 Ablaut marks grammatical categories in Punic

As a Semitic language, Punic uses ablaut extensively to mark grammatical categories.[90] As outlined in Chapter 1, consonantal root skeletons contain slots that are filled with vowels whose combination is characteristic for grammatical categories. Usually, the first slot expresses the grammatical category, while the second slot signals the vocalization type. The vocalization type refers to the alternation pattern of the ablaut slot that is not characteristic for a given stem, that is the vowel of the second slot ($_{-2}$) in the triconsonantal root skeleton ($C_{1-1}C_{2-2}C_3$). In contrast to closely related Hebrew, Punic seems to have displayed far less variation in this slot. Most verbs would have had *o* in this slot, especially in the suffix conjugation, which is the most relevant for our puproses (see Friedrich & Röllig 1999: 79, 82; Kienast 2001: 250; Krahmalkov 2001: 154 for details).

In addition to the basic stem of the verb, which expresses the verb's basic meaning, a verb has four other stems expressing aktionsart or verbal diathesis (see e.g. Segert 1976: 125–127). These stems are traditionally labelled as they are in Hebrew (see Table 5). Each stem expresses seven different morphological categories. Three of these form fully inflected paradigms: the perfect, the imperfect and

90. This account is largely based on Krahmalkov (2001), Kienast (2001), and Friedrich & Röllig (1999). The names of the stems are generally taken from Krahmalkov; alternative names are from Friedrich & Röllig (1999). For the inflections Friedrich and Röllig as well as Kienast use the terms "imperfect" and "perfect", while Krahmalkov uses "prefix" and "suffix-conjugation". Kienast (2001: 313–315) notes a potential for terminological confusion and argues (p. 193) for a categorization based on actual forms, i.e. *qatala* for the Arabic "perfect"/"suffix-conjugation". We can see that there may be a potential for confusion across languages and chronological stages, but for a synchronic description of Punic we think this is unproblematic and use all three terms, "perfect", "suffix-conjugation" and *qatal*/*qatol* synonymously, and disambiguate if necessary.

the imperative, all of which inflect for person, number and gender, expressed by affixes, see Table 5.

Table 5. Architecture of the Punic verb system

Stem: aktionsart/ diathesis Form: TAM	**Qal**	***Ni'pal* (reflexive-passive)**	***Pi'el* (intensive, factitive)**	***Yip'il* (causative)**	***Yitpe'el* (reflexive, passive, reciprocal)**
Suffix conj. ("perfect")	perfective/ past (fut., juss.)	perfective/past (fut., juss.)	perfective/ past (fut., juss.)	perfective/ past (fut., juss.)	perfective/past (fut., juss.)
Prefix conj. ("imperfect")	present tense (future, mood)	present tense (future, mood)	present tense (future, mood)	present tense (future, mood)	present tense (future, mood)
imperative	imperative		imperative	imperative	
active part.	verbal/part.		verbal/part.	verbal/part.	
passive part.	past perf.				
construct inf.	various		various	various	
absolute inf.	various			various	

For our puproses the *Qal-* or basic stem is relevant, as it expresses a verb's general meaning. The best illustration of ablaut as category marker is the suffix conjugation, which will be instrumental in our proposal.

If we compare the mophological stems of *pa*ʿ*ol-Ø* 'he made' and *yi-pØ*ʿ*al* 'he shall make', corresponding to the root *p*ʿ*l* 'make' (Krahmalkov 2001: 163 and 81), then it becomes clear that the *a* vs. zero in the first ablaut slot (following *p*) is the characteristic marker. Reduplication is not used to mark the perfective aspect, and the suffix-conjugation stem does not have any other affixes (other than person-number-gender suffixes). In addition, the root in the perfective stem always has *a* in the first ablaut slot.

Table 6 compares the relevant morphological features of the Proto-Indo-European perfect, the Punic suffix conjugation (*Qal*-stem) and the Proto-Germanic preterit of classes I to V with respect to marking of the stem.[91]

91. The Proto-Indo-European perfect is used as proxy for a pre-Proto-Germanic preterit. We are aware of potential incongruencies, but this is the closest available equivalent.

Table 6. The morphology of the PIE perfect compared to that of the Punic perfect

Language	PIE perfect	Punic perfect (suffix conjugation *qatol*, *Qal*-stem)	PGmc. preterit cl. I-V (indicative sg stem)
Stem marked by	reduplication, ablaut (/o/), word stress	ablaut (/a/) (vocalization pattern)	ablaut (/a/)
Example	$^{+}$**g$^{\text{u}}$e**-g$^{\text{u}}$**ó**m-e (e.g. Ved. ***jagáma*** 'has come')	*yaton-* 'he gave'	$^{+}$*kwam-* (e.g. Goth. *qam* 'came')

Punic verbs also inflect for different grammatical categories, and they represent the subject as well as an object on the verb. These categories are expressed by affixes, similarly to Indo-European, which, however, do not mark the object on the verb (see Hackett 2008:96 for full sample paradigms of the *Qal* stem forms).

2.2 Inflectional classes depend on phonological root structure in Punic

As in other Semitic languages, inflectional morphology shows systematic variation depending on the phonetic properties of the root consonants. The canonical verb root in Punic consists of three consonants (traditionally called "radicals"), which form a template that is filled with vowels according to fixed patterns, and further modified by affixes and other morphological operations for inflectional or derivational purposes. Verbs of this type are traditionally called *strong* or *sound* verbs.

Variation of this canonical structure results in morphological variation that is often predictable from the application of regular phonological change. The most important type of variation is the group of so-called *weak* verbs, which includes the following main sub-types:

a. roots with one radical being a glottal (also labelled "laryngeal") or pharyngeal consonant;
b. roots with identical second and third consonant;
c. roots with initial consonant *n*;
d. roots with a glide as one radical;

In Punic these groups show inflectional deviances from the canonical strong verbs. For reasons of space and clarity we will not go into more detail here and refer the reader to the specialist literature. We present a comparative synopsis further below (Table 9). The key point is that the morphological variation these verbs show is linked to their phonological root structre. That is, in Punic the phonological structure of verb roots has a direct and systematically describable effect on inflectional patterns, especially on vocalization type and ablaut pattern. This becomes evident

in the relevant root-structure classes especially in the strong vs. the weak verbs (Segert 1976: 123; 2007: 83 explicitly uses the term "verbal classes").

2.3 Predictable present tense stem

The architecture of the Punic verb system is somewhat different, but the similarity with respect to the Germanic present tense stem is in the fact that the type of inflection that is used to express the functional range of the present tense is basically the prefix conjugation, also called "imperfect" in Northwest Semitic (Kienast 2001: 192). This conjugation has several subtypes in West-Semitic languages, commonly labelled with their Old Canaanite forms: *yaqtul* ("Kurzimperfekt" 'short imperfect', cf. Friedrich & Röllig 1999: 75; Kienast 2001: 194; "Prefixing Form B", cf. Krahmalkov 2001: 151), *yaqtul-u* ("Langimperfekt" 'long imperfect', cf. Friedrich & Röllig 1999; Kienast 2001: 194; "Prefixing Form A", cf. Krahmalkov 2001) and *yaqtul-a* ("Finalis", cf. Friedrich & Röllig 1999: 75; Kienast 2001: 194, "Prefixing Form C", cf. Krahmalkov 2001: 151). There appears to be some disagreement in the literature about which of these forms are attested in Punic and in what function.

For our purposes it is important to examine possible expressions of a present tense corresponding to the main function of the present tense in Proto-Indo-European and Proto-Germanic (consequently, we will exclude the "Finalis" form, *yaqtula*). The forms belonging to the "long imperfect" *yaqtulu* are generally said to be used to express the present tense in Northwest-Semitic and also in Phoenician-Punic (Friedrich & Röllig 1999: 190; Kienast 2001: 314; Krahmalkov 2001: 153).[92] However, opinions differ with respect to whether this function is actually attested in Phoenician-Punic: Friedrich & Röllig (1999: 190) say there is no unambiguous attestation ("kein eindeutiger Beleg") for *yaqtulu* describing an event in the present tense, and Harris (1936: 40) does not list the present tense as a function of the imperfect. However, Amadasi Guzzo & Röllig (1995: 190), Kienast (2001: 314) and Krahmalkov (2001: 183–184) dispute this and provide examples of present tense use that are said to reflect the "long imperfect" *yaqtulu*. On closer inspection, all adduced cases except one are ambiguous between the long and the short imperfect. This is because the difference between the two is theoretically only visible in the 2SG.F and the 2 and 3PL.M (Friedrich & Röllig 1999: 82; Krahmalkov 2001: 180), and it is not always discernible from the written attestations due to the consonantal writing system (Kienast 2001: 314). Only one example in Krahmalkov (2001: 183-184) has a clear "long imperfect" inflection

92. Hackett (2008: 95) even says that the long imperfect is "the only prefix-conjugation attested in Phoenician".

interpretable as 2PL.M, namely *timlacun* 'you (pl.) rule', whose spelling is secured through Roman spelling even though the Latin translation is not fully coherent (*colunt* literally does not mean 'rule (pl.)' and it is 3pl). Nevertheless, it appears that the imperfect, whether long or short, was capable of expressing present tense functions (see e.g. Segert 1976: 191; 2007: 81). This is also supported by evidence from other Northwest-Semitic languages, especially Hebrew (Amadasi Guzzo & Röllig 1995: 190). In addition to the imperfect, the perfect (suffix conjugation) can express the function of a perfective present tense (Krahmalkov 2001: 153), or, more precisely, a performative (Friedrich & Röllig 1999: 189).[93] This function appears to be attested (see examples in Friedrich & Röllig 1999: 189–190;, Krahmalkov 2001: 175), despite the assertion to the contrary in Kienast (2001: 314).

To sum up, the present tense function in Punic seems to have two main morphological realisations, the prefix conjugation (possibly *yaqtulu*, i.e. Punic *yiqtolu*, despite the ambiguities) for the more frequent imperfective contexts and the suffix conjugation (*qatal*, i.e. Punic *qatol*) for performative uses (perfective context). In terms of allomorphs, both forms have only one exponent represented structurally by *ya*-$C_1ØC_2VC_3$ and $C_1aC_2VC_3$ (see e.g. Bennett 1998: 102 for Hebrew). The stems of both forms are characterized by a consistent ablaut differentiation Ø: *a* in the first ablaut slot (see below for the second ablaut slot, the so-called thematic vowel, which was probably *o* everywhere, see e.g. Kienast 2001).

2.4 Temporal opposition in Punic

In terms of tense and aspect, Punic represents a mixed system in which the once fundamental aspectual contrast between a purely aspectual "perfect" and "imperfect" expressing perfectivity and imperfectivity irrespective of temporal contrast exists really only in present tense contexts.[94] Only there are both the suffix and the prefix conjugation used, and even there the use of the suffix conjugation is basically restricted to performatives (see above), which lies partly in the nature of the

93. The examples in Krahmalkov (2000: 175) are in fact all consistent with a performative interpretation; for verbs of cognition the stative meaning is a consequence of their stative aktionsart. The assumption of a separate function is unnecessary, as English *they bless*, *they run* and *they believe* show. Whether readings are dynamic or not depends on the aktionsart of the verb: *bless* and *run* are dynamic and agentive and *believe* is not, hence it receives a stative reading ("Finalis", cf. Friedrich & Röllig 1999: 75).

94. Punic differs in this respect from other Caananite/Northwest Semitic languages, e.g. Hebrew and Ugaritic, and perhaps even also from Phoenician, cf. Kienast (2001: 192).

interaction between tense and aspect.[95] In past tense contexts, however, the forms of the "imperfect" are practically not attested in Punic: the short form (*yaqtul*/Punic *yiqtol*) occurs only frozen in personal names (Friedrich & Röllig 1999: 190), and with *waw consecutivum* it appears also to have been used only rarely (Krahmalkov 2001: 189 has only one example); the main narrative form appears to have been the "perfect", and to some degree the absolute infinitive (Friedrich & Röllig 1999: 190–192, and Mailhammer 2006b: 31–33 for discussion of the data). The long form of the "imperfect" (*yaqtulu*) is not attested in past tense contexts in Punic. Friedrich & Röllig (1999: 190) have only one attestation for Old Phoenician and both examples in Krahmalkov (2001: 184) are not Punic (the second one is identical to the one given by Friedrich and Röllig). This may be a coincidence, but given that the short "imperfect" was replaced by the "perfect" in past tense contexts already in Phoenician, it is likely that there was no longer a morphologically realized aspectual differentiation in past tense contexts in Punic. In addition to expressing perfectivity in the present tense (performatives), the Punic "perfect" (suffix conjugation) can have the following main readings: resultative-stative, past tense, pluperfect, in addition to some more modal usages (future/conditional and optative), see also Segert (1976: 191–193).

Thus, it is a relatively typical case of a general perfective found in other languages with an aspectual system (see Mailhammer 2009: 376–378 for an overview). However, the "imperfect" (prefix conjugation) is essentially a present tense, which can also be used to express futurity, in addition to some modal uses (see Friedrich & Röllig 1999: 190–191; Krahmalkov 2001: 180–194; Segert 1976: 193; 2007: 81). The other forms belonging to each of the five stems are used to replace inflected forms (active and passive participle) or to convey a modal meaning (see the overview in Krahmalkov 2001: 153). In general, there is a multiple-to-one relation between functions/categories and formal realisations and vice versa.

To sum up, the reduced system of verbal categories in Proto-Germanic and its innovations – a multifunctional past tense and a fundamental categorical contrast built on tense – find counterparts in the verb system of Punic. In Proto-Germanic this is evident from the forms alone, whereas in Punic this is less obvious, but nevertheless clear enough: the "imperfect" is a present tense (the future use is compatible with that; see examples in Friedrich & Röllig 1999: 190, which are clearly not all imperfective, e.g. 'will cut off'), and the "perfect" is a perfective that is mainly used

95. Perfectivity is generally considered incompatible with present time reference/continuation or incompletion (situation time simultaneous with speech time in the classic terms of Reichenbach (1947); see e.g. Smith 1997: 64)), and therefore yields marked readings, especially performatives and reportative presents (see Mailhammer 2009 for an analoguous case in Amurdak, an Australian indigenous language).

in the past tense, given the restrictions on the usage of a perfective in the present tense. As mentioned, the functional range of the "perfect" in past tense contexts and its use as a perfect are identical in the Germanic preterit.

3. The transfer

3.1 Contact-induced change I: the innovations

This section examines the plausibility that the innovations in the Germanic strong verbs we elaborated on could have been innovated by a bilingual speaker of Punic and Pre-Proto-Germanic. Reconstructing contact between two languages in such a complex situation is a necessary methodological simplification (see Chapter 2 above for details). However, the nature of the changes requires that at least on the Punic side the variety in contact with Germanic was probably not far from the general Punic community standard, because the templatic morphology would have probably been lost in a pidgin variety (see e.g. Tosco 1995 for an Arabic-based pidgin). This, together with the fact that the types of innovations under consideration here make a relatively profound familiarity with Punic and Pre-Proto-Germanic necessary, narrows down the number of potential bilingual speakers. While it is conceivable that a new Germanic arrival in a Punic outpost could live there long enough and be socially successful enough to actually learn and be immersed in Punic to a degree that subsequently affects their native pre-Proto-Germanic language, it seems much more likely that a bilingual speaker who acquired both languages as a child or as part of their upbringing would be capable of these innovations (pattern replication). However, it is even more plausible that both happen at the same time. Each new arrival is exposed to various forms of Punic while continuing to use a variety (probably a koiné) of pre-Proto-Germanic. The effect is that the pre-Proto-Germanic koiné becomes slowly Punicized – indirectly, through second language learners and bilinguals who speak a form of Punic and the Germanic koiné. In the later stages shifting speakers of Punic would have been another possible source.

The changes we are considering are not of the same type and do not presuppose familiarity with the source language, Punic, to the same degree. The uniformization of the present tense stem may even have happened largely in the process of koinéization. For the identification of the Pre-Proto-Germanic perfect with the Punic suffix conjugation and associated changes at least some knowledge of Punic grammar is necessary, but in order to target ablaut and then utilize the principle of organization known from Punic, more intimate familiarity is necessary. We suggest therefore that the first change was the use of the Proto-Indo-European perfect as a past tense and the loss of the aorist. The uniformization of the present tense stem

could in principle have happened at the same time and could have been unrelated as specific contact with Punic is not necessarily required. The next step was the loss of reduplication and the resulting functionalization of ablaut, and the last phase was the utilization of the Semitic classification principle for verb roots based on phonological root structure.

One pivotal driving force behind the transfer effects in bilingual speakers appears to be economization, and it seems that this can provide a motivation for the changes in the pre-Germanic strong verb system as well.

3.1.1 *Contact-induced changes to the verb categories*

Research suggests that "optimization strategies" (Muysken 2013) or an economical language use (Myers-Scotton 2006: 74), are one key element in bilingual contact-induced change. One manifestation of this is what Muysken (2013: 725) calls "cross-linguistic priming" in search of "correspondences rather than direct transfer". Summarizing relevant case studies, Muysken (2013: 725) concludes: "In all cases it is a perceived similar structure in the languages involved which triggers the priming effects." This harks back to a type of grammatical interference that Weinreich (1968: 39) calls "Replica functions for equivalent morphemes":

> If the bilingual identifies a morpheme or a grammatical category of language A with one in language B, he may apply the B form in grammatical functions which he derives from the system of A. (Weinreich 1968: 39)

Such correspondences are triggered by perceptions of similarity. They can lead to "grammatical calques" (Weinreich 1968: 41): "What leads the bilingual to establish the interlingual equivalence of the morphemes or categories is either their formal similarity or a similarity in pre-existing functions" (Weinreich 1968: 39). Weinreich gives a number of examples from second language acquisition and situations of stable bilingualism, where this type of transfer is common. Especially in the latter situation the lines between imposition and borrowing become blurred so that pattern replication is quite common (see Chapter 2). In all of these cases bilingual optimization strategies are at work. This is also true for cases of extensive structural influence or pattern replication over generations, as attested by the well-known case of Cappadocian Greek. There "bilinguals, especially those that were Turkish-dominant, played a key role" (Winford 2003: 83; Karatsareas 2016).

It seems that such a scenario could explain the pivotal innovation, namely the use of the pre-Germanic perfect as a past tense and the loss of the aorist and the imperfect. Table 7 juxtaposes the Punic suffix and prefix conjugation and the

Proto-Indo-European perfect, present, aorist and imperfect together with their semantic values.[96]

Table 7. Punic suffix and prefix conjugations vs. PIE perfect, present and aorist

Punic *Qal*	**Semantic value**	**PIE**
Suffix conj. ("perfect")	resultative-stative performative general past tense past perfective	perfect aorist
Prefix conj. ("imperfect")	present tense (past imperfective)	present imperfect

The first observation is that Punic has two formally distinct stems and Proto-Indo-European three. In addition, the relevant stems of the suffix and the prefix conjugations are formed with more or less predictable formation rule. By contrast, this is only valid for the perfect in Proto-Indo-European. Both the aorist and the present stems can be formed with more than one type of stem formation, which is generally not predictable, in particular as root formations were replaced by more complex formations even within Proto-Indo-European. Although an original functional motivation for these different types seems conceivable, several of them have to be considered equal in function, at least for what is commonly reconstructed for Proto-Indo-European. However, for the perfect stem usually only one type of stem formation with a constant paradigmatic ablaut pattern is assumed. Semantically, the Punic system shows remnants of an aspectual system in the performative and past perfective uses of the suffix conjugation as well as possibly by past imperfective uses of the short imperfect. However, the system is by and large temporal: the prefix conjugation expresses a present tense in its core semantics, and the prefix conjugation has the value of a general past tense in most contexts, although present tense uses as performatives do occur. The semantic system of Proto-Indo-European is basically aspectual. The present tense stem expresses an imperfective present ("present") and an imperfective past tense ("imperfect"). The aorist is a perfective past tense, and importantly, does not form a present tense form. The meaning of the perfect is less certain, but for the purpose of our scenario we can assume that

96. This table focuses on the key elements of the comparison. It omits the injunctive, which expressed actions irrespective of temporal reference, thus similarly to a more general perfective or imperfective. However, the data from the languages in which the injunctive is attested suggests that it was used also to indicate "conditions having general validity" (Fortson 2010: 101). It is thus unclear whether the aorist injunctive would have been a partial match for the perfective suffix conjugation.

the pre-Germanic perfect was a resultative-stative, which is the general opinion (see Randall & Jones 2014). At an early stage perfect formation seems to have been restricted to telic roots, but for late Proto-Indo-European times an extension of perfect formation has to be assumed (see e.g. Rix & Kümmel 2001: 23). Although the Proto-Indo-European perfect is usually not seen as aspectually perfective, as a resultative stative it is semantically closer to a perfect than an imperfect (Smith 1997: 107–108), and thus matches the Punic suffix conjugation rather well. This semantic closeness becomes clear from Punic uses of the suffix conjugation in (12).

(12) K BN BDʿŠTRT MLK ṢDNM ʾYT ŠRN ʾR[…Z] L[ʾ]LY LʿŠTRT
'Bodastart, King of the Sidonians, built [this] šrn for his goddess Astarte.'
[Corpus Inscriptionum Semiticarum I 4.3/5,
quoted from Krahmalkov (2001: 172)]

Without a temporal reference point the only thing we know is that the suffix conjugation form *bano* (*bn*) refers to a completed action (in this context), and one translation could be to use the present perfect in English, i.e. 'has built'. Conversely attestations of the perfect in Sanskrit, such as *jagáma* 'he is come, gone' implicate a preceding action (see also 3.1 above). Moreover, the Proto-Indo-European perfect corresponds to the suffix conjugation also in its stative readings, which could also be seen as performative, e.g. Gk *γέγηθε* 'he rejoices' (see e.g. Randall & Jones 2014: 27 for an active present tense interpretation, namely as iterative-intensive). The only meaning a Proto-Indo-European perfect could not straightforwardly express is that of a generic past tense. However, the aorist is a very poor match for the suffix conjugation, not just because its core function – a past perfective – is restricted to special cases in Punic, because the main past tense meaning of the suffix conjugation is that of a generic past tense, but especially because the aorist could not be used with present tense reference.

We contend that it is plausible that a Punic-dominant bilingual speaker, motivated by the formal and partial semantic similarity, replicated the usage pattern and functional range of the Punic suffix conjugation in the pre-Germanic perfect and used it as a past tense in addition to the existing use as a resultative-stative. This transfer scenario has at least one close parallel in the functional transfer of a past tense value to the English present perfect by learners of German or French. This is also motivated by formal similarity, namely the 'have' + past participle construction and the functional similarity, namely past (perfective) vs. perfect, spelled out as follows:

a. Perfect construction in German (source language, SL) and English (recipient language, RL)
   German: past tense, e.g. *Ich habe den Brief gestern geschrieben*. ('I wrote the letter yesterday'), *Er ist angekommen*. ('He has arrived.')
   English: (present) perfect, e.g. *I have written the letter*. (resultative-stative: letter is finished, not past tense: **I've written the letter yesterday*)
   formal similarity: 'have' + past participle
   functional similarity: past reference implicature in English: *I've written the letter* presupposes that I wrote it at some point before the reference time.
b. Pattern replication/transfer
   SL: *Ich habe den Brief gestern geschrieben*. ('I wrote the letter yesterday').
   RL: *I have written the letter yesterday*. ('I wrote the letter yesterday').
   SL language speaker perceives formal and semantic correspondences and economizes by functionally extending the functional range of the RL construction.

The functional reinterpretation of the pre-Germanic perfect could have worked very similarly.

a. "Perfect" in Punic (source language, SL) and Pre-Proto-Germanic (recipient language, RL)
   Punic:
   meaning: past tense/perfectivity including resultative-stative readings
   form: $C_1aC_2VC_3$-: e.g. ***ya**ton* 'he gave/has given' (KAI 18/19, see Krahmalkov 2001: 172)
   $C_1eC_1óC_2$- (strong stem): PIE $^{+}g^{u}eg^{u}ómh_2e$ 'has come' (cf. Vedic *jagáma* 'has come')
   Formal similarity: salient ablaut marking
   Functional similarity: resultative-stative and stative/performative readings
b. Alignment of functions
   pre-Proto-Germanic perfect used with Punic functions, increasing the range of meanings to include a general past tense

The perceived formal similarity lies in the morphological property of ablaut that is a consistent marker of the pre-Proto-Germanic perfect, which is also characteristic of the Punic perfect.[97] One could say, the principle of "ablaut" is something that

97. The formal exponent of ablaut in the Punic perfect stem is *a* in e.g. ***ya**ton* 'he gave'. However, there are some cells in the paradigm which are affected by regular sound change, especially qualitative changes, e.g. in the 3SG.F, which has the structure C*i*CC*á* with loss of the second vowel and reduction of the first, e.g. Neo-Punic *felá* < $^{+}$*feʿlá* < $^{+}$*feʿala*. (Krahmalkov 2001: 161). The second vowel slot historically reflects differences in transitivity, and it generally is a major criterion for

someone with a background in a Semitic language is likely to understand as opposed to someone to whom this is unknown. This is a correspondence in the sense of Muysken (2013) which bilinguals seek out, and latch onto. If there is then also a functional similarity that connects the forms in both languages, then it is possible that convergence occurs. The semantic alignment of relatable forms in two languages was illustrated above. But even without a clearly perceived formal similarity, it is conceivable that the Punic functions were extended onto the pre-Proto-Germanic forms. This happens e.g. with Turkish aspectual forms that are functionally reinterpreted according to the German model by Turkish-German bilinguals (see Rehbein & Karakoç 2004: 26). It is important to emphasize that no actual structure is transferred. This is only an extension of the functional range of the pre-Proto-Germanic perfect causing it to correspond to the functional range of the Punic perfect. One pivotal factor is the perceived similarity in ablaut as a morphological property, not the similarity in actual forms.[98] Another key factor is that the aorist lacked a present tense. To express some kind of perfectivity in the present tense the only option was the perfect in its resultative reading.

As a result, it seems conceivable that a bilingual Punic-pre-Proto-Germanic speaker would use the perfect as the main past tense when speaking pre-Proto-Germanic, and use the aorist or the imperfect less for that purpose or not at all. The result is that the aorist and the imperfect fell into disuse and were eventually lost. The loss of categories in such situations of language contact is not uncommon, if a category is "stranded" in the bilingual system (see e.g. Winford 2003: 96). On the other hand, new preterits would have to be created for every verb root that did not have an associated perfect in Proto-Indo-European. This is exactly what happened, and as a result all Proto-Germanic strong verbs have associated preterits of which a considerable number are post-Proto-Indo-European (Mailhammer 2007a: 114–115).

3.1.2 *Loss of reduplication in the strong preterit*

The next step is the loss of reduplication in the reinterpreted pre-Proto-Germanic perfect in the pattern already described, represented here in Table 8.

---

verb classification in Semitic languages (see Kienast 2001: 237–257). But it seems that in Punic only the *a*-type is attested (Krahmalkov 2001: 154), which makes a classification on the basis of the second slot superfluous.

98. Formal matches are likely to be exploited while mismatches are retained if they do not disrupt the overall functionality and logic of the system. Thus, the difference between a strong and a weak stem in the Proto-Indo-European perfect, which was also expressed by ablaut, may have been retained, simply because there was no equivalent in Punic, except for the regular changes to the ablaut in certain forms.

Table 8. Loss of reduplication in the pre-Proto-Germanic perfect

Class	Reduplication
I–V	Lost without trace (⁺*etanan* loses reduplication more or less regularly)
VI	Lost without trace (possibly language-internally)
Reduplicating verbs	Preserved Group A + ablaut: *ē*-verbs (⁺*lētanan* : ⁺*lelōt* : ⁺*lelōtum* : ⁺*lētanan* BUT ⁺*slēpanan* : ⁺*sezlēp* without ablaut) Group B – ablaut: all other verbs

What all verbs that preserve reduplication have in common is that they either have no difference in ablaut grade between present and preterit stems (Group B), or that their preterit stems are ambiguous with respect to verb class (Group A; *ō* is also found in class VI). Of these two groups Group B is unproblematic, since the lack in ablaut distinction meant that there was no choice but to keep reduplication. However, Group A had an inherited pattern with an ablaut difference between present and perfect stems, e.g. PIE ⁺*leh*$_1$*d-e-* vs. ⁺*lelóh*$_1$*d-*, even though this may not have been true for all members, given that Proto-Germanic ⁺*slēpanan* 'sleep' is attested without ablaut (Gothic *slepan* : *saislep*).[99] Looking at the architecture of the strong verb system, the pivotal element is the unambiguous association of a particular root structure with an ablaut pattern. This is upheld in all ablaut classes, and this gives the system its stability (Mailhammer 2007b). A loss of reduplication in verbs of the ⁺*lētanan*-type, i.e. with *ē* as root vowel would have meant that their preterit vowel was the same as in class VI, whose defining root structure is C*a*C. It is likely that this situation was undesirable to bilingual speakers, and therefore solved by retention of reduplication in Group A, given that this group of verbs was different from all other ablauting verbs in terms of root structure because in each case the root vowel was neither *e* nor *a*. They could easily be left with the reduplicating verbs, which did not have a uniform root structure anyway. What makes the Punic contact scenario appealing is that it explains the focus on ablaut and phonological root structure. Ablaut is crosslinguistically much rarer than reduplication. Reduplication is considered to be a rather basic morphological property and it is

99. Whether PGmc. ⁺*slēpanan* originally really had no ablaut is doubtful, given that this would really be an exception in the entire system (usually PIE perfects have ablaut). It is only attested without ablaut in Gothic. The other Germanic languages cannot offer any helpful data, given that they have remodeled the reduplicated past tense. Based on the Gothic evidence alone, it is at least questionable whether such an ablaut-less perfect could have existed in Pre-Germanic. Moreover, it is interesting that PGmc. ⁺*slēpanan* has no accepted etymology (Mailhammer 2007a: 225), so it may well be a loanword. In spite of this, however, to be maximally careful, we do not want to rule out that such an inherited form could have existed in Pre-Proto-Germanic.

often iconic. Thus, one would expect reduplication rather than ablaut to survive in a contact situation, especially since its functional load in pre-Proto-Germanic was low. Afrikaans or Maltese are two examples of languages with (historical) ablaut that have been exposed to massive contact with languages that have no ablaut or whose root structures do not easily lend themselves to an ablaut adaption. They have either virtually lost this morphological property (see e.g. Harbert 2007: 207 for Afrikaans), or do not exhibit it in borrowed verbs (Maltese verbs of Italian origin have invariant roots; see Versteegh 2010: 639). By contrast, in situations of bilingualism involving two languages with ablaut, it survives and is actually strengthened. We briefly mention two studies in support of this assertion.

Plag (2000) investigated past tense productions of 21 advanced German learners of English and concluded (p. 148): "What the learners seem to do […] is to use an ablaut pattern which is both close to their German native pattern and possible in English." This suggests that bilinguals target correspondences between both languages and exploit them. It also shows that knowledge of ablaut as a principle allows speakers to make use of it.

In order to specifically test the hypothesis that familiarity with ablaut as a morphological marking strategy can lead to an increased application of this strategy in bilingual language production, Mailhammer & Zeidan (forthc.) conducted an experiment at Western Sydney University, which we briefly report here.

The research question was whether English-Arabic bilinguals would display similar behaviour as English-speaking monolinguals and Chinese-English bilinguals in the production of English nonce past tenses.[100] Based on research showing that bilinguals in general activate and capitalize on correspondences between the languages in their repertoires (see especially Muysken 2013), and specifically that past tense marking strategies can be transferred (Lu 2016), it was predicted that Arabic-English bilinguals would show a higher productivity of past tense with vowel change, given that Arabic makes extensive use of vowel change in morphological stem formation. This prediction was confirmed; the difference between the higher mean productivity of ablaut past tenses in the English-Arabic sample compared with both the monolingual English and the English-Chinese samples was statistically significant on the 0.01 level. What is important to note is that the bilinguals in Mailhammer & Zeidan's study were English-dominant heritage speakers of Arabic and Chinese. That is, the observed effect occurs even if the speakers are not dominant in a language with pervasive ablaut. In the context of the scenario

100. Arabic was used as a proxy for Punic, given that the relevant parts of how TAM are marked are identical. English was used as a proxy for Pre-Germanic/Proto-Indo-European. Ablaut in the English strong verbs is far less regular than in other Germanic languages, and thus would approximate the role of ablaut in the verb system of Pre-Germanic sufficiently.

this suggests that not only Punic dominant bilinguals but also Germanic-dominant bilinguals would have been likely to overgeneralize ablaut formations. The results of this experiment are proof of concept for our scenario; they confirm that it is indeed plausible to assume that bilingual Punic-pre-Germanic speakers could actually have focused on ablaut as a marking strategy and over-applied it.

This necessitates a discussion of why the majority of strong verbs (classes I–V, and probably also the reduplicating verbs) retained an ablaut differentiation in the past tense, i.e. *a*-grade in the 1st and 3rd person singular indicative, but zero grade (I–III, red. verbs.) and lengthened grade (IV, V) in the 2nd person singular indicative, the plural and the subjunctive. Given that this difference is levelled in many Germanic daughter languages, and given that Punic does not show a comparable difference, it appears somewhat puzzling that levelling was not a result of the contact proposed here. To understand the retention of this feature, it has to be remembered that the contact type described here is primarily about finding "docking points", points of correspondence and less about simplification. In a similar vein, the loss of reduplication was not motivated by simplification but by focusing on one morphological marking strategy at the expense of another.

The agents of change were native speakers of Pre-Germanic, to them the ablaut distinction was unproblematic, and from their "Punic" side they had an understanding of ablaut. There was no need to level this distinction, because it was familiar "terrain", something the relevant bilinguals were able to deal with.[101] One might even say that this was a reason for retaining it, and that the subsequent levelling that occurred eventually in most daughter languages happened because this special focus and understanding of ablaut was no longer present after Punic ceased to be spoken in the area.

It thus seems plausible that familiarity with ablaut from Punic prompted the loss of reduplication in the functionally extended pre-Proto-Germanic perfect. This and the loss of the aorist and imperfect align the pre-Proto-Germanic and the Punic system much better. Both languages possess now a clear and predictable difference between present/imperfect and past tense/perfect, expressed by essentially the same morphological property, and the semantic values of these categories match up as well.

101. A similar point may be said about Verner's Law. We think the relevant consonantal alternations were not levelled because they were predictable, and because native speakers of Germanic did not have any difficulties with them. Moreover, Punic also had predictable consonantal alternations, such as geminated stems. We thank Stephen Laker (p.c.) for alerting us to the issue of Verner's Law.

3.1.3 *Systematization and uniformization of ablaut*

The two remaining innovations of the Germanic strong verbs are the uniformization of the present tense stem and the systematization of ablaut. The former is the more radical change, since it involved significant morphological restructuring, while the latter manifests itself mainly in new formations and class changes, but is otherwise already predisposed by virtue of the inherited material. Both changes could have happened simultaneously and possibly over a long period of time. We will discuss both in succession starting with the systematization of ablaut because that may be relevant to the uniformization process, but we are not making any claims about a chronology.

The essence of the systematization of ablaut is the connection between the phonological structure of a verb root and its characteristic inflection/ablaut pattern. Thus, it is not simply that verbs are grouped according to their ablaut patterns, which then yields inflection classes. If that were the case, we would probably see a mix of root structures in each group and we would not expect new formations to stick closely to the characteristic root structure of a group. New preterit forms for strong verbs that had no inherited preterit because they did not form a perfect in Proto-Indo-European, are always formed analogically to verbs with the same root structure, i.e. *ō* for class VI, but *a* for classes I to V (in the preterit singular). What makes the Germanic strong verbs so similar to verbs in Punic and other Semitic languages is that the inflectional or ablaut pattern of a verb is unambiguously determined by its phonological root structure. This is illustrated in Table 9.

Table 9. Root-structure based inflection classes in Punic and Germanic[102]

Inflection class label	Class membership (root structure)	Ablaut pattern perfect vs. imperfect (*Qal* stem, 3SG.M)[102] example preterit sg. vs. present (1SG.IND) example	Class membership (root structure)	Inflection class label
Strong verbs (canonical type)	$C_1C_2C_3$	$C_1aC_2\bar{o}C_3$ vs. *yi*$C_1C_2\bar{o}C_3$(u) *qatōl* vs. *yiqtōl*(*u*) 'kill' CaC_1C_2 vs. CeC_1C_2 +*halp* vs. +*helpō* 'help' CaR vs. CeR +*bar* vs. +*berō* 'carry'	CeC_1C_2 (III) CeR (IV)	Strong verbs, III, IV
Weak verbs[103] II-ʾaleph/ ʿayin	C_1ʾ/ʿC_3	C_1aC_3 vs. *yi*$C_1(C_2)\bar{o}C_3(u)$[104] *sal* vs. +*yisol*(*u*) 'ask' CaC vs. CeC *gab* vs. *gebō* 'give' C*ō*C vs. CaC +*fōr* vs. +*farō* 'go'	CeC (V) CaC (VI)	Strong verbs, V, VI

102. Punic attestations from Krahmalkov (2001: 159–195).

103. In the structure notation we indicate phonetic length in Punic *o* to facilitate the comparison with Proto-Germanic, but this vowel did not have a phonological length distinction in Punic, so that <o> is not ambiguous: it can only denote a phonetically long vowel.

104. This synopsis contains only the types that show significant divergences from the canonical patterns (see 1.2 above and Friedrich & Röllig 1999: 95–123 for further details).

Table 9. (*continued*)

Inflection class label	Class membership (root structure)	Ablaut pattern perfect vs. imperfect (*Qal* stem, 3SG.M)[102] example preterit sg. vs. present (1SG.IND) example	Class membership (root structure)	Inflection class label
II-gem.	$C_1C_2C_2$	$C_1aC_2(C_2)$ vs. $yiC_1\bar{o}C_2(C_2)$[105] *sab* vs. +*yisob* 'encircle' CaC_1C_1 vs. CeC_1C_1 +*wann* vs. +*wenno* 'labour'	CeC_1C_1[106]	Strong verbs, III
I-*n*	nC_2C_3	$naC_2\bar{o}C_3$ vs. $yinC_2\bar{o}C_3$[107] *nador* 'he vowed' vs. *tissa(')* 'you carry off'		
II-*y*/*w* (hollow)	C_1y/wC_3	C1$\bar{o}$C3 vs. $yiC_1\bar{\imath}C_3$ / $yiC_1\bar{u}C_3$[108] *con* 'it was' vs. *l-ipoq* 'I would acquire' CayC vs. CeyC +*staig* vs. +*steigō* 'ascend'	*CeyC* (I)[109] *CewC* (II)	Strong verbs, I, II
		$C_1eC_1\bar{o}$(C) : Cē(C) +*lelōt* : +*lētō* 'let' C_1eC_1ayC : *CayC* +*hehait* : +*haitō* 'call' C_1eC_1awC vs. *CawC* +*stestaut* vs. +*stautō* 'push' $C_1eC_1\bar{o}$(C) vs. Cō(C) +*feflōk* vs. +*flōkō* 'hit' C_1eC_1aCC vs. *CaCC* +*fefall* vs. +*fallō* 'fall'	a. Cē(C) b. *CayC* c. *CawC* d. Cō(C) e. *CaCC*	Reduplicating verbs

105. Verbs II-*ʾaleph*/*ʿayin* originally are inflected like strong verbs in the imperfect, except that by Neo-Punic times neither of these "gutturals" was pronounced anymore (Hackett 2008; Krahmalkov 2001: 20, 4; Lipiński 2001: 458; Segert 1997: 60).

106. The geminate is simplified word-finally in the suffixing form (Krahmalkov 2001: 169), the prefixing form is based on Hebrew (Lipiński 2001: 450; McCarter Jr. 2008: 68).

107. All verbs in this group that can be reliably reconstructed have sonorants (*r, l, m, n*) as geminated C_1 (Mailhammer 2007a: 218–222). However, it is noteworthy that 50% of safely attested verbs have no etymology (Mailhammer 2007a: 218–222), and that in the remaining cases the origin of the geminate is not always clear (see Scheungraber 2010: 84–108 for further details).

108. The main effect of the nasal is that it assimilates in contact with another vowel (see e.g Lipiński 2001: 193 for an overview of consonant assimilation in Semitic languages generally).

109. In Hebrew, the difference between II-*y* and II-*w* roots shows up in the thematic vowel of the imperfect (Kienast 2001: 369; McCarter Jr. 2008: 69). Given the paucity of data both in terms of material and the lack of details on vowels from the writing system, we assume the same distribution for Punic. However, although the spelling of vowels is not always reliable, Canaanite *ū* is usually preserved in Punic (Friedrich & Röllig 1999; Krahmalkov 2001: 31). Also, there is a pervasive tendency for *ō* in stressed syllables to change to *ū* in later Phoenician and Punic (Friedrich & Röllig 1999: 41; Krahmalkov 2001: 30). We therefore assume *ū* as the thematic vowel for verbs II-*w*. This must remain tentative, as evidence is scarce.

110. This root structure is characteristic of an early stage of Proto-Germanic. A later stage would have C*ī*C. This is of secondary significance here, as the focus is on the principle of systemic organisation rather than a concrete formal match.

This table is simplified and contains only a selection of the Punic inflection classes – those that show more serious deviations from the canonical pattern. We also have simplified on the Germanic side, for instance by omitting other principal parts of the paradigm. The point is that Table 9 shows just how similar Punic and Proto-Germanic are in the systemic organisation of their verbs. Apart from the obviously identical principle of connecting a particular root structure with an inflectional class – mostly ablaut-related – there are also specific formal correspondences in the root structures that are characteristic of individual classes, e.g. the so-called hollow roots (II-*y*/*w*) in Punic and classes I and II of the strong verbs. As mentioned above, the classes are historically incipient in that they originate through regular sound change, but to utilize this and to follow through with it in this degree of thoroughness is remarkable enough to require a special motivation.

Within the scenario that we have been investigating, it seems conceivable that bilingual speakers noticed a similarity between both languages, namely that the phonological root structure of a verb root permitted inferences about the formation of the remaining principal parts of the paradigm. But whereas in Punic this was very consistent, it was less consistent in Pre-Proto-Germanic: a number of roots did not have perfects or the root vowel of the present tense stem was different from the characteristic structure, e.g. because of a zero grade formation (cf. Proto-Germanic $^{+}k^{w}umanan$ 'come' or $^{+}wiganan$ 'fight'). All that would have to be done now was to note the correspondence and apply the same rigour to Pre-Germanic that existed in Punic: In the cases of the irregular present stems the verbs were placed in the verb group with the appropriate consonantal root structure and new preterits were created on this basis too but not e.g. according to the weak pattern, as with the preterit presents. Moreover, deviant present tense root structures were ruthlessly transformed through normalization of the root vowel, e.g. $^{+}k^{w}emanan$ 'come' (attested e.g. in Gothic *qiman*), and the consonantal root structure, e.g. $^{+}hwerban$ 'turn to' (< $^{+}hwerfan$). In some cases doublets or by-forms testify to this process (Mailhammer 2007a: 123–129).

It is exactly this rigor and the fact that this systematic use of ablaut is unique in Indo-European that has caused much amazement to generations of scholars who have investigated the Germanic strong verbs (see Mailhammer 2007a: 3 for indicative quotations). Contact with Punic offers a motivation for this development that is more plausible than an internal account, which can only work with the notion of coincidence.[111]

111. Note that the exploitation of phonological features for the formation of inflection classes is not at all rare. What is rare – to our knowledge – is that it is almost the entire root structure that matters and that it is linked largely to a method of stem formation that is based on ablaut.

The final innovation to be discussed here is the uniformization of present tense stems in pre-Proto-Germanic. It is not uncommon for functionless morphology to be lost, and the extreme variation in present tense stems is largely due to synchronically functionless morphology. What makes the present tense stem a good candidate for a process of uniformization is the fact that its 20 or so allomorphs are all lexically conditioned.

Thematic present stems with the structure R(*é*)-*e*- are by far the most frequent type of present stems attested (Rix & Kümmel 2001: 18), and in most Indo-European languages this type replaces other types, so in a way what happens in Germanic happens also elsewhere. However, what makes the Germanic case interesting is the degree to which this happens and the drastic nature of the morphological changes to existing roots (see Mailhammer 2007a: 115–138). In particular, it seems noteworthy that this is a case of almost total uniformization rather than regularization, i.e. it is not the number of exceptions that is reduced but the number of functionally equivalent variants. Held against the background of a Punic system, in which the present tense formation was fully predictable, and factoring in a situation in which simple thematic presents were already productive, it is plausible that the contact situations in which this process of uniformization took place simply worked as a catalyst, speeding up this development and making it more far-reaching than in other Indo-European languages. There are two contact situations in the hypothetical scenario that is explored here: one is the contact between Punic and Germanic in various constellations, and the other is the inner-Germanic contact, especially in the process of koinéization in the environment of the Carthaginian settlements. All of these situations would have been conducive to speakers making their present tense stems more uniform, thus amplifying the already existing trend to use simple thematic presents to replace other types of formation. But perhaps it is worth pointing out a fact that connects this development even more with Punic as a contact language. There is a strong tendency in Punic – as in all Semitic languages – to enforce uniformity with respect to the prevalent model of triradical roots (see e.g. Kienast 2001: 343). For instance, weak verbs are often treated as strong in terms of their inflection if possible.

To sum up this section, the similarities between Punic and Proto-Germanic that were pointed out in Section 1 above are consistent with the assumption of contact-induced change. The next section will investigate the survival and spread of these innovations.

3.2 Contact-induced change II: Spread and change

In order for a change to become actuated, it has to become part of the language that is passed on to the next generation. That is, an innovation has to spread and take hold in the speech community. This is somewhat simplified, because it may be taken to suggest that the innovations discussed in the previous section all happened in one go, i.e. that all reduplicative prefixes disappeared in the idiolect of one speaker and this innovation then spread. In reality most of the processes here were probably multi-stage and spread simultaneously as they diffused.

In reconstructing a plausible scenario of actuation linguistic and non-linguistic factors play a role. The former mainly revolve around the issue of compatibility, and the latter have to do with human behaviour and the likelihood that new behaviour spreads. It appears that generally the non-linguistic factors often outweigh the linguistic factors.

We will start with the linguistic side. In our case the spread of the innovation between bilinguals is tacitly assumed, given that we have just shown the compatibility of the two systems involved because their similarity in this respect is a pivotal part of the scenario. But since we must assume that not all speakers of (Pre-) Proto-Germanic knew Punic and since Punic became extinct at some point, the question is how the innovations just described spread to monolingual speakers of Pre-Proto-Germanic. If it is conceivable that there was at least one Punic-influenced variety of Pre-Proto-Germanic spoken in and around the Carthaginian settlements, because this was where the Punic-dominant bilinguals lived, then this must have been the locus of spread. But how would the new strong verb system interact with the old aspectual-stem-based system of Proto-Indo-European (proxying for Pre-Proto-Germanic again)?

From a structural perspective the two verb systems differ on a functional as well as a formal level: depending on its use, the Punic-influenced perfect may correspond to a pre-Proto-Germanic perfect, an aorist indicative, or an imperfect. Moreover, in the case of the performative use, it may have no corresponding category at all. Formally, the Punic-influenced variety possesses none of the following forms: aorist, subjunctive and imperfect. Moreover, the system of Proto-Indo-European stem formations has largely disappeared, as the present stem has undergone a drastic simplification. In addition, in the Punic-influenced variety the perfect has lost its reduplication in the vast majority of forms, and the expression of the paradigmatic stems is performed largely by ablaut alone and tied exclusively to phonological root structure.

However, on closer inspection it becomes apparent that a functioning communication with the speakers of the less Punicized varieties is achieved despite these mismatches: The Punic-influenced perfect would almost certainly be recognized

as an Indo-European perfect in spite of the missing reduplication, because the personal endings in conjunction with the ablaut grade of the accented root guarantee an unambiguous identification. In addition, the Punic-influenced perfect would be intelligible to Germanic-dominant speakers on the functional level too: The resultative-stative use of the Punic-influenced perfect would be very close to the function of the pre-Proto-Germanic perfect, and therefore would have been unproblematic. In identifying the past perfective use, the Germanic-dominant speakers would probably notice that the Punic-influenced perfect is employed in situations in which the aorist indicative should be used, but also that exactly the aorist is completely absent from the Punicized variety. As the pre-Germanic perfect has some affinity to the past due to its resultative character, it can be assumed that an 'aoristic' use, especially if combined with other markers of past reference, e.g. adverbial modifiers, would not be a serious obstacle to successful communication. This is very similar to a German influenced learner variety of English that uses the present perfect with the value of a past tense in sentences like *I have been to France last year* meaning 'I was in France last year'. Consequently, it is plausible that only the perfect was used in intra-dialectal communication between speakers of a strongly Punic-influenced variety and speakers of a weakly influenced or non-influenced variety. It is even possible that the Germanic-dominant speakers could have found this substitute for the aorist easier to handle due to its stable form and high predictability without suffering a functional disadvantage. Thus, linguistically it appears possible that the assumed Punic-influenced use of the perfect could spread to the Germanic-dominant speakers.

The development of the perfect into the past tense of a purely temporal system in the variety spoken by Germanic-dominant bilinguals or monolinguals follows naturally from this: Since the Punic-influenced perfect would have been used mainly with past reference or affinity and equally often instead of the imperfect, the elimination of verbal aspect in the past tense and the shift to a completely temporal system by over-generalization of the feature [+PAST] would have been a logical step. The development of the perfect into a past tense would have been assisted by the fact that the imperfect gradually fell into disuse, since it was usually replaced by the perfect in the Punicized varieties and then also in the hinterland varieties. Thus, the substitution of the aorist by the perfect and the subsequent move to a temporal system would have been directly motivated by the use in the Punic-influenced variety, and furthermore assisted by the functional similarity and the associated morphological simplification.

Apart from the elimination of aspect on the level of the past tense and the transition of the perfect to a preterit, the uniformization of the present stem is also likely to carry over into the hinterland varieties. With the aorist gone, there was no need for all the different types of present formations corresponding to certain kinds

of aorist and reflecting different chronological stages of present stem formation. As the R(*é*)-*e*-present type was probably spreading anyway by late Proto-Indo-European times, the Punic influence merely supported an ongoing development. Needless to say, some verbs managed to escape this first wave of uniformization, e.g. a few athematic verbs or some of the zero-grade presents, but the process of normalization was continued in the Germanic daughter languages.

The systematization of ablaut, i.e. the exploitation of the already latently existing connection between phonological root structure and ablaut/inflection pattern after the other changes is unproblematic. In addition, it makes use of a powerful mnemotechnic mechanism that has guaranteed the system's (partial) survival in most Germanic languages until the present day (see Mailhammer 2007b). The fact that the Germanic strong verbs are one of the simplest principal parts systems conceivable with inflection class membership being unambiguously clear from the phonological structure of a verb's citation form is a clear cognitive advantage over the old, largely lexically-determined and opaque system, in which pivotal parts of the paradigm were not predictable.

From this discussion it becomes clear that in principle no linguistic obstacles block a spread of the innovative, Punic-influenced forms even to the largely monolingual hinterland speakers. It is evident that the linguistic compatibility between varieties spoken by Punic-dominant and Germanic-dominant speakers will be of attenuated significance in comparison with the social situation. We will now briefly highlight pivotal non-linguistic factors.

The key element of the social ecology in the relationship between the Carthaginians and the local inhabitants in "colonial" settings is the vast attraction of everything Carthaginian to the locals.[112] This attraction did not only have a physical element in the sense that people moved to the Punic settlements where they were fully exposed to the Punic civilization. It also meant that the hinterland would have been heavily "orientalized", to use the traditional label. We spelled this out in our general reconstruction of the contact scenario, and even though "orientalization" must be understood as hybridization rather than a one-way process, known cases, such as Sardinia and especially Spain demonstrate the drastic cultural influence the Phoenician colonizers exerted on the local population.

---

112. We are aware of the issues revolving around the often-used term "prestige" (see recently Lutz 2013 and Salmons 2015); perhaps "attraction" is better, because it does not imply a positive evaluation and is neutral with respect to the question of class etc. At any rate, as known cases clearly show, many aspects of Punic culture including the language would have been evaluated as desirable by the local peoples. Note that this does not necessarily mean that they would have been held in high esteem but rather seen as inevitable changes or even as a strategy to understand and finally overcome the "invaders".

It is thus likely that at least parts of the Punic-influenced variety of Pre-Germanic spread into the hinterland where it was taken up to various degrees, possibly in relation to the relative independence of the speech community, similarly to modern urban and global varieties that carry the prestige of economic and social success as well as of education. In analogy, we briefly refer to the case of Libyan, which has a significant amount of Punic loanwords, and people even in the hinterland of the Carthaginian coastline were proud to be Punic or even associated with the Phoenicians long after the destruction of Carthage.

Two specific points of attraction were evidently the Punic religion and the writing system, which we discuss in Chapters 7 and 8. Both are common vehicles of linguistic influence. We will not dwell on this point, firstly because we do not want to sound circular, given that we propose the influence of Punic in those two areas in this book, and secondly, because – if correct – they are trivial even if powerful arguments. We note only that these two cultural achievements or features of the Carthaginians fit well into the reconstructed scenario as they would have doubtless supported the spread of Punic and the Punic influenced varieties of Pre-Proto-Germanic.

To sum up, we believe that in the scenario presented here, it is likely that first Punic-dominant and Germanic-dominant speakers with many weak social ties across communities acted as agents of change in the sense of Milroy & Milroy (1985). These innovators then passed their innovations on, and the first adopters took on the changes due to the immense attraction of anything that was Punic as a vehicle for social and economic improvement.

CHAPTER 6

Explaining the Germanic split word order

The linguistic studies cited in Chapter 1 leave no doubt that Proto-Germanic was not a uniform SOV language, as was Proto-Indo-European, but had changed toward a different word order type in which especially V2 was an innovation. The distribution of these types was partially pragmatic or discourse determined (see Cichosz 2010: 5–6), but there is also an evident split by clause type: V1/V2 at the sentence level ("in main clauses") and V-late, i.e. later than 2 if possible, in subordinate clauses, the latter placement being a residue of the earlier V-final syntax (see especially Salaberri 2017: 233 on the conservative nature of word order in subordinate clauses). The question is how to explain this split. First of all, there are a number of approaches that have attempted to explain a more general trend towards a right-branching type, but none of them is convincing (see Salaberri 2017: 238–241 for a summary). Perhaps the currently most favoured account is to assume that extraposition as a means to structure information led to ambiguous syntactic structures that were subsequently reanalysed as V2. V-late structures would then reflect the unmarked order, whereas V2 and V1 would reflect a focused ordering (see Salaberri 2017: 241). However, this does not explain the distribution of the word order types according to clause type, and there are other problems (see Salaberri 2017: 241). Other published explanations for the development of V2 see it as a language-internal change. This is true of theory-oriented approaches, such as Weerman (1989);[113] Holst (2010)[114] and Haider (2014),[115] but it is also true of the most traditional and still favored explanation via Wackernagel's Law:

---

113. Cf. the critique in Ebert (1990).

114. Holst (2010: 153–154) tries to explain the tendency of Germanic toward verb-initial placement as first a change to VSO by a focusing, hence fronting, of the finite verb, then the change into V2 by focusing a constituent other than the finite verb in declarative clauses, hence fronting this non-finite constituent there and shifting the finite verb to the second position. He does not explain why those changes of focussing occurred. This is explaining *obscurum per obscurius*. Furthermore, if this were a natural chain of events it should have happened in the other Indo-European languages as well, which it did not. This is a fatal problem for this approach. It is also evidently unappealing, because there exists no evidence that Germanic ever was a VSO language.

115. According to Haider (2014) the change to V2 is at the root of the splitting of verb placement in Germanic and the subsequent developments in the Germanic languages: "The trigger of the

> Dies [dass Klitika nicht mehr als zwei Silben haben] auf das Verbum angewandt, würde zu der Annahme führen, dass die ein- und zweisilbigen Verbalformen, oder überhaupt die kürzern Verbalformen bis zu einem gewissen Umfang, im Hauptsatz an die zweite Stelle rückten, dass dagegen die andern Verbalformen auch im Hauptsatz die im Nebensatz herrschende Endstellung besassen. Es wäre dann weiter anzunehmen, dass das Germanische die für die kürzern Verbalformen gültige Regel generalisiert hätte.
>
> (Wackernagel 1892: 427; cf. Noel Aziz Hanna 2015: 23, 201)
>
> ['This property [of clitics not to have more than two syllables], applied to the verb, would lead to the assumption that the verbal forms of one or two syllables, or quite generally the shorter verbal forms up to a certain length, would move to the second position in main clauses, whereas the other verbal forms would occupy even in main clauses the final position dominant in subordinate clauses. The next assumption would have to be that the rule valid for the shorter verbal forms was generalized in Germanic.']

It should be obvious that all attempts to explain the change as internally motivated or "natural" fail, because they face the problem that other Indo-European languages have not undergone it, despite identical structural preconditions. Nevertheless, Wackernagel's is one of the favorite explanatory proposals for the SOV → V2 development event though it has been criticized more recently on account that stress is a poor predictor for word order in early Germanic as opposed to information structure (Noel Aziz Hanna 2013: 5–6). What is also left unexplained is the occurrence of declarative verb-initial sentences in ordinary prose (Vennemann 2003b: 358–359). In the most recent comprehensive treatment of Wackernagel's Law for a Germanic language, Noel (2015), Wackernagel's proposal to use the Law as a basis for explaining the Germanic change of verb position is rejected as well:

> Auch der älteste deutsche Prosatext liefert keine Evidenz für Wackernagels Idee, dass sich die V2-Stellung in den germanischen Sprachen über die Stellung eines enklitischen Auxiliars entwickelt haben könnte.
>
> Abschließend ist festzustellen, dass bei einer Erklärung von V2 über die Bewegung leichter Verben in die Wackernagelposition ungeklärt ist, warum das Verbum Substantivum in anderen Sprachen mit leichten Verben nicht an zweiter Stelle steht. In den germanischen Sprachen ist die Frühstellung des Verbs, wie polare Fragen zeigen, nicht auf Auxiliare oder Kopulaverben beschränkt. Es wurde

change was the grammaticalization of the V2 property" (p. 75). His interest is not in explaining the trigger. The problem for his approach is, however: If Germanic developed from a language of the type represented by the Slavic languages (and indeed originally by all Indo-European languages, Haider's T3 type, cf. p. 61), and if all word order changes in Germanic are internally motivated by general principles, why did Slavic (and indeed all other Indo-European languages) not develop the Germanic way?

> argumentiert, dass sich die Frühstellung finiter Verben im Germanischen weder innersprachlich noch aus dem Indogermanischen ableiten lässt.
>
> (Noel 2015: 223–224)[116]
>
> ['Nor does the oldest German prose text provide any evidence for Wackernagel's idea that the V2 order in the Germanic languages might have developed via the position of an enclitic auxiliary.
>
> Finally, we have to conclude that an explanation of V2 via the movement of light verbs into the Wackernagel position leaves unanswered the question why the verbum substantivum does not take the second position also in other languages with light verbs. As is shown by polar questions, the early placement of the verb in the Germanic languages is not restricted to auxiliaries or copulas. We have argued in favor of the view that the early placement of finite verbs in Germanic cannot be derived either language internally or from Indo-European.']

Turned into its positive formulation, the conclusion expressed in the final sentence of this quotation says that 'the early placement of finite verbs in Germanic must be derived language-externally by contact with a non-Indo-European language'. This very conclusion had also been reached, though then on a less firm foundation, in Vennemann (2003b), namely within the theory we are elaborating in the present book. The Semitic languages, including Phoenician and Punic, are all rather consistent VSO languages. In particular the finite verb takes the first position in verbal clauses, both main and subordinate, and both verb-first and verb-second order occur regularly in Phoenician including Punic (see e.g. Gensler 1993: 202, 203; Lipiński 2001: §50.17; Friedrich & Röllig 1999: 316; Segert 1976: 249).

According to the theory developed in this book, Proto-Germanic speakers were in contact with speakers of Punic, a Semitic language of much cultural and perhaps also political appeal. In a situation of intense language contact, bilingual speakers of Pre-Germanic capitalized on the possibilities within their inherited syntax and aligned it more with the Punic word order. The inherited Indo-European word order was not really fixed, SOV only being the basic unmarked pattern. The system left much room for pragmatic and stylistic variation, so that a frequent move of the finite verb to the beginning of the clause, though perhaps making the utterance special (the speaker's intention!), would not make it ungrammatical or mistakable.

At what level would such an imitative manipulation be easiest? According to John Robert Ross's penthouse principle – "More goes on upstairs than downstairs" (Ross 1973: 397) – that would be the top level, i.e. the main clause or sentence level. Ross reformulates the Penthouse Priciple in the following non-metaphorical way:

---

116. The restriction to auxiliary and copular verbs does not hold for V1 conditional clauses either, which are typical for all Germanic languages – even Gothic shows V1 syntax in conditional clauses. Hence VO order has to be assumed to have been Common Germanic. (Patrizia Noel, p.c.)

"No syntactic process can apply only in subordinate clauses" (Ross 1973: 397). Put positively: Syntactic processes may apply in main clauses without necessarily affecting the subordinate clause. There is a crosslinguistic tendency for subordinate clauses to preserve older syntactic patterns (see Salaberri 2017: 233). Interpreted in relation to language change this implies that main clauses are more amenable to imitative manipulation than subordinate clauses. In the words of Vennemann (2003b):

> Man muss sich vielleicht den Übergang zur Verbfrühstellung nur auf der obersten Ebene des Satzgefüges (also im sogenannten "Hauptsatz") und, damit einhergehend, die Rechtsversetzung der Relativ- und Konjunktionalsätze als Nachahmung der als prestigehaft geltenden Satzplanung des semitidischen Superstrats mit ihrer Verbinitialstellung und immer rechts stehenden Subjunktionalsätzen vorstellen, die auf diese oberste, dem gewollten Eingriff am ehesten zugängliche Strukturierungsebene beschränkt blieb, während die untergeordneten Strukturen intern ihre alte präspezifizierende Anordnung behielten.
>
> (Vennemann 2003b: 358)
>
> ['Perhaps one has to picture the transition to verb-early placement only at the topmost level of complex sentences (i.e. in the so-called "main clause") and the concomitant rightward movement of relative and conjunction clauses as an imitation of the sentence structuring of the prestigious Semitidic superstrate with its verb initiality and right-hand positioning of subjunctional clauses. This imitation would be restricted to the topmost structuration level as the one most easily accessible to volitional manipulation, whereas the subordinate structures would internally maintain their old prespecifying arrangement.']

Needless to say, this proposal will be hard to underpin. But it is the only explanation that has not already been shown untenable. That the word order of one language can be changed in contact with another language is well known. This is consistent with situations that involve long-standing bilingualism, which often accompanies language shift scenarios (see Chapter 2 and e.g. Fishman 2001; Ross 2013: 37). Several cases are demonstrated in Vennemann (2015), but those are all changes caused by substrates of languages with the opposite basic word order. Yet also changes of word order caused by a superstrate language are on record, including cases of VO superstrates affecting the verb position of SOV languages. One case in point are certain Siberian languages which are all of the SOV type. In contact with their superstrate language, Russian, with its basic though flexible SVO order where SOV only occurs when the verb is in focus (cf. Kallestinova 2007: vii, 241–243; 239, 256–258), some Tungusic languages have given up a strict verb-final ordering (Pakendorf 2015: 720).[117]

---

117. We are grateful to Elena Skribnik (Munich) for drawing our attention to the contact relation between Siberian languages and Russian in her presentation "Variation und Typologie:

A similar observation has been made for the relation between SOV Quechua and its Spanish SVO superstrate. After describing and illustrating a number of morpho-syntactic influences of Spanish on Quechua, Sánchez (2003: 6) writes:

> There is also evidence of interference in a higher frequency of post-verbal objects in Bilingual Quechua. In (13) the object *achkita* 'doggy' is not focalized and thus should appear in pre-verbal position. In fact, it appears in post-verbal position:
>
> (13) Lamas Quechua
> *Abrasa-yka-n achk-ita-n-ta.*
> hug-DUR-3SG dog-DIM-3SG-ACC
> '(He) is hugging his dog.'

She also writes (2003: 37, n 14):

> SVO word orders are possible but rare in monolingual Quechua and Cerrón-Palomino (1987) notes that VO word orders in subordinate structures are ungrammatical, as shown in:
>
> (14) *[*Miku-sqa-n-ta tanta-ta*] *yacha-ni.*
> [eat-PAST-3SG-ACC bread-ACC] know-1SG
> 'I know (that) you ate bread' (Cerrón-Palomino 1987, p. 290)

These superstratal effects of Russian on Siberian languages and of Spanish on Quechua may be seen as support for our assumption that also the word order change from predominantly V-final pre-Germanic into predominantly V-initial Proto-Germanic is owed to the influence of a V-initial superstrate. What counts most in our view, however, is the fact that this assmption is not put forward *ad hoc* just in order to account for this specific development but follows naturally from, and integrates seamlessly into, our overarching theory of Germanic developing under a Carthaginian superstrate.

Returning finally to the "development of prepositions" mentioned as a major Germanic innovation by Ringe (2006: 295), we explain it exactly along the same lines: The placement of adpositions tends to be harmonious with the basic word order type of a language: Postpositions, as final heads in adpositional phrases, are characteristic of head-final (OV) languages; prepositions, as initial heads in adpositional phrases, are characteristic of head-initial VO languages.[118] Therefore,

---

Fall mongolische Sprachen" at the 5. Diskussionsforum Linguistik in Bayern: Variation und Typologie, University of Munich, 5–6 October 2015.

118. Cf. Greenberg (1966: 78–79): "*Universals 3*. Languages with dominant VSO order are always prepositional. […] *Universal 4*. With overwhelmingly greater than chance frequency, languages with normal SOV order are postpositional." SVO languages are "intermediate" and may have one or the other (usually prepositions) or both. See also the table of grammatical head categories and

if a language for whatever reasons changes from verb-late to verb-early order new adpositions will naturally originate in front of their noun phrases, and old postpositions may increasingly be used as prepositions by analogy (see Kienast 2001: §162.6, who suggests that some prepositions in Semitic go back to older postpositions). Furthermore, the Punic superstrate language offered an unexceptionable model: Being a rather consistent head-initial language, Phoenician and Punic, like all Northwest Semitic languages, had only prepositions (Friedrich & Röllig 1999: §§250–256; O'Leary 1923: §158; Kienast 2001: §§343–344).

The change from postpositional to prepositional use of adpositions was, like that from V-late to V-early, a drawn-out process: Even in Old English most adpositions could still be post-posed (see Mitchell 1985: §1062; Mitchell & Robinson 2012: §213), whereas in Middle English this arrangement is rarely found outside poetry (Mossé 1968: §169), and in thoroughly – though not consistently – head-initial Modern English not at all. In German with its verb-late placement in subordinate structures and preposable genitives new postpositions have originated throughout its history.

their typical dependent categories in Vennemann (1974: 345–346; 2003: 335). Concerning adpositions in Proto-Indo-European, we find what is to be expected in an SOV language: "Die einzelsprachlich Adpositionen entsprechenden Adverbien sind grundsprachlich ihrem Bezugswort nachgestellt" (Meier-Brügger 2010: §S 414) ['Adverbs corresponding to adpositions in the individual Indo-European languages follow their reference word'].

CHAPTER 7

The origin of the oldest Germanic writing system

In Chapter 1, we showed that there exists no workable theory of the origin of the oldest Germanic writing system, the elder futhark; more precisely: that the three major theories of runic origins, the Greek, Etruscan, and Latin Theses, do not provide answers to the eight essential questions raised in Chapter 1. In the present chapter we introduce a new theory, one which follows naturally from our general theory of prestratal Phoenician influences in Proto-Germanic: the Punic Thesis. It says that the futhark originated as the Carthaginian (Punic) writing system applied to Proto-Germanic. It rests on the straightforward assumption that the Proto-Germanic people learned how to write from the West Phoenician traders exactly as the Greeks had done from the East Phoenician traders a few centuries earlier, i.e. through direct contact. We will show that the futhark started out as the classical Punic alphabet (cf. Figure 14, column 4), but was later in part adjusted to Late Punic developments. On this basis we receive answers to the eight questions raised in Chapter 1, and thus for the first time a theory of the origin of the runes that is viable, as it addresses the pivotal problems left unexplained by existing accounts.

The chapter begins by providing these answers. Afterwards we look at the runes again in a historical perspective, comparing early developments of the futhark to certain changes that occurred within the Punic writing system during the time we assume the Carthaginians to have exerted their influence in the early Germanic world, i.e. from the fifth to the second and possibly into the first century BCE.

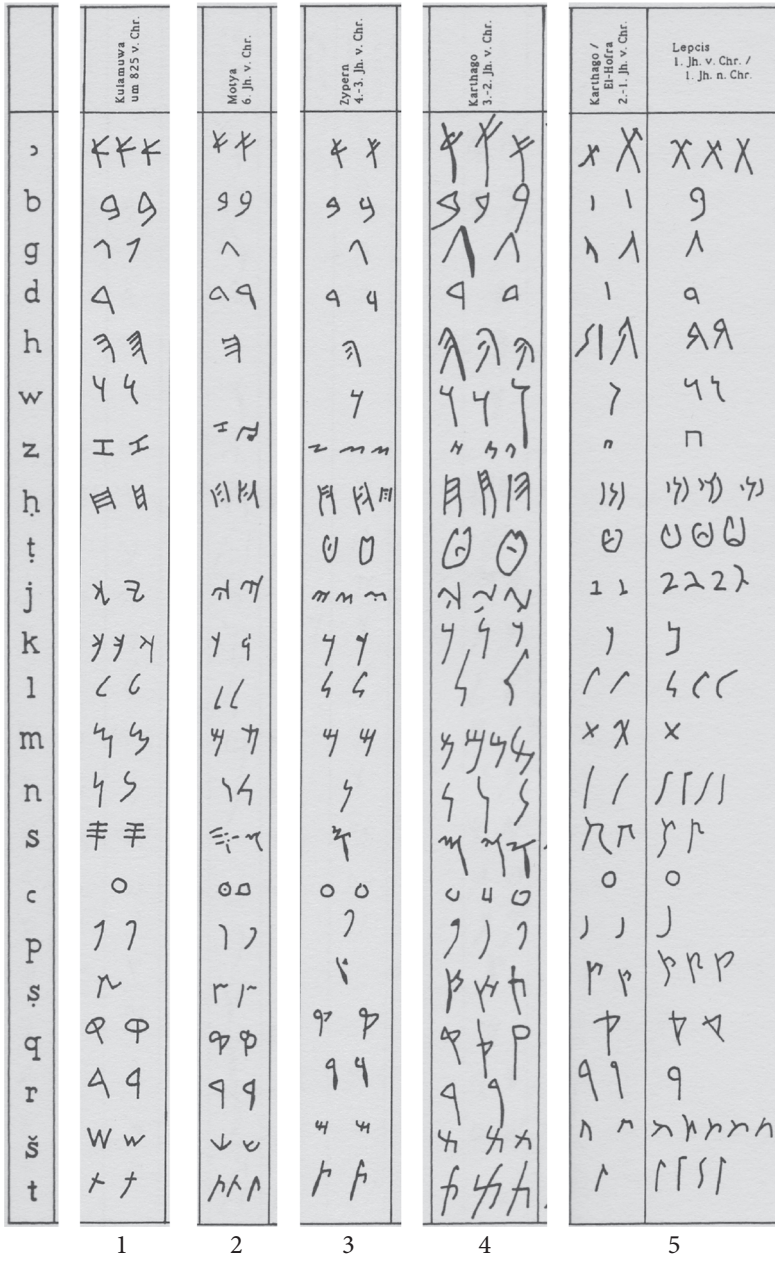


Figure 14. Phoenician and Punic letters. 1 old Phoenician, Kilamuwa stele, Zinjirli (Turkey), near the border of Syria, 9th c. BCE; 2 Phoenician, Motya, 6th c. BCE; 3 Phoenician, Cyprus, 4th–3rd c. BCE; 4 Punic, Carthage, 3rd–2nd c. BCE; 5 neo-Punic, North Africa, 2nd c. BCE – 1st c. CE (from Friedrich and Röllig 1999: Tables I–V)

1. The eight questions and their answers

1.1 Question 1

Why do the runes have names that are all common nouns with a meaning outside the writing system? More specifically: Why is the futhark semantically acrophonic?

Answer:
The runes have such names – i.e. the futhark is semantically acrophonic – in imitation of the Semitic system.

In Chapter 1 the principle of acrophony is explained, including its two types: phonetic acrophony and semantic acrophony. It is shown there that the futhark is semantically acrophonic. To recapitulate briefly: The futhark begins with ⁺*fehu*, ⁺*ūruz*, ⁺*þurisaz*,[119] ⁺*ansuz* which, besides being names of the runes **f**, **u**, **þ**, **a**, are appellative nouns with the meanings 'cattle, aurochs, giant, god', cf. Table 4 in Chapter 1. These names indicate the sound values of the runes they name by their phonetic onset, their initial sounds: ⁺*fehu* stands for the **f** rune, whose sound value is [f]; ⁺*ūruz* stands for the **u** rune, whose sound value is [u]; ⁺*þurisaz* stands for the **þ** rune, whose sound value is [θ]; etc. This manner of naming letters is called *acrophonic*. Since the names have a meaning over and beyond the alphabet (e.g. ⁺*fehu* does not only name the first rune of the futhark but also a class of farming animals, primarily [bovine] cattle), this manner of naming is more precisely called *semantic acrophony*.

By contrast, Greek *Alpha*, *Beta*, *Gamma*, *Delta* only name the first letters of the Greek alphabet and have no meaning outside the writing system. This Greek manner of naming letters is also called acrophonic, because the onsets of these names indicate the sound values of the Greek letters *A*, *B*, *Γ*, *Δ*, viz. [a b g d]. But in order to differentiate it from the Germanic way, it is more precisely called *phonetic acrophony*.

When transmitted further to Etruscan, Latin, and the modern languages, acrophony – and indeed any genuine kind of naming the letters – was given up entirely: When writing, we use the letters themselves as their names, e.g. "*A* and *B* are pronounced [ei] and [bi:] in English, but [a:] and [be:] in German." When speaking, the principle we follow is to refer to the letters by minimally suggesting their principal sound values, as in English [ei bi: si: di: i: ɛf] for *A B C D E F*, etc.

Clearly, the semantic acrophony of the names of the runes remains unexplained by the three traditional theses of runic origins. That leaves us with the fourth theory, the Punic Thesis. As pointed out in Chapter 1, the Phoenician way of naming the

---

119. An alternative name, preserved in Engl. *thorn*, is ⁺*þurnaz* 'thorn'.

letters was semantically acrophonic: The first four Phoenician letters are reconstructed as $^{+}$*ʾAlp*, $^{+}$*Bet*, $^{+}$*Gaml*, $^{+}$*Dalt*; but since they have not been handed down to us, it is customary instead to use the Hebrew names *ʾAleph*, *Beth*, *Gimel*, *Daleth*, etc. That the Phoenician names were indeed nearly identical to the Hebrew ones is evident from the fact that the Greek names, borrowed from the Phoenicians, are quite similar to the Hebrew ones: *ʾAleph*/*Alpha*, *Beth*/*Beta*, *Gimel*/*Gamma*, *Daleth*/*Delta*. However, though phonetically similar, the Hebrew (and Phoenician) letter names differ in an important regard: Whereas the Greek letter names mean nothing outside the writing system, the Semitic letter names do have meanings in the real world: $^{+}$*ʾAlp*/*ʾAleph* means '(piece of) cattle', $^{+}$*Bet*/*Beth* 'house', $^{+}$*Gaml*/*Gimel* 'camel' (exact meaning uncertain, see Jensen 1969: 272), $^{+}$*Dalt*/*Daleth* 'door'. The principle of Semitic letter naming is semantic acrophony. Germanic writing thus shares this method of letter naming only with Semitic, not with any writing system in the Greek line of transmission. This answer to Question 1 supports the Punic Thesis. The alternative, i.e. that the runic alphabet stems directly from an Etruscan/Alpine, Latin or Greek alphabet but somehow reinstated semantic acrophony in exactly the same way as in Phoenician, seems very unlikely to us.

In addition, the correspondence between the Germanic and the Semitic manner of letter naming is even closer than merely being semantically acrophonic. All the names, not only the initial four, in both systems are nouns: They are exclusively appellatives in Semitic; in Germanic they are appellatives with three possible exceptions: (1) $^{+}$*ansuz* is the designation of any member of one of the two Germanic families of gods (Old Norse *áss*, *óss* [< $^{+}$*ǭss* < $^{+}$*ansuz*]), and hence a proper noun, but it could also be used in the appellative sense of 'god'; (2) *Týr* was the name of one particular god, but its plural (*tíwar*) too simply meant 'gods' (de Vries 1977: s.vv. *áss*, *Týr*); (3) $^{+}$*ingwaz*, in Table 4 (Chapter 1) glossed 'god of the fertile year', is of rather uncertain provenance; in the English tradition the reference is to the ancestor of a Danish genealogical line of kings, in Scandinavian to the members of such a line. Perhaps then the Germanic users of the futhark did not feel there to be any inconsistency in their list of letter names, taking them all simply to be ordinary nouns.

This perfect (or near-perfect) categorial consistency is not a matter of course. It has been suggested to us by a colleague that the Germanic alphabet users may have invented their method of naming simply for mnemonic reasons, e.g. in teaching the futhark. And it is indeed well known that the association of nouns with the letters is a didactic device for teaching children the order of the alphabet, as in the following poem:

Tom Thumb's Alphabet (Walter 1919: 31)

A was an archer, who shot at a frog;
B was a butcher, he had a great dog;
C was a captain, all covered with lace;
D was a drunkard, and had a red face;
E was an esquire, with pride on his brow;
F was a farmer, and followed the plough;
G was a gamester, who had but ill luck;
H was a hunter, and hunted a buck;
I was an innkeeper, who loved to carouse;
J was a joiner, and built up a house;
K was King William, once governed this land;
L was a lady, who had a white hand;
M was a miser, and hoarded up gold;
N was a nobleman, gallant and bold;
O was an oyster girl, and went about town;
P was a parson, and wore a black gown;
Q was a queen, who wore a silk slip;
R was a robber, and wanted a whip;
S was a sailor, and spent all he got;
T was a tinker, and mended a pot;
U was a usurer, a miserable elf;
V was a vintner, who drank all himself;
W was a watchman, and guarded the door;
X was expensive, and so became poor;
Y was a youth, that did not love school;
Z was a zany, a poor harmless fool.

But such alphabet poems are in no way intended to *name* the letters. Children are not expected, in fact are not allowed, to spell, e.g., *Tom* as *Tinker – Oyster – Miser*; the way to spell *Tom* aloud is [ti: ow ɛm].

Colleagues have also reminded us of modern "telephone alphabets" which have been invented for use under difficult technical conditions. But we do not see any strong argument in this comparison either. First, spelling words aloud is very important in the English-speaking world, e.g. in the classroom and also in spelling contests. No semantically acrophonic English letter names have been invented for these purposes. "Telephone alphabets" have only been, and are still being, designed for modern technical kinds of text transmission, conditions that did not exist in prehistoric or early historical times. Second, "telephone alphabets" are categorially less restrictive than the Semitic and Germanic systems of letter names. To be sure the use of appellative nouns in most of them, for various languages, is quite

common. Yet e.g. the 1916 U.S. Army spelling alphabet went *Able Buy Cast Dock Easy Fox George Have Item Jig King Love Mike Nap Opal Pup Quack Rush Sail Tape Unit Vice Watch X-ray Yoke Zed*, freely mixing proper nouns, names, verbs, and adjectives. Even the NATO phonetic alphabet, dating from 1955, mixes appellative nouns with various kinds of names: *Alpha Bravo Charlie Delta Echo Foxtrot Golf Hotel India Juliet Kilo Lima Mike November Oscar Papa Quebec Romeo Sierra Tango Uniform Victor Whiskey Xray Yankee Zulu*.

German language "telephone alphabets" on the contrary use personal names. Yet they eke the list out with other kinds of name and with appellatives where no personal names seem available (*Nordpol* 'North Pole', *Zürich* 'Zurich', *Ypsilon* '(letter) Y', *Quelle* 'source, spring'), as in the following Austrian telephone directory alphabet: *Anton Berta Cäsar Dora Emil Friedrich Gustav Heinrich Ida Julius Konrad Ludwig Martha Nordpol Otto Paula Quelle Richard Siegfried Theodor Ulrich Viktor Wilhelm Xaver Ypsilon Zürich Ärger Österreich scharfes-S Schule Übel*. – In view of this diversity, the close categorial resemblance of the Semitic and Runic letter names is highly significant.

Possessing an inventory of letters named according to the principle of semantic acrophony (almost) exclusively utilizing common nouns is indeed something sufficiently extraordinary to require an explanation in each case. For the Germanic futhark we have just given an explanation: the application of the Semitic, viz. Canaanite writing system with all its specific properties to a new language, Proto-Germanic. But what about the Canaanite writing system itself? Its properties cannot be explained in the same way, because it was not transmitted to Canaanite but originated in the Canaanite world itself. There simply did not exist any language with a writing system similar to the Canaanite one that could have been transmitted to a Canaanite language.

The answer is found in the theory of the origin of the Canaanite writing system by adopting a selection of the Old Egyptian hieroglyphs (see the account in Jensen 1969: 246–271). These hieroglyphs originated in pictorial representations of concepts in a logography: A picture P representing a concept C was read as the word W denoting C. Since words associate phonetic patterns with concepts, such pictures, the logographs, came in part to be used as representing phonological patterns; and a subset of these were specialized merely to represent the initial speech sound of the word. Thus picture P for the word W with the meaning C became a symbol for a speech sound, the initial speech sound of W – a consonant, because all words in Egyptian, as in Semitic, begin with a consonant. E.g., the picture of a house, simplified to a rectangle with or without an opening (the door), first represented the concept of a house, then came to stand for the Egyptian word *p-r* meaning 'house' (vowels are not indicated and thus unknown), and finally the word-initial phoneme /p/; and the picture of an eye, simplified to just the bare outline of an eye

with a small circle in the middle indicating the pupil, first represented the concept of an eye, then came to stand for the Egyptian word *j-r-t* 'eye', and finally for the word-initial phoneme /j/.

Clearly the Egyptians had discovered, or invented, the principle of semantic acrophony, without however realizing that they might just as well forget all their hundreds of logograms except for the three dozen hieroglyphs acrophonically representing the consonants of the language. This idea apparently first developed on the Sinai Peninsula in a Semitic language environment dominated by Egyptian culture and economy and there led to the construction of an early version of the North Semitic alphabet called the Phoenician alphabet today.

Those Sinai Semites fully grasped the Egyptians' principle of semantic acrophony and developed their own alphabet accordingly. For a subset of the Egyptian hieroglyphs standing for the initial speech sounds of the words that named them, they proceeded as follows: For hieroglyph P, take the word that names it (i.e. the word W representing the concept C depicted by P), and translate it into Semitic; now make the resulting Semitic word W′ the new name of P and assign P a sound value by the acrophonic principle, irrespective of what P's sound value was in Egyptian. And so on, until you have a reservoir of hieroglyphs – of letters – sufficient to write your language.

We will illustrate this with the two examples used above following the definition of semantic acrophony. (1) Take the rectangle hieroglyph named *p-r* 'house', and translate its name *p-r* 'house' into your Semitic language; the result is the new name *bait* 'house' for the rectangle, and the sound value of this letter is now no longer [p] but [b], [b] being the initial speech sound of *bait*. (2) Take the eye hieroglyph named *j-r-t* 'eye', and translate its name *j-r-t* 'eye' into your Semitic language; the result is the new name *ʿayin* 'eye' for the eye hieroglyph, and the sound value of this letter is now no longer [j] but [ʕ], [ʕ] being the initial speech sound of *ʿayin* (Jensen 1969: 253).

The pictorial origin of our letters has now for the most part been obscured owing to nearly three thousand years of simplifying use. It is still best recognizable in our Greek-line capital A, which is an earlier ∀ turned upside down, which often happens in the history of writing systems. This ∀ is nothing but a diagrammatically iconic representation of the head of a bull or a cow or an ox, cf. Figure 15. And indeed, the Semitic name of the letter, *ʿAleph* in Hebrew, means '(head of) cattle'.

Figure 15. Letter a reflecting Semitic ʿAleph '(head of) cattle'

We will see immediately that translation based on semantic acrophony is indeed the method followed when the Punic alphabet was applied to Proto-Germanic, namely for its first four Phoenician letters, but no further because the meaning of the name of the fifth letter, He, as well as that of several of the following Semitic letters was lost and is still not known with certainty (Jensen 1969: 272), so that no translation of *He* into Germanic was possible. The remaining runes were therefore given names that were semantically acrophonic, but without attention to the Semitic names. As argued above, the chances that the semantic acrophony of the Germanic runic alphabet, especially with four successive matches in terms of meaning, could be an independent innovation, seems vanishingly small.

1.2 Question 2

Why does the runic alphabet (the futhark) begin with **f** rather than **a**?

Answer:
The Germanic alphabet adopters began by applying the semantic method of letter adaptation, based on the semantic acrophony of the Semitic letters, exactly as the Semites had done when deriving their alphabet from the Egyptian hieroglyphs; cf. Figure 16.

letter		name		meaning
ʔ	→	ʔaleph	→	'ox, (head of) cattle'
				↓
f	←	+fehu	←	'cattle'[120]

Figure 16. Deriving the **f** rune from the Punic letter ʔ

The explanation gets even better when we look at the shape of Punic 'Aleph, cf. Figure 17.

120. A more precise translation might have used a word such as German *Rind*, Old High German *hrind*, Old Saxon *hrīđ*, Old English *hrīþer* 'head of (bovine) cattle (ox, bull, cow, heafer)' < +*hrinþer*. However, since this word is only West Germanic (it is not attested in Gothic or in North Germanic), it may not have existed in Proto-Germanic and thus may not have been available for translating the letter Name *'Aleph*.

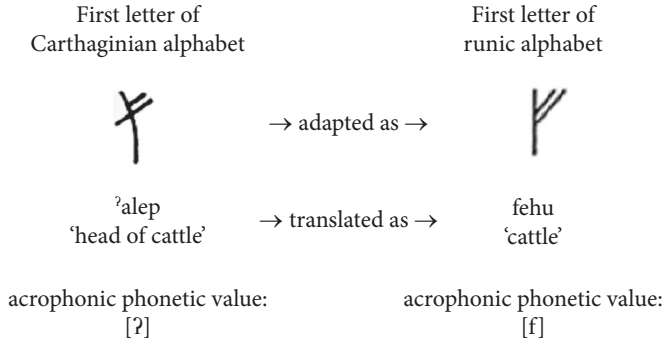


Figure 17. Deriving the shape and the name of the **f** rune from the Punic letter 'aleph

A specific reason for beginning the adaptation of the Punic alphabet to Germanic on a semantic basis rather than on a phonetic basis may have been the combination of two facts:

1. Adopting 'Aleph on a phonetic basis would have led to the glottal stop, [ʔ], which was not a phoneme in Germanic; hence the resulting letter would have been useless. Consequently, it seems unlikely that this is a plausible adoption – no Germanic alphabet to date has represented the glottal stop that many modern Germanic languages have at the beginning of stressed naked syllables. By contrast, in Semitic the glottal stop is a phoneme and is written everywhere it occurs even if it is not phonemically relevant.
2. Adopting 'Aleph on a semantic basis led to [f], which was extremely useful because Phoenician, including Punic, did not have an /f/ (at least not until it developed /f/ from /p/ in Late Punic), and hence did not offer a letter for the immensely frequent Germanic phoneme /f/.

1.3 Question 3

More generally, why does the runic alphabet (the futhark) begin the way it does, with **f u þ a**?

Answer:
The first five letters of the Punic alphabet are *ʔ*, *B*, *G*, *D*, *H*, i.e. 'Aleph, Beth, Gimel, Daleth, He; cf. Figure 4.

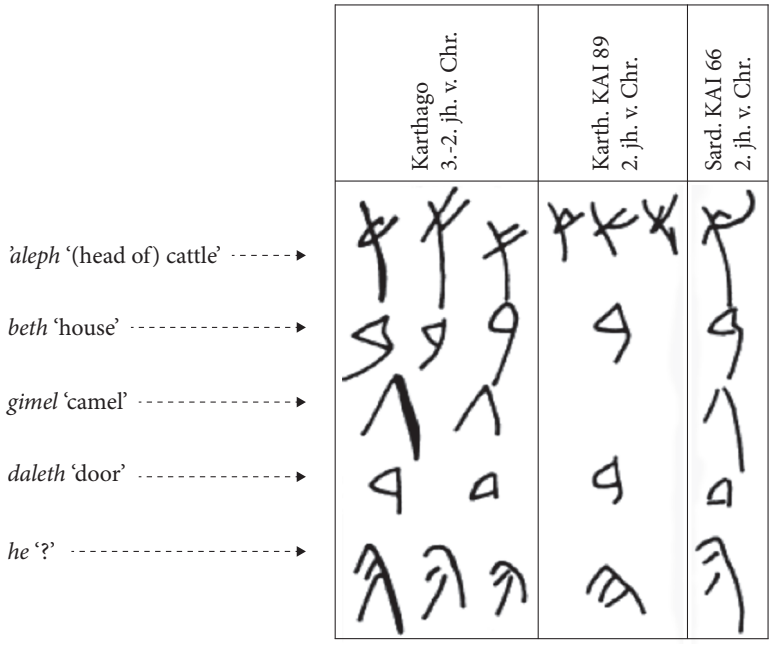


Figure 18. The first five letters of the Punic alphabet (Friedrich & Röllig 1999: 277 (table IV))

Of these, 'Aleph and He could simply be adopted to write Germanic /f/ (cf. Question 2) and [ē]. The mediae /b g d/, the voiced plosives, weakened in Late Punic, first into fricatives /β γ ð/, then, in the case of /b g/, further into semivowels, /ʋ, ɯ/ (see Vennemann 2013b with references).

This weakening created a problem for the adaptation, or for the use in the course of time, of the letters *B G D*. These letters did not only stand for the single mediae /b g d/, the voiced plosives, later their weakened reflexes /β γ ð/ and /ʋ, ɯ, ð/, but also for the geminates /bb gg dd/; one will remember the Punic writing rule, adopted into runic writing, that geminate consonants /CC/ were spelled with a single <C>. Other than the single mediae the geminates did not weaken; they probably lost some of their length but remained plosives (Friedrich & Röllig 1999: §97). Thus, the Germanic writers were faced with the problem that the sound value of a *B* could be /β/ and /bb/, that of a G, /ɯ/ and /gg/, and that of a *D*, /ð/ and /dd/. We do not know how far this Punic media weakening had progressed at the time the Germanic people began writing with the Punic letters, whether they first wrote *B G D* for the plosives, making the sound-value adjustments as the weakening progressed, or whether *B G D* stood for the weakened variants from the beginning. But one conclusion is inevitable: The adaptors of the Punic system must have been

aware of the dual phonetics of the letters *B G D* in Punic; this is evident from the shape of the runes for the Germanic mediae /b g d/, as we will see farther below.

1.3.1 *Punic B /b/, late Punic B /ʋ/*

The closest counterpart to the labial semivowel /ʋ/ on the Germanic side was labio-velar /w/. The letter *W* held the sixth position in the Punic alphabet and hence also in the original futhark. When /b/ changed into /ʋ/, its letter *B* moved in the futhark to the position that *W* had held earlier on, and its shape was made to abide by the runic constraint "No curved lines!", cf. Later, when the **r** and the **k** runes were interposed, the **w** rune, with the runicized shape of Punic *B*, wound up in the 7th futhark position.

B [w] → w

Figure 19. Letter B adopting the sound value and position of /w/

We would like to point out here that mirror imaging of letters is a common kind of modification. In runic writing, the orientation of letters was, furthermore, to a large extent made to agree with the direction of writing, which was horizontal but could be left-to-right (LTR, sinistrodextral) and right-to-left (RTL, dextrosinistral) as well as alternating (boustrophedonic); the line orientation could, furthermore, be downward and upward. – Handbook tabulations regularly show the left-to-right orientation of the runes.

1.3.2 *Punic G /g/, late Punic G /ɰ/*

The velar semivowel /ɰ/, the sound value of the Late Punic letter Gimel 'camel', could not be used as such. But it seems to have been sufficiently similar to labio-velar [ų̯], and hence to the vowel [u], to be adopted as a vowel letter, **u**. For a semivowel letter to be adopted as a vowel letter is nothing unusual: In Greek, the Phoenician semivowel letter *Y* was adopted as the corresponding vowel, *I* (Iota); and the Phoenician letter *W* was first used to represent the Greek phoneme /w/, namely as digamma, *F*, then taken over again (as *Υ*, *U psilon*, *Y psilon* 'plain *U*') to represent the vowel phoneme /u/.

It is also conceivable that a semantic factor played a supporting role in the adaptation of the Gimel letter as **u**: The Germanic people did not know camels; the closest equivalent in the Germanic world to this very large and hunch-backed semi-domesticated animal was the aurochs, Germanic $^{+}$*ūruz*. As this became the

name of Gimel in Germanic, its sound value had to become [u] by the acrophonic principle.

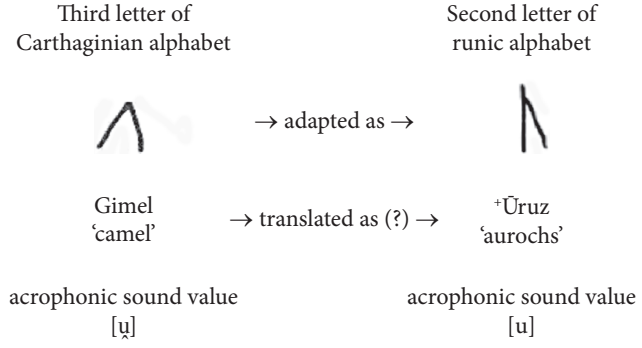


Figure 20. Deriving the shape, the sound value, and the name of the **u** rune from the Punic letter Gimel

1.3.3 *Punic D /d/, late Punic D /ð/*

As for the Punic letter Daleth, it was first adopted semantically by translating the word *daleth* 'door' into Germanic, which yielded +*dur-i-* 'door', +*dur-a-* 'door' (German *Tür* 'door', *Tor* 'gate', Engl. *door*). According to the acrophonic principle, the sound value of the resulting +*dur-* rune had to be /d/ – the same value as would have been assigned to the letter D on a phonetic basis. This may be one of two reasons that from here on the Punic alphabet was adapted by applying the phonetic rather than the semantic principle, the other being the fact that the next letter, He, was the first of quite a few whose Semitic meaning had been lost, cf. Jensen (1969: 272–273), Vennemann (2006c: 395). Then the sound value of Daleth in Punic began to weaken from /d/ to the corresponding fricative /ð/ as part of the general weakening of the series of mediae into a series of fricatives (and in part further into semi-vowels), /b g d/ > /b g ð/. As a consequence, the name of the rune could no longer begin with /d/ but had to begin with the corresponding fricative. Since there was no /ð/ in Proto-Germanic, at least not in word-initial position, the phonetically most similar phoneme +/θ/, i.e. Thorn, *þ*, was substituted, and a new, acrophonically suitable name was given to this **þ** rune, by minimally changing the *dur-* of +*dur-i-*, +*dur-a-* 'door' into *þur-*, namely +*þurisaz* 'giant' in Scandinavian and +*þur-n-az* 'thorn' in Old English, cf. Figure 21.

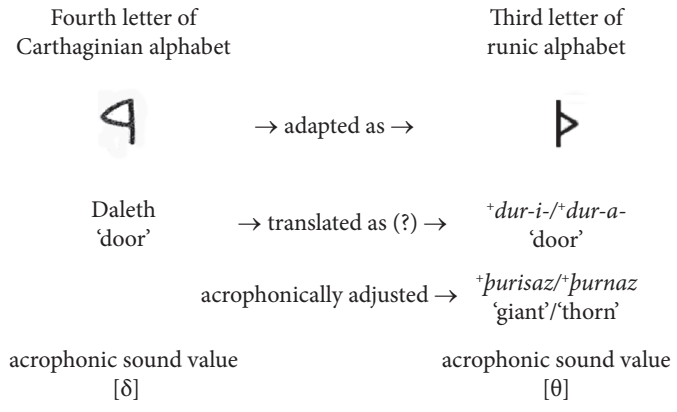


Figure 21. Deriving the shape, the sound value, and the name of the **þ** rune from the Punic letter Daleth

1.3.4 *Punic he*

As for Punic He, the fifth letter of the Punic alphabet, pronounced [hē] (at least in Hebrew), it was naturally adopted into the original futhark as [ē]. Germanic did not yet possess a phoneme /h/ but only the $^{+}$/χ/ developed from Proto-Indo-European $^{+}$/k/ (and palatal $^{+}$/k^{j}) by Grimm's Law, $^{+}k > {}^{+}x > {}^{+}\chi$, only later positionally > *h*. Proto-Germanic $^{+}\bar{e}$, so-called $^{+}\bar{e}_1$, became $^{+}\bar{a}$ in North and West Germanic in a very early unconditioned sound change. Consequently, the original $^{+}$**e** rune changed its sound value to [ā], thus becoming the **a** rune of the historical futhark, without changing its shape.[121] This is a common process. For instance, in English the principal sound value of the letter *e* has changed from [e:] to [i:] in the Great Vowel Shift without any modification of the shape of the letter.

---

121. Vowel quantity was not expressed in runic writing. But it must be remembered that when a vowel is focused, e.g. pronounced in isolation, in a quantity language, it can only be pronounced as long, the minimal pronounceable unit in a quantity language being bimoric, i.e. one minimal foot (cf. Vennemann 1995: 193 *et passim*). The vowel runes could only indicate vowel qualities, not quantities. This is not different from what happened in the Greek and the descendent alphabets. – Unfortunately, there exists no independent Gothic runic tradition; the less than a dozen runic inscriptions that are – never uncontroversially – considered Gothic are written in the elder futhark. Had there been an independent tradition we would have a test for the above hypothesis concerning the origin of the $^{+}$*ansuz* rune: The proto-runic $^{+}$**e** rune should have kept its sound value because PGmc. $^{+}$/ē/ ($\bar{e}_1$) did not undergo the change into $^{+}$/ā/ in Gothic. The fact that the name of the Wulfilian letter *a* is rendered *aza* in the Salzburg Alcuin manuscript (Arntz 1944: 191) proves once again that the Goths – if they used runes at all – simply availed themselves of the futhark.

In the case of the name of the Phoenician letter He, there could not be any contribution or interference from semantic acrophony because the meaning of this name had long been forgotten. As a matter of fact, the name of the original runic $^{+}$**e** reflex of the He letter is unknown. When $^{+}\bar{e}$ changed to $^{+}\bar{a}$, the name of the rune changed so as to begin with [a] according to the acrophonic principle, and for reasons unknown this name was $^{+}$*Ansuz*, the designation of any of the gods of the Aesir family of deities. Cf. Figure 22.

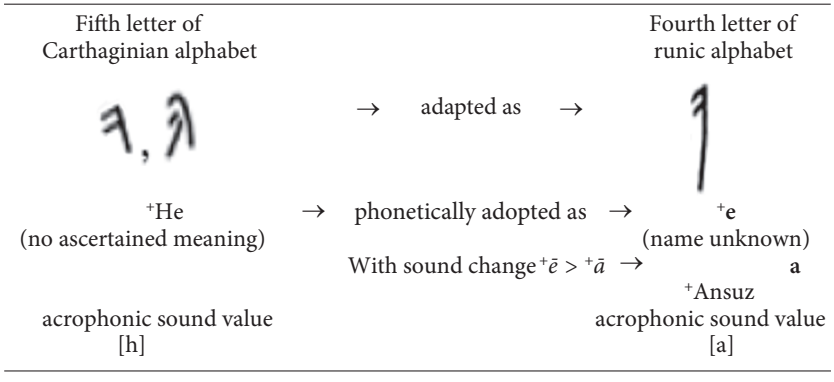


Figure 22. The adoption of Punic he into the futhark as proto-runic $^{+}$**e,** runic **a**

We would like to emphasize that the **a** rune tells us more than its own origin: It teaches us that the futhark was not created in the form of its actual attestations but that it evolved, i.e. that it has to be studied as an historical object, with a prehistory which for the most part still awaits discovery. In particular we learn from the origin of the **a** rune that the futhark was created at a time when the letter *e* of the source alphabet could still be adopted with a sound value of [e], i.e. before long ^{+}e was changed into long ^{+}a in the North and West Germanic branches, and that means: in the Proto-Germanic period (about 300 BCE).

1.3.5 *Summary of answer to Question 3*

Our answer to Question 3 (and Question 2) is summarized pictorially in Figure 23: *ʔ* → **f**, *B* → zero (actually: coalesced with *W*), *G* → **u**, *D* → **þ**, and *H* → $^{+}$**e** > **a**. Perhaps the very shape of the letters, plus the order in which they occur at the beginning of their alphabets, would have been sufficient to prove our point, which is that the futhark simply *is* the Punic alphabet, applied to Proto-Germanic.

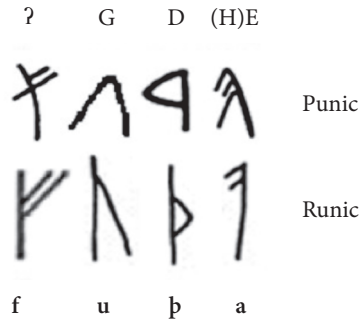


Figure 23. Four of the first five letters of the Punic alphabet and the first four letters of the futhark in the order in which they occur in their alphabets

1.4 Question 4

Why do the rune carvers usually write single consonants for geminates, even across word boundaries?

Answer:
Because that was the Phoenician custom throughout Phoenician history (see e.g. Hackett 2004: 370), and this practice was simply adopted into the Germanic writing system.

1.5 Question 5

Why do the rune carvers usually not write nasal consonants before consonants?

Answer:
Because that was the Phoenician custom throughout Phoenician history (see e.g. Hackett 2004: 370), and this practice was simply adopted into the Germanic writing system.

1.6 Question 6

Why are there runes for the semivowels, *w* and *j*?

Answer:
The Phoenician alphabet contains letters for both *w* and *j*, cf. Figure 14 above. They were simply taken over into the futhark, cf. Figure 24. The shape of the **w** rune may have been influenced by the Punic letter *B*, whose sound value had merged with the sound value of *W*, as pointed out in our answer to Question 3 above. The Punic

letter *J* and the **j** rune share a remarkable point of similarity: They are the only letters in their respective writing systems that consist of two parts.

Figure 24. Punic W and runic **w**; Punic J and runic **j**

1.7 Question 7

Why is there a rune for the non-phonemic [ŋ]?

Answer:
This rune, named the +*ingwaz* or *Ing* rune, occurs once written as a circle with diacritic tails (Opedal rune stone, Norway), once as a square (Kylver inscription), but usually as a diamond (cf. Figure 25). To adherents of the traditional three Theses of runic origins it is the most enigmatic: "Of all the 24 runes in the older *futhark* the *ŋ* rune is by far the most disputed one" (Odenstedt 1990: 103). The reason is obvious. The form, to be sure, can be traced to all three traditionally assumed source alphabets. All three shapes in Figure 25 express the same pictorial idea: that of a closed shape formed with a single line, the geometrical ideal of which is the circle. This becomes evident when we apply to this ideal the two fundamental stylistic constraints of rune shaping, which, according to many specialists, both derive from the technique of carving runes on wood tablets. The first has already been cited, cf. our answer to Question 3 above: "No curved lines!" The circle obviously violates this constraint, while the square and the diamond abide by it. The second constraint demands: "No horizontal lines!" This constraint is violated by the square, whereas the diamond satisfies it. Thus, only the diamond is a well-formed rune among the three shapes in Figure 25, which explains why among the three basic shapes of the **ŋ** rune, the diamond is the only recurring one in the elder futhark. All three shapes in Figure 25 represent attempts to express the idea of a circle by runic means, but only the diamond is a truly successful runic rendition of this idea. It *is* the runic circle.

Figure 25. Three shapes of the *ŋ* rune

No doubt then that the **ŋ** rune is not, as has been suggested (Arntz 1944: 47), a Germanic invention. At least its shape is nothing original but adopts the circle

letter as it occurs in all the Mediterranean alphabets. The problem for the three traditional Theses begins when trying to explain the sound value of this adopted circle letter in the futhark, given that none of the relevant alphabets has a symbol for the velar nasal (Arntz 1944: 47). The sound value of the circle letter *O* in Greek is the vowel [o]; the letter became a vowel letter in the Greek alphabet in the same way as the Phoenician consonant letter ʿAleph there became the vowel letter *A* with the sound value [a], and He the vowel letter *E* with the sound value [e], namely by ignoring the initial so-called "laryngeal" and applying the acrophonic principle to the remaining phonetic string, which must have been perceived by the Greeks as beginning with an [o]-like vowel. Later the *O* letter was passed on with this sound value from Greek to all ancient and modern European languages, including Etruscan (attested only in so-called model alphabets, as Etruscan had no phoneme /o/) and Latin. The problem is that there exists no path, phonetic or otherwise, from [o] to [ŋ]. Indeed, the very different sound value of the circle letter in the Greek alphabet line, together with the fact that the Ing rune's most common shape, the diamond, at face value made it look different from an ordinary curved circle, had the consequence that no runologist even went so far, to our knowledge, as to say that the Ing rune was the Greek or Etruscan or Latin circle letter, albeit with an inexplicable sound value.

All problems associated with the Ing rune vanish when looked at within the Punic thesis. We reach our conclusion in the following eight steps.

1. We begin by noting that the sound value of the circle letter ○ in Phoenician is a consonant, as is true for all Semitic letters. That is phonetically a better correspondence with the ᛝ rune than are the [o]'s of the three traditional Theses' alphabets, and looks like a promising beginning.
2. The circle letter's name in Hebrew is *ʿAyin*, and its sound value there probably was /ʕ/, a voiced pharyngeal fricative (Lipiński 2001: §19; Kienast 2001: 20.3, 21.5–21.6, Table 4; Jenni 1981: 28). It is unknown what exactly its sound value was in Phoenician (Friedrich & Röllig 1999: §15, 30–31). The literature seems to assume that it was not different from Hebrew, even though it was weakened and lost in Late Punic (e.g. Kienast 2001: 26–28; Krahmalkov 2001: 24). We can also look into closely related Arabic which inherited what is probably the same speech sound, called *ʿAin*, likewise a voiced pharyngeal fricative. Probably therefore Phoenician /ʕ/ and Germanic [ŋ] shared other phonetic properties, besides being consonants: They were both continuants, and they were both voiced:

Semitic	○	ʿAyin	/ʕ/	(voiced pharyngeal fricative)
Germanic	◇	Ing	[ŋ]	(voiced velar nasal)
Greek	O	omikron	/o/	(vowel)

This already makes Phoenician ○ a likelier candidate for being the source of the Ing rune than the Greek, or Greek-derived, *O*. But there is more to it.

3. In Arabic, the sound value [ʕ] of the letter ʿAyn is often pronounced with nasalization (Kästner 1981: 49; Hetzron 1969).
4. The phonetic similarity between [ʕ] and [ŋ] is evident from the fact that one Hebrew-English dictionary transliterates Hebrew ע as *ⁿg* (Wigram 1996: xviii).
5. Some teachers of Hebrew and Arabic advise students who do not master the pronunciation of ʿAy(i)n, for a transitional period to substitute [ŋ]. Here are two witnesses in one quotation:

> G. von der Gabelentz [(1891)] – who united many of the qualifications of the theoretical and the practical linguist – … advises the beginner in Arabic who cannot pronounce … *ʿēn* [i.e. ʿAyin, R.M./T.V.] to substitute [ŋ] – a sound which does not occur in Arabic, and therefore cannot be mistaken for anything but a substitute for *ʿēn* (Gab[elentz 1891:] 75). Before I saw Gabelentz' book I had hit on the same device. (Sweet 1900: 35)

   This pedagogical advice is not supported by every teacher of the language. But even explicit opposition to it provides indirect confirmation of the reality of the mispronunciation of ʿAyin, in particular the Arabic ʿAin, as [ŋ], as in Wright's *Grammar of the Arabic language*:

> [ʿAin, the Hebrew ʿAyin] is a strong (but to [most] Europeans, as well as Turks and Persians, unpronounceable) guttural. … It is described as produced by a smart compression of the upper part of the windpipe and forcible emission of the breath. It is wrong to treat it, in any of the Semitic languages, as a mere vowel letter, or (worse still) as a nasal *n* or *ng*. (Wright 1896: 6)

   Needless to say, a teacher's no-no presupposes precisely what his admonition is supposed to prohibit: Clearly Professor Wright (1830–1889) was in his days confronted with exactly these two mispronunciations of Arabic ʿAin and Hebrew ʿAyin by his students, as a vowel and as a nasal. We may safely conclude that the Ancient Greeks and the Early Germans were simply the first offenders, the former substituting a vowel, the latter the velar nasal.
6. The phonetic affinity of ʿAyin and the velar nasal is further evident from the fact that "in some historical Sephardi and Ashkenazi pronunciations, ʿayin represented a velar nasal ([ŋ]) sound, as in English ***singing***."[122]
7. There exist varieties of Hebrew in which ʿAyin has become the voiced velar nasal by regular change:

---

122. Cf. the Internet site "Ayin" (https://en.wikipedia.org/wiki/Ayin, 26 April 2018).

> ['Ayin] is realized as [ʔ] or zero by all of the European communities, with the exception of those of Italy and the Dutch-Portuguese of Amsterdam. The latter communities have a voiced velar nasal, [ŋ] – the sound of *ng* in the English word 'king' – as the realization of ['Ayin].
>
> (Berenbaum & Skolnik 2007: vol. 16, p. 555)[123]

8. We mention as a parallel that, in the Uigur and Yenisei variety of the Semitic-based Turkic "runic" script, and in the manuscripts found in Eastern Turkestan, the circle and the diamond, ⊙ and ⟐, are used to represent the velar nasal *ŋ* (Tekin 1968: 24–25, n 2).

We conclude from all this that when the Germanic alphabet adopters had to deal with the circle letter 'Ayin, they concentrated on those phonetic properties of the Punic speech sound which were most familiar to them, and those were the properties reminding them of their own allophonic [ŋ]. Thus, Punic ○ with the sound value [ʕ] but with allophonic properties of [ŋ] was adopted as runic ◇ with the sound value of [ŋ].[124]

1.8 Question 8

Why have most of the early runic inscriptions been found in Denmark?

Answer:
History knows of no special prehistoric or early historical contacts of Denmark with Greece, Italy, or the Alps, by-passing the huge Celtic, German, and Baltic territories in between. Thus, the three theories provide no answer to this question. However, for seafarers traveling from the Mediterranean around the Iberian Peninsula and through the Channel to pre-CE Germania, Jutland is a natural landfall and point of contact. It is at the same time the divide between the Baltic Sea and the German Sea where Baltic goods including the precious amber were carried by boat on fjords and rivers and across just a narrow strip of land for further shipment to the West, cf. Figure 26.

---

123. Cf. the interesting discussion on the website "Jewish-Languages Mailing List", www.jewish-languages.org/ml/200112.html, 5 December 2001, especially the contribution there by Professor Gideon Goldenberg (Jerusalem).

124. A more comprehensive survey of the traditional problems with the Ing rune and of the solution presented here, with references, may be found in Vennemann (2010). We would like to thank specifically Jason Collett (Cape Town) who, in an e-letter of 9 August 2009, was the first person ever, as far as we know, to point out the possible relevance of the Arabic and Hebrew [ŋ] pronunciations of 'Ain/'Ayin for the problem of the Ing rune; and to Professor Karl Reichl (University of Bonn) for drawing our attention to the ways *ŋ* is written in the Turkic "runic" scripts and the manuscripts found in Eastern Turkestan.

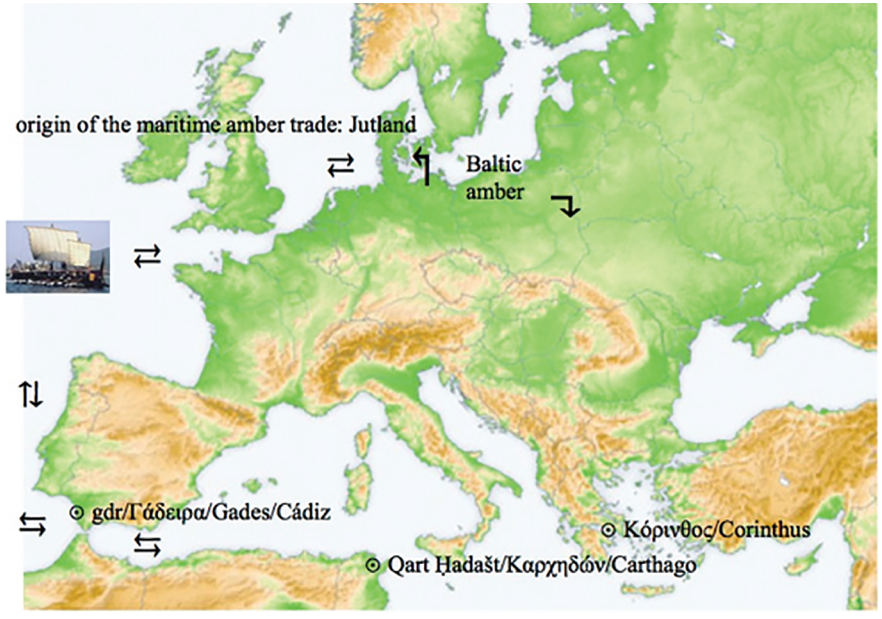


Figure 26. Denmark as destination of the maritime amber traders

The Phoenician seafaring traders were famous in the Greek world for dealing with jewellery, especially amber. In Homer's *Odyssee,*[125] Book 15, vv. 415–484, the swineherd Eumaeus tells Ulysses, whom he does not recognize, the story of his abduction from his home island Syra and transport to Ithaca by Phoenicians, arranged with assistance by a Phoenician woman whom one of them had seduced earlier on. The lengthy story reveals a lot about the opinions the Greeks held about the Phoenicians,[126] but it also contains in v. 460 the reference to amber jewellery:

ἔνθα δὲ Φοίνικες ναυσίκλυτοι ἤλυθον ἄνδρες, 415
τρῶκται, μυρί' ἄγοντες ἀθύρματα νηῒ μελαίνῃ. …
οἱ δ' ἐνιαυτὸν ἅπαντα παρ' ἡμῖν αὖθι μένοντες 455
ἐν νηῒ γλαφυρῇ βίοτον πολὺν ἐμπολόωντο.
ἀλλ' ὅτε δὴ κοίλη νηῦς ἤχθετο τοῖσι νέεσθαι,
καὶ τότ' ἄρ' ἄγγελον ἦκαν, ὃς ἀγγείλειε γυναικί.
ἦλυθ' ἀνὴρ πολύϊδρις ἐμοῦ πρὸς δώματα πατρὸς

125. For the text and translation cited here cf. Homer, *Odyssey*, Perseus Digital Library.

126. For which one may also compare Book 14, vv. 288f: δὴ τότε Φοῖνιξ ἦλθεν ἀνὴρ ἀπατήλια εἰδώς, / τρώκτης, ὃς δὴ πολλὰ κάκ' ἀνθρώποισιν ἐώργει 'Then there came a man of Phoenicia [a Phoenician man] well versed in guile, a greedy knave, who had already wrought much evil among men.'

χρύσεον ὅρμον ἔχων, μετὰ δ᾽ ἠλέκτροισιν ἔερτο. 460
τὸν μὲν ἄρ᾽ ἐν μεγάρῳ δμῳαὶ καὶ πότνια μήτηρ
χερσίν τ᾽ ἀμφαφόωντο καὶ ὀφθαλμοῖσιν ὁρῶντο,
ὠνον ὑπισχόμεναι: ὁ δὲ τῇ κατένευσε σιωπῇ.
ἦ τοι ὁ καννεύσας κοίλην ἐπὶ νῆα βεβήκει, …

'[415] Thither came Phoenicians, men famed for their ships, greedy knaves, bringing countless trinkets[127] in their black ship. … [455] And they remained there in our land a full year, and got by trade much substance in their hollow ship. But when their hollow ship was laden for their return, then they sent a messenger to bear tidings to the woman. There came a man, well versed in guile, to my father's house [460] with a necklace of gold, and with amber beads was it strung between. This the maidens in the hall and my honored mother were handling, and were gazing on it, and were offering him their price; but he nodded to the woman in silence. Then verily when he had nodded to her, he went his way to the hollow ship.'

Homer does not, unfortunately, report the way the Phoenicians gained the amber they traded in the Mediterranean world. But being ναυσίκλυτοι, 'men famed for their ships', it is quite likely that they, knowing the sea routes to the European Northwest, obtained it close to its area of provenance where it was most plentiful and presumably least expensive. Taking the valuable commodity to the Mediterranean by ship was undoubtedly safer than carrying it through the numerous tribal territories of an entire continent. The topic of the amber trade is taken up in more detail in Chapter 8.

This completes our answers to the eight Questions asked in Chapter 1. Reference to Late Punic developments in our answer to Question 3 opens up new questions, which will be addressed in the remaining sections of the present chapter.

127. English 'trinkets' may not be the best translation of *ἀθύρματα*, because it contradicts the *χρύσεος ὅρμος… μετὰ δ᾽ ἠλέκτροισιν ἔερτο* 'necklace of gold,… with amber beads… strung between' mentioned in v. 460. Greek *ἀθύρω* means 'to play', *ἄθυρμα* therefore means 'toy', also 'game, entertainment'. The translation of the plural as '(pieces of) jewellery' ('Schmucksachen', cf. Frisk 1973: s.v., 'ornements, parures', Chantraine 1990: s.v.) may have been coined in anticipation of the 'necklace of gold,… with amber beads… strung between'. Maybe something less specific than '(pieces of) jewellery', but not contradicting 'necklace of gold,… with amber beads … strung between' may be most adequate, perhaps 'delightful objects'.

2. The runes for the mediae, b g d

In the answer to Question 3 in Section 1.3, we showed that the sound values of the Punic letters transliterated *B*, *G*, *D* had changed from plosives to fricatives and in part on to semivowels, and that, as a consequence, their runic reflexes could not represent the Germanic mediae +/b g d/, but came to be used as runes (**w u þ**) for Germanic +/w u θ/. Clearly therefore, the Punic letters *B*, *G*, *D* were not, or no longer, suited to represent the plosive Germanic mediae +/b g d/ (stops at least in intial position) in the futhark. It seems that the originators or some early revisers of the runic alphabet noticed this problem and realized that they had to design a notation for the Germanic voiced plosives. And they did, for even the oldest recorded rune row, that of the Kylver stone of ca. 400 CE, contains runes **b**, **g**, **d** for the Germanic mediae.

The sound values of the **b**, **g**, **d** runes were different from those of Punic *B*, *G*, *D*. Furthermore, these runes occur in the rune rows neither in this order nor as an uninterrupted sequence, as do *B*, *G*, *D* in the Phoenician alphabet, but in the order **g**, **b**, **d** and at considerable distances from each other, namely respectively with the position numbers 7, 18, 23 (on the Kylver stone) and 7, 18, 24 (on the Vadstena and Grumpan bracteates). This second fact is evidence for a secondary origin of these three runes: **b** and **d** are positioned after **t**, the letter *T* marking the end of the original alphabet; and adding new letters at the end of the existing row is a well-known method for augmenting an alphabet.[128] Thus it seems that **b** was added earlier than **d**, because it comes right after **t**, while **d** follows much later. But this argument is not cogent, because many manipulations of the runic row are in evidence. As for **g**, a late addition is made likely by its standing next to **k**, which is itself positioned considerably earlier in the futhark (position 6) than in the Phoenician alphabet (position 11).

But the most disturbing fact concerns the shapes of these three runes, which have no recognized models in the Phoenician alphabet. This observation suggests looking for explanations in two directions corresponding to the following

---

128. The oldest western example is the Greek sequence of *Υ*, *Φ*, *X*, *Ψ*, and *Ω*, all of which were added after *T* which closed the inherited Phoenician Greek alphabet. In Swedish, the non-Latin letters, *å ä ö*, have all been added at the end of the Latin Swedish alphabet, as in the case of Danish and Norwegian *æ, ø, å* (John Ole Askedal, p.c.). The Modern German alphabet is the Latin one, ending with *z*; when the new and specifically German letters *ä*, *ö*, *ü* (the "umlaut vowels") and *ß* ("sharp s") are recited as part of the alphabet (usually they are omitted, and "officially" the recitation ends with *z*), they are added after *z*. Latin *Z* was itself not part of the original Latin alphabet but a new letter, taken over from Greek and placed at the very end of the alphabet, whereas in Greek it originally (before the elimination of digamma, *F*, for /w/) held position 7, the same as in Phoenician.

propositions: (a) The runes for the mediae are adaptations of Phoenician letters that have so far not been considered as possible sources. (b) The runes for the mediae were constructed from material and with strategies suggested by the futhark itself. We have tested both approaches and have found only a strategy based on proposition (b) successful.

The idea that some of the runes were created by modifying certain other runes is not new. As a matter of fact, runes were even changed without the desire to create new runes. For instance, the original shape of the **z** rune (Arntz 1944: 68), which looks like a runic version of the Phoenician letter *Z*, was subsequently simplified in two different but similar ways, cf. Figure 27.

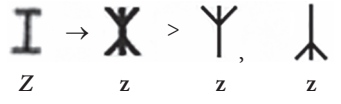
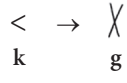


Figure 27. Derivation of the **z** rune from the Phoenician letter Z

To a person not knowing the history of this adaptation process, the older **z** symbol may well be considered a doubled version of the younger forms.

So, let us look at the **b**, **g**, and **d** runes with an eye to a possible doubling interpretation. We begin with **g** and **d**, because **b** offers the additional complication of a conflation of the sound value of *B* with that of *W* as these letters were integrated into the futhark.

If one looks at the **g** rune with the possibility of doubling in mind, it is easy to find runes of which it could be such a doubled version. Traditionally the **k** rune has been seen as a source of **g** in these terms (see e.g. Arntz 1944: §19), see Figure 28.



by doubling (?)

Figure 28. Derivation of the **g** rune from the **k** rune by doubling (?)

What makes this proposal attractive is the placement of the **g** rune next to the **k** rune, as if with perfect phonetic understanding of the relatedness of the two speech sounds designated by these runes. What makes the proposal less attractive is the fact that in all the old inscriptions the **k** rune is much smaller than ordinary size, whereas the **g** rune is from the beginning as large as possible within runic standards.

If **g** were just a doubled **k** placed next to it, they very likely would be of the same height.[129]

Let us, instead, as an alternative, consider the derivation of **g** from the **u** rune, which is itself, in the proposal made further above, an adaptation of the Punic letter *G*. Assuming that the alphabet adapters were aware of the origin of their **u** rune in a chain (*g* > *ɣ* >) *u̯* > *u*, then doubling of the **u** rune symbol appears as a perfect method of expressing a stronger variant along this weakening chain, cf. Figure 29. And if someone were to deny the alphabet adapters this degree of phonetic insight, all we have to do is to remind them of the fact that those alphabet adapters had enough phonetic understanding to place the symbol thus created next to the even stronger element on the same scale (*k* > *g* > *ɣ* > *u̯* > *u*), the **k** rune. The **u** rune used in Figure 29 shows the oldest shape, which occurs in all runic find regions (Arntz 1944: 66 with n 3).

Figure 29. Derivation of the **g** rune from the **u** rune by doubling

This analysis receives support from the tradional treatment of the **d** rune as a doubled version of the **þ** rune. Cf. Figure 30.

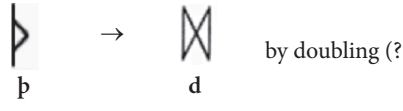


Figure 30. Derivation of the **d** rune from the **þ** rune by doubling

This account of **d** is in harmony with that of **g**: We saw earlier that the sound value of the Phoenician letter *D*, originally the voiced dental plosive *d*, had in Punic weakened into a fricative and was therefore adopted as a rune, **þ**, for the Germanic interdental fricative /θ/. Thus, doubling of the **þ** rune could be used as a method of indicating a stronger speech sound than what **þ** itself stood for, namely the *d* from which *θ* had been derived, so to speak.

The case of the **b** rune is more complicated but in the final analysis even more convincing. When the sound value of Punic *B* weakened into a fricative and further into a semivowel, it merged with the sound value of *W*. There was, therefore, no

129. We thank John Ole Askedal (p.c.) for drawing our attention to the possibility that the **g** rune "may be considered a case of normalization with respect to height."

use on the Germanic side for both letters. The two Punic letters were, furthermore, somewhat similar, cf. Figure 31.

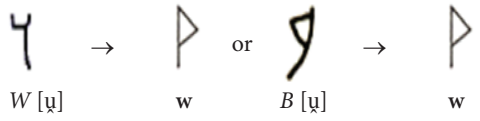


Figure 31. Derivation of the **w** rune from the Punic letters W and B

Yet *W* does not have a closed loop, or triangle, at the top, whereas *B* does. Apparently, what the alphabet adapters did was the following, a compromise: They assigned the letter *B* to Germanic ⁺/w/ and gave this **w** rune the position in the futhark that the letter *W* had in the Punic alphabet.

While the *B* letter offers a better pictorial model for the **w** rune than the *W* letter, the position of the **w** rune tells us that *W* too played a role in its origin: In the Punic alphabet, *W* is adjacent to *Z*, <*W Z*>. In the futhark, **w** is nearly adjacent to **r**, <**r k g w**>. But this **r** had traded places with **z** after the change of ⁺/z/ into /ʀ/ (by North and West Germanic rhotacism). Hence, before rhotacism the order was ⁺<**z k g w**>. We said "nearly adjacent" rather than "adjacent", because for unknown reasons **k** and **g** were placed between **z** (or the rhotic **ʀ** or the **r** with which **ʀ** was exchanged) and **w**. Before the interposition of **k** and **g**, this portion of the futhark read ⁺<**z w**>; i.e., **z** and **w** were indeed adjacent, differing from the model alphabet only by their relative order.

The source of the **w** rune is generally seen as mysterious (see e.g. Krause 1970:40). Our account offers the optimal explanation for the shape of the **w** rune – formal identity, given the stylistic constraints of runic letter shapes – while at the same time respecting its position within the futhark in relation to that of *W* in the Punic alphabet. Cf. Figure 32.

Figure 32. Derivation of the **w** rune from the Punic letters W and B

No doubt then that the **w** rune relates to the **b** rune as the **u** rune does to the **g** rune and the **þ** rune does to the **d** rune, viz. as weakened variant to unweakened source. The **b** rune should therefore appear as a doubling of the **w** rune, which is precisely what it does, cf. Figure 33.

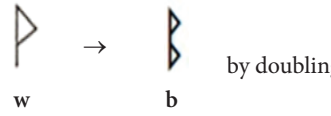


Figure 33. Derivation of the **b** rune from the **w** rune by doubling

This account of the **w** rune at the same time explains why there is no **b** rune in the initial futhark section **f – u þ a** which is otherwise a perfect adaptation of the Punic alphabet section *ʔ B G D H*: *B* and *G* had the same weakened sound value, [u̯], or at least sound values that were indistinguishable in a Germanic phonological perspective. Therefore only one of the two letters could be used in its own position. *B* was conflated with *W* in the **w** rune (cf. Figure 33), and *G* was left in its place (no. 3, but no. 2 in the futhark after the removal of *B*) with the fully vocalized sound value [u]. See also Figure 23 in our answer to Question 3 above.

3. The doubling theory: An additional argument

While the idea that some runes may be doubled versions of other runes is old, though it has never been applied as extensively and consistently as in the Punic Thesis; the question of how the idea to employ this device in developing the futhark arose in the first place, has not been asked in any of the traditional Theses. But it has been asked in the Punic Thesis. Here is the answer.

The Hebrew letters *B G D K P T* – the "*begadkefat* letters" – each had two sound values, the original plosive value and a positionally weakened, namely fricative, variant.[130] The weakened variants arose in post-vocalic positions, but with one major exception: Geminates remained plosives. Originally these variants were not marked but represented by the same original consonant symbols, including the geminates, which were written with the single letter; and this practice is still often followed today, especially when no ambiguity arises. But as methods of "punctuation" were invented to mark certain phonological properties of the language which the original bare consonantal script left unexpressed, chief among them notations for vowels, the dagesh dot was introduced to differentiate the plosive from the fricative pronunciation associated with the *begadkefat* letters (Jenni 1981: §2.3.2.3; Sáenz-Badillos 1997: 110–111).

Turning now to Punic, it seems that we have to assume the same positional variation of the sound values of the letters *B G D*, except that the weakening of

130. We are grateful to Professor Thomas Shannon (University of California, Berkeley) for the suggestion to compare the runic doubling to the use of dagesh in the writing of Hebrew.

the singleton plosives was more general than in Hebrew and in part even went beyond the fricative stage, as described above. In particular, we have to assume the exemption of geminate *begadkefat* consonants, in our case the geminate mediae, from this weakening. This is for instance the situation in many Berber languages, where singleton plosives became spirants while their geminate counterparts remained plosives (cf. Saib 1977: 310). In view of the fact that geminateness was not expressed in Phoenician writing, a writing rule that was taken over into Germanic (cf. our answer to Question 4 above), it follows that the Punic letters *B G D* each had two sound values: /bb gg dd/ as well as their weakened, fricative or even semivocalic, variants, /ʋ, ɥ, ð/, or, in a Germanic phonological perspective, /w, ų, ð/ (see Friedrich & Röllig 1999: §97 on geminates in Phoenician, Punic and Neo-Punic). In Punic itself this duplicity of values was innocuous; there single consonants and their geminates occurred in the same paradigms, gemination expressing membership in certain subcategories, exactly as in Hebrew (see Friedrich & Röllig 1999; see Krahmalkov 2001: 165, 167, 203, 209 for attestations of geminate mediae), so that the diverse sound values of *B G D* were probably felt to be related, and identical letters for the variants were only natural. Not so in Germanic; according to the general view, the voiced plosives were not related to fricatives or semivowels by any grammatical process, so that assigning one and the same letter to pairs such as *b* and *w*, *g* and *u̯*, and *d* and *θ* was out of the question. However, there was a compromise: Where Punic *B G D* represented fricatives, or something weaker, these sound values were singletons, but where they represented plosives, these sound values were geminates. Therefore, a natural solution to the problem was using the single letters as runes for the weak sound values, but doubled letters for the plosives, these always being geminates in Punic though usually not in Germanic.[131] This doubling could not, of course, be expressed by writing the basic runes twice; in Phoenician, and hence in Germanic, letters could only be written twice when – unexpressed as in Punic or expressed as in Germanic – a vowel intervened. The doubling could only be expressed in the basic rune itself, namely by merging the repeated rune, or the rune and its repeated distinguishing part, into a new single rune. This is precisely what we find, as shown above; see the summary in Figure 34.

131. Stephen Laker (Kyushu University, Fukuoka, Japan) adds the following comment: "I suppose it is not entirely clear whether they [i.e. the Punic geminates] were very long. Normally when there is no opposition in phonetic length, i.e. the singleton has become a fricative, the long plosive tends to become long by ambisyllabicity." This appears to have been the situation in Punic also (Friedrich & Röllig 1999: §97).

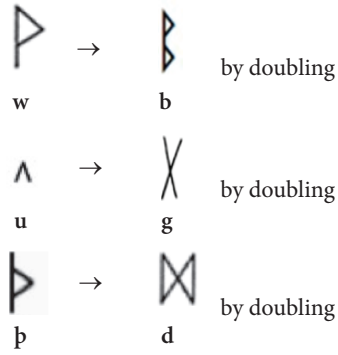


Figure 34. Origin of the **b**, **g**, and **d** runes according to the doubling theory

If this account of the origin of the runes for the mediae, **b g d**, is correct, it provides further support for the doubling theory for all three runes. It may also suggest that the doubling relationship between the **w u þ** runes and the **b g d** runes is probably not based on insights into the phonological concept of consonantal strength but rather on a bilingual understanding not only of Germanic phonology but also and especially of Punic grammar and writing, where consonantal singletons and their geminate counterparts were united in morphological paradigms and expressed by identical letters; cf. Figure 35.

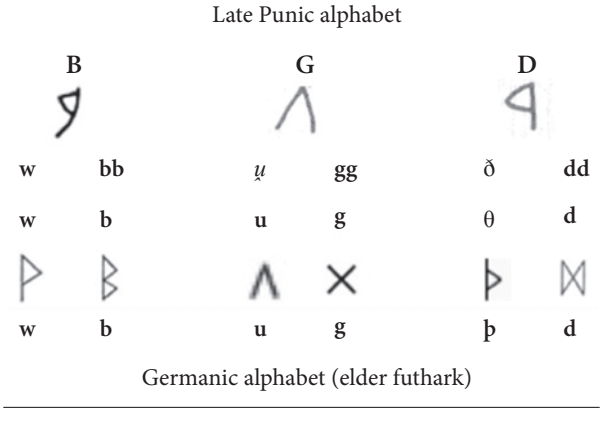


Figure 35. Origin of the runic mediae **b g d** in Punic morphology, phonology, and orthography

4. The doubling theory: A further application

The **p** rune has never found a satisfactory explanation in the traditional theories of the origin of runic writing, the Greek, Etruscan, and Latin Theses (see Arntz 1944; see also the explicit comment in Krause 1966). It will here be traced directly to the Phoenician alphabet in the Punic Thesis. – The **p** rune is shown in its basic shape in Figure 36.

Figure 36. The **p** rune (from the Kylver stone, cf. Düwel 2008: 2)

Figure 37 shows the Phoenician letter *P* which remained essentially the same throughout the history of Phoenician and Punic writing.

Figure 37. The Phoenician and Punic letter P

Adopting this letter into the futhark with its major constraint, "no curved lines", would yield a vertical staff and a horizontal branch, i.e. ᛚ or some mirror image; another major constraint, "no horizontal lines", would either lead to a sloping branch, which would have created a conflict with the **l** rune (see Arntz 1944: 45 who also thinks a formal merger between the l and p runes would have been problematic), cf. Figure 38.

Figure 38. *The* ***l*** *rune (Kylver style*)

Or it would break the branch and yield the shape in Figure 39 (or some mirror image).

Figure 39. Expected adoption of Punic P into the futhark (Kylver style)

Such breaking of a horizontal line is best known from the two forms of the **e** rune, cf. Figure 40.

ᛖ ᛗ

Figure 40. The two forms of the **e** rune

But the **p** rune does not have the expected shape as in Figure 38 either. What we find instead is the form shown above in Figure 36. How is this unexpected form to be explained?

An answer is suggested by a comparison of the **p** rune to the **b**, **g**, and **d** runes within the account given above and summarized in Figure 34. There, the forms of **b**, **g**, **d** are identified as "doubled" versions of the **w**, **u**, and **þ** runes, this doubling on the runic side corresponding to a geminate plosive versus singleton fricative or semivocalic pronunciation of *B*, *G*, *D* on the Punic side. We may thus wonder whether the adoption of letters for the tenues, the non-emphatic voiceless plosives, may have paralleled those of the mediae, i.e. whether the Punic letters transliterated as *P*, *K*, *T* likewise each represented both weakened singleton sound values and unweakened plosive geminate sound values, with corresponding consequences for their adoption into the futhark. The answer we find is Yes and No, namely Yes but with a fundamental difference: Whereas all three Phoenician letters for the mediae, *B*, *G*, and *D*, represented both weakened singletons and unweakened geminates in late Punic, only late Punic *P* represented a weakened, fricative variant, namely labio-dental *f*, except where it stood for the geminate, *pp*; but *K* and *T* always represented plosives, both the singletons, *k* and *t*, and the geminates, *kk* and *tt* (Friedrich & Röllig 1999: §37; Krahmalkov 2001: 23–26).

It follows that whereas Phoenician *K* and *T* had the same plosive interpretations as letters both for singletons and for geminates and could thus be adopted into the futhark to represent the plosives /k/ and /t/ without taking special measures, the same did not hold true for *P*. Rather, late Punic *P* stood for the fricative [f] when representing a singleton, but for the plosive [p], or [pp], when representing a geminate.

At this point the situation differs in two regards from that of the mediae: There letters for both the weakened and the non-weakened variants, [w u ð] and [b g d], were needed for the futhark, and they were represented by the single and the "doubled" runes. By contrast, the futhark could use the basic letters for *k* and *t*, without any "doubling", because singletones and geminates were all plosives, cf. Figure 41.

Figure 41. The **k** and **t** runes (from the Kylver stone)

But the letter *P* differed from both the letters *K* and *T* and the letters *B*, *G*, *D*: Unlike *K* and *T*, it represented a weakened singleton variant, but unlike *B*, *G*, *D* its weakened singleton variant [f] required no representation by *P*, because the futhark already had the **f** rune, the ⁺*fehu* rune, derived from the Punic ʿAleph by semantic acrophony. In consequence, the futhark could not use the "single" *P* as in Figure 39 but only the "doubled" *P* as in Figure 36: An ordinary *P* adapted as in Figure 39 would have been read as [f] by a person versed in Punic; in order to prevent this mis-reading and to guarantee a proper [p] reading, "doubling" of the letter was mandatory.

In conclusion, the **p** rune adapts the Phoenician *P* letter, but with rune-internal "doubling" to guarantee a correct plosive reading as for the late Punic geminate, and to prevent a wrong fricative reading as for the late Punic singleton. This explanation is only possible within a theory which derives the futhark from the Punic alphabet, rather than from the Greek alphabet or one of its derivatives.

5. More on the rune order in the rune rows

The arrangement of the runes in the futhark was nearly invariant from the earliest recorded rune row on the Kylver stone (ca. 400 CE) onward. Most of the fifteen futharks analysed in Düwel & Heizmann (2006) are incomplete, but there are only two rune pairs that do not occur in a stable order: {**ï p**} and {**o d**}. They are each found in both orders. The subsequence ⟨**ï p**⟩ occurs in four of the futharks, but the oldest one, that on the Kylver stone, has ⟨**p ï**⟩; and ⟨**o d**⟩ occurs twice, while again the Kylver stone contains the only exception, featuring the subsequence ⟨**d o**⟩. With only these two wrinkles, this is a remarkable degree of consistency extending over the two centuries from which the rune-row inscriptions stem that have so far been discovered (see Düwel & Heizmann 2006: 15).

Yet there is one disturbing aspect to this consistently handed-down rune order: It is different from all other known alphabets. The traditional Theses of runic origins have been much troubled by this futhark-specific order, which appears to be so very different from the order of the three "classical" alphabets they consider to be the source of the futhark. And from their perspective the difference is indeed disturbing: Greek *A*, *B*, *Γ*, *Δ*, *E* etc. for [a b g d e…], Latin – together with Etruscan – *A*, *B*, *C*, *D*, *E* etc. for [a b k d e…], all of them contrasting with Germanic **f**, **u**, **þ**, **a**, **r**, **k**, etc. for [f u θ a r k…].

The general view in the literature is that the order of the letters in the futhark appears drastically different from the source alphabets traditionally considered (Spurkland 2005: 5–6; Krause 1970: §7; Knirk 2002: 636; Seim 2007: 158, 159; Looijenga 2003: 101). The order of the runes has also been connected

to a non-traditional origin of the runes, which in this particular case means a non-Roman origin (Spurkland 2005: 6). We agree with the assessment that the order does not favour any of the traditional theses and that it favours our Punic thesis. However, we also think that the order of the runes does show significant overlap with the traditionally considered source alphabets.

To begin with, there is the pair {s, t}, which invariably occurs in the order ⟨ **s t** ⟩ both in the futhark and in the Mediterranean alphabets. Then there is the substring ⟨ **p z s t** ⟩ which, with rhotacism and exchange of **r** and **ʀ**, appears as ⟨ **p ʀ s t** ⟩ and, since *Q* was not adopted into the futhark, obviously reflects the alphabetic string ⟨ *P Q R S T* ⟩. Thus, there exists a substring of four letters which occur in the same order in the futhark as in all the Mediterranean alphabets. This is independent of any particular Thesis (Hempl 1898; accepted by Arntz 1944: 87). How high is the mathematical probability that this fact is a matter of chance? How often does one have chance-wise to arrange and rearrange the 24 runes until the four runes **p ʀ s t** are part of the arrangement (1) in this order and (2) located approximately where Latin *P* (*Q*) *R S T* are located in the Latin alphabet? We do not know, but we believe the probability to be very low.

There is another substring of the futhark that looks suspiciously "alphabetic": ⟨ **þ a** ⟩; cf. Figure 42.

Figure 42. The substring ⟨ **þ a** ⟩ of the futhark

The thorn rune **þ** resembles Latin *D* and Greek *Δ*, while the **a** rune looks similar to a Latin *E* and a Greek *E*;[132] and $^{+}\bar{e}$ is the main source of $^{+}\bar{a}$ in North and West Germanic. Thus, the futhark segment ⟨ ᚦ ᚨ ⟩, i.e. ⟨ **þ a** ⟩, preserves the alphabetic order of *Δ* and *E*, ⟨ *Δ E* ⟩, and of *D* and *E*, ⟨ *D E* ⟩ (Phoenician *D* and *H* [i.e. He], ⟨ *D H* ⟩).

There are more such suspicious correspondences. E.g., if the **n** rune, which obviously has been separated from its group which also contains **l** and **m** (cf. Greek ⟨ *Λ M N* ⟩, Latin ⟨ *L M N* ⟩, also Phoenician ⟨ *L M N* ⟩), is put back into this group, then the runic sequence ⟨ **h n i j ï** ⟩ changes back into ⟨ **h i j ï** ⟩, and that is, of course, precisely the order of Latin ⟨ *H I* ⟩. It is also the Greek and the Etruscan order if it

132. Phoenician He, the model for Greek *E*, for Latin *E*, and for runic **a**, has in Punic a variant with two rather than three twigs, cf. Figure 14.

is considered that the intervening letter, T^h, was not needed for Latin, which had only a single row of voiceless plosives: Greek/Etruscan ⟨ *H* T^h *I* ⟩ → Latin ⟨ *H I* ⟩.

These examples show that the order of the runes does show some matches to the traditionally considered source alphabets. However, there is at least one substring of the futhark that cannot be explained by the correspondences with Latin, Greek or Etruscan alphabets but only by the Punic Thesis. Truly dependent on the assumption of a Phoenician, actually a Punic and Late Punic, source of the futhark is our explanation of the initial string, ⟨ **f u** ⟩, also to some extent the immediate continuation ⟨ **þ a** ⟩. The derivation of **f** (rather than the expected **a**) from ʿAleph crucially depends, first, on the knowledge of the meaning of the Semitic letter name and, second, on the shape ʿAleph had attained in 3rd and 2nd century Carthage, cf. Figure 17 and Figure 18.

Next in the alphabet are the mediae, *B G D*. The facts that (1) *B* was not accommodated *in loco* but was moved to a later position within the futhark, (2) that *G* is reflected in the futhark as **u** which, as a consequence of (1), takes the second rather than the third position, and (3) that *D*, next in the alphabet, is reflected as a fricative, the **þ** rune, rather than a plosive, find a satisfactory explanation only within the Punic Thesis, because only in Punic did the mediae weaken early enough in the history of the relevant possible source languages to have such a dramatic effect on the futhark, in particular the rune order within it. Immediately after *D* follows *H*. The fourth rune, **a**, can readily be explained in any of the Theses, namely as Latin *E*, Greek or Etruscan *E*, or Punic *H* (the letter He), adopted as a proto-rune $^{+}$**e** which later changed its sound value to [a] by the North and West Germanic sound change of long *e* into long *a*.

Thus, the only decisive advantage of the Punic Thesis for proving our position that the futhark is originally nothing but the alphabet lies in its being able to explain the beginning of the futhark. The very fact that trying to explain the futhark on the basis of the alphabet within one of the traditional Theses one gets stuck with the very first letter, may have been sufficiently discouraging not to look for any correspondences later on in the rune row, or to distract almost all investigators to such obvious partial correspondences as ⟨ **p ʀ s t** ⟩ = ⟨ *P* (*Q*) *R S T* ⟩.

What we have done in this section is to demonstrate that the order of the runes in the futhark is not completely different from that of the letters in the alphabet but can be explained by assuming that the futhark started out as an ordinary alphabet, furthermore that some correspondences in the order of the futhark and the alphabet can only be explained by assuming the futhark to derive from the Punic alphabet, with modifications arising from Late Punic developments. We do not claim to be able to explain all the – apparent or real – deviations of the futhark order from that of the alphabet. On the contrary, we are certain that years of further work on

this problem are likely to be required for significant progress (see Vennemann 2009 for some remaining problems).

6. The vowel runes[133]

The Punic and the runic alphabets differ conspicuously in the way vowels were written with them: The Punic alphabet had no letters for vowels at all; and when a need was felt to indicate the presence of a vowel, or even of a specific vowel, some of the consonant letters, the so-called gutturals, *ʔ* ('Aleph), *H* (He), *Ḥ* (Ḥeth), *ʕ* ('Ayin) and the semivowel letters *W* (Waw) and *Y* (Yodh), were used. By contrast, the runic alphabet, the elder futhark, had vowel letters **u**, **a**, **i**, **ï**, **e**, **o**. Hence, the question naturally arises of how the futhark acquired its vowel letters. For **u** and **a** we proposed an answer earlier in this chapter: **u** derived from Punic *G* whose sound value had weakened to semivocalic [u̯], and **a** started out as Punic *H* (*He*) but acquired its historic sound value as a consequence of the North and West Germanic sound change $\bar{e}_1 > \bar{a}$. For **i**, **ï**, **e**, and **o**, answers will be offered in the present section.

Whereas the traditional Punic writing system reflects a rather conservative development of the oldest Phoenician alphabet, the Neo-Punic alphabet used in many parts of the collapsed Carthaginian empire after the fall of Carthage at the end of the Third Punic War (149–146 BCE) shows a more radical departure, inspired by cursive writing but used for all kinds of inscription.[134] Most of the runes clearly reflect traditional Punic letters. But some of them, among them the four vowel runes to be discussed here, remained without a clear source in that system. As will be seen, additional explanations become possible under the assumption that knowledge of the Neo-Punic alphabet in Germania led to certain modifications of the "proto-futhark", the writing system as first adopted for writing Proto-Germanic. There existed indeed an urgent reason for such modifications: As already mentioned, the Punic alphabet was a pure consonant script; there were absolutely no

---

133. This section has gained a lot from work on Late Punic by Karel Jongeling (Leiden University) and Robert Kerr (Wilfrid Laurier University, Waterloo, Ontario). We thank them both, as well as Mohr Siebeck Publishers, for permission to reproduce material from Jongeling & Kerr (2005) and from Jongeling (2008).

134. Cf. Jongeling & Kerr (2005) for an introduction. See also Figure 53 at the end of this chapter. Forms of the Neo-Punic alphabet are also listed in Friedrich & Röllig (1999: Schrifttafel [paleographic chart] V); cf. the selection in Table 1 at the beginning of this chapter. A version of the Neo-Punic alphabet with sample text can be seen on the Internet page "Omniglot, Punic". Many Neo-Punic inscriptions, including some of those shown below, are also accessible via the Internet site "The Neo-Punic inscriptions and coin legends", belonging to the home page "Dr. K. Jongeling".

letters reserved for vowels. There was, however, a tradition of occasionally using certain consonant letters to express the presence of a vowel, even to some extent the nature of the individual vowel. This practice became rather common in Neo-Punic times – understandably, because with increasing Roman influences on Punic language and culture it became an equally frequent necessity to write Latin words, especially Roman names, also Berber names, with Punic letters, and Roman names would have been nearly unrecognizable without an indication at least of some of the vowels in them.

The Neo-Punic inscriptions have been found in a large number of locations, according to Jongeling's (2008: vii–xi) survey: Egypt (1), Libya (17), Tunisia (53), Algeria (23), Morocco (5), Greece (1), Malta (1), Pantelleria (1), Sicily (4), mainland Italy (2), Sardinia (8), Spain (6), and Wales (1). This wide distribution makes it not unlikely that this way of writing also became known in other colonies, e.g. through the Carthaginians fleeing from the empire after the fall of the capital and the Roman takeover. As can be seen in Figure 53 below, there existed a good deal of variation in the shapes of the letters. As is good practice in comparisons of this sort, the inscriptions chosen here to illustrate the similarity between certain Neo-Punic letters and the corresponding runes are among the best to serve this purpose. Deviations do occur, but they are not detrimental to the theory. – The following consonant symbols were used in Neo-Punic for the vowels indicated (Jongeling & Kerr 2005: 8):

- ʔ for all vowels, but mainly for *o* (also for *e*)
- H for all vowels, but mainly for *e*
- Ḥ for *a* (rare)
- ʕ for *a*
- W for *u*
- Y for *i*

The runes that have not found satisfactory explanations so far and that will be treated here by comparison with Neo-Punic writing are those in Figure 43. They will be dealt with in this order in the following sections.

Figure 43. The **ï**, **i**, **e**, **o** runes (cf. Düwel 2008: 2)

6.1 The ï rune, ᛇ

The $^{+}$*īwaz* rune, **ï**, has found no satisfactory explanation in any of the traditional Theses of runic origins.[135] It finds a straightforward explanation in the Punic Thesis if possible subsequent influences of Neo-Punic writing are considered. In Neo-Punic writing, the shape of the letter *Y* is identical with the **ï** rune, given three constraints of runic style: (1) Draw no curved lines, (2) Draw no horizontal lines, (3) Attach twigs to a vertical staff. And that the **ï** rune is by origin indeed nothing but a *Y* is underlined by the fact that it is placed right after the **y** rune (= **j** rune) in most recorded futharks (except for the Kylver stone). The inscription in Figure 31, from Wales, which reads *MʕQRYNʔ*, i.e. *Maqrine*, for the Latin name *Macrinus* (cf. Jongeling & Kerr 2005: 57, 94), shows *Y* for [i] as the fifth letter (reading from right to left).[136]

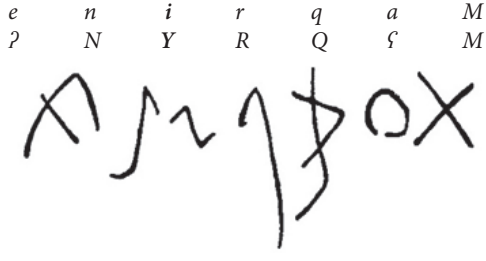


Figure 44. MʕQRYNʔ for Maqrine (Latin Macrinus), with Y for i in position 5 (counting from right to left), Wales, Holt N 1 (see Jongeling & Kerr 2005: 57)

The Neo-Punic inscription in Figure 45 shows the letter *Y* twice for the vowel [i]:

135. In her chapter "The yew rune", Looijenga (2003: 138) writes: "The question of the original sound value of the yew rune […] transliterated as **ï** is interesting. The problem has been treated by many scholars, although without reaching consensus." After summarizing a number of earlier proposals and listing the attestations, she proposes that the yew rune may not have been part of the original futhark but represents a later addition, viz. that it started as a bindrune combining the **i** rune and the **y** rune (= **j** rune) and that the oldest sound value likewise combined *i* and *j* as [ij] or [jī] (Looijenga 2003: 141–142). Though reached within a version of the Latin Thesis, her proposal comes closest to the solution proposed here.

136. The termination *-us* in Latin masculine *o*-stem names is regularly turned into *-e* in Neo-Punic, this being the vocative ending of such names in Latin (see e.g. Röllig 1980: 292).

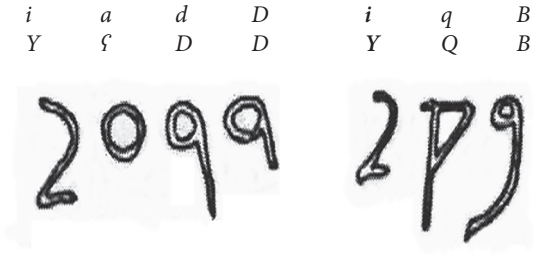


Figure 45. BQY DDʕY (or DRʕY?), for Boccius Didai Libya, Lepcis magna N 29 (cf. Jongeling & Kerr 2005: 23)

The Neo-Punic inscription in Figure 46 shows the letter *Y* four times (lines counted from top to bottom and positions from right to left): in line 1, position 2; line 3, position 9 (damaged); and twice in line 4, positions 4 and 6. The third line ends in the name *KYW*, i.e. *Kiu*; the last line reads *ʔ MDYTY* 'the Maditi' (see Jongeling & Kerr 2005: 33).

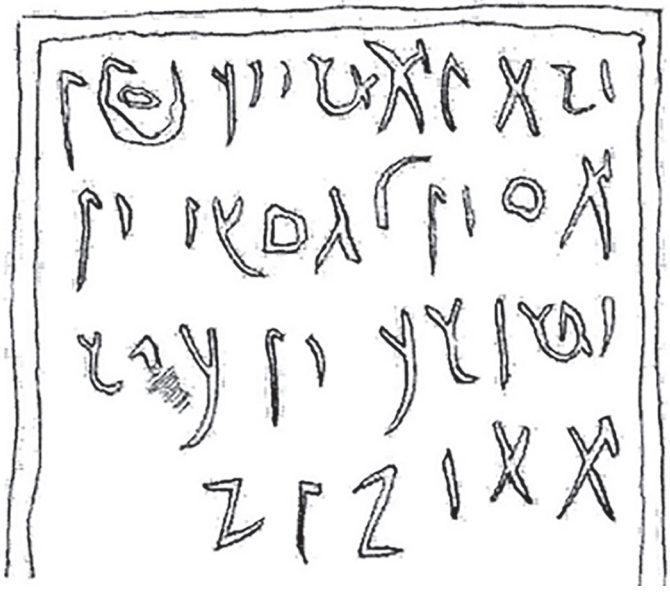


Figure 46. The letter *Y* Tunisia, Dougga N 3 (cf. Jongeling & Kerr 2005: 33; Jongeling 2008: 77)

The Neo-Punic *Y* letter was thus suited for the futhark as a letter for the vowel *i*. Its shape is very similar to that of the ï rune, given the constraints of runic style that admit only vertical and slanted straight lines and, if possible, attach constituent parts of a rune to a vertical staff.

6.2 The **i** rune, |

The **i** rune also has its place next to the **y** rune (**j** rune) in the futhark. It appears to be a simplification of the **ï** rune probably already suggested by variants of the letter *Y* in Neo-Punic writing; cf. Figure 47 and Figure 48.

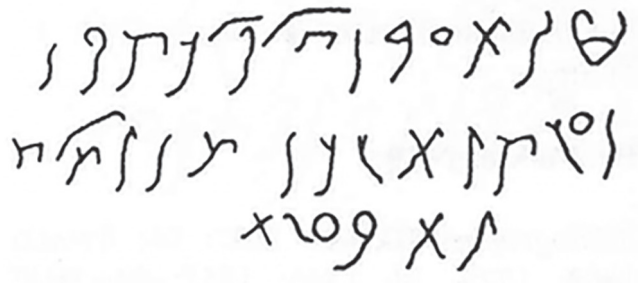


Figure 47. Simplified letter Y in line 3, position 5 Tunisia, Hr. Maktar N 24 (cf. Jongeling 2008: 100)

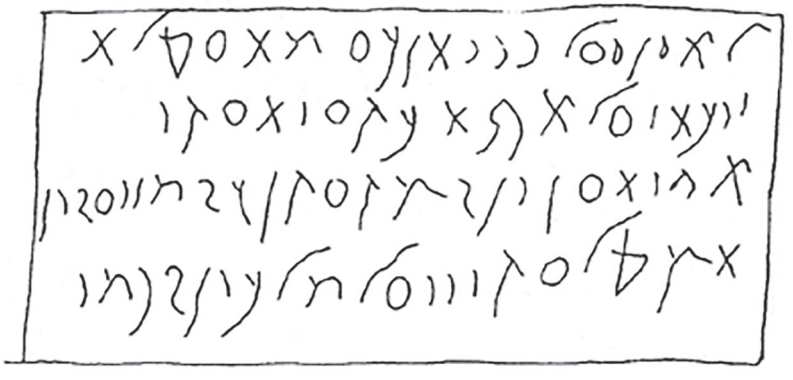


Figure 48. Simplified letter Y (positions counted from right to left): In line 3, position 9; less simplified in line 3, third-to-last position, and line 4, fourth-to-last position Tunisia, Hr. Maktar N 11 (cf. Jongeling 2008: 96)

That the futhark thus seems to have adopted three versions of the Punic letter *Y* is best understood as part of the continuing endeavor to find ways of writing the Germanic vowels with Punic consonant letters. Good parallels are the English pair <*i*, *j*> from a single source letter, Latin *I*, and the English triple <*u*, *v*, *w*> from a single source letter, Latin *V*, even if the derivational paths and the reasons for taking them are rather different.

6.3 The **e** rune ᛖ, ᛗ

The Punic letter H with the name *He* was adopted into the proto-futhark with the sound value of *e* which, pronounced as an open [ē], or [ǣ], later, when a new closed long *e*, so-called $\bar{e}_2$, originated, developed into North and West Germanic long *a*, turning the original H letter by form, position, and then sound value into the **a** rune. In Neo-Punic times the H letter was taken over once again with the sound value of *e*, the short [e], probably because Germanic long *e* and short *e* differed significantly in quality, the long *e* being lower, nearer in quality to phonetic [a] than to phonetic [e]. This Neo-Punic H letter remained in the futhark with its original sound value, [e], because short *e* did not change the way long *e* did.

The **e** rune has not been satisfactorily explained in the traditional Theses of runic origins. It can be explained in the Punic Thesis by comparing Neo-Punic *H* to the first (the older) form of the **e** rune in the section title above, cf. the first letter of line 3 in

Figure 49, the third letter in line 2 and the second letter in line 4 (and others) in Figure 50, and the much simplified version of the He letter in Figure 48 above, line 2, position 9.

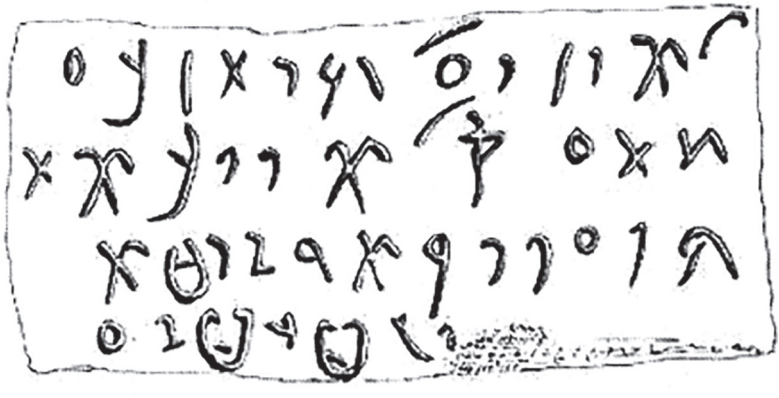


Figure 49. The neo-Punic letter H in line 3, position 1 (read from right to left) Tunisia OU N 2 (cf. Jongeling & Kerr 2005: 41)

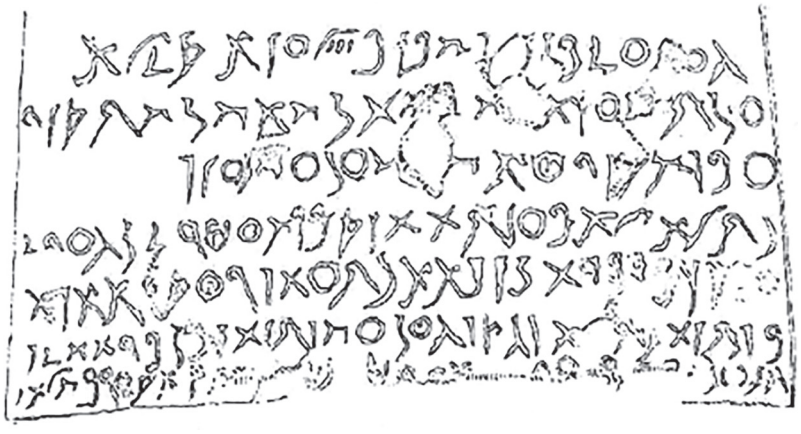


Figure 50. The neo-Punic letter H in line 2, position 3, and line 4, position 2 (etc.), read from right to left, Tunisia, Hr. Brirht N 1 (cf. Jongeling & Kerr 2005: 34; Jongeling 2008: 82)

Figure 51 shows the adaptation process. In the first step the essence of the irregular shape of the Neo-Punic He letter was captured by recognizing two vertical lines connected at the top; considering the runic constraint that only straight lines were permitted, a minimal representation of this perception was the older form of the **e** rune. Subjecting this older form to the further constraint that horizontal lines were not permitted yielded the normal shape of this rune.

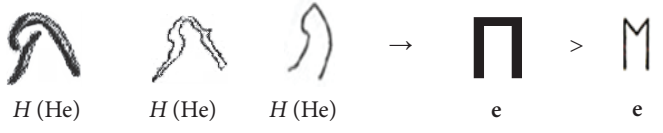


Figure 51. The derivation of the **e** rune from neo-Punic H (he)

6.4 The **o** rune, ᛟ

Another rune that had not been part of the "proto-futhark", the first adaptation of the Punic writing system to Proto-Germanic, was the **o** rune; note its position as the last rune (Kylver) or the next-to-last rune (Vadstena, Grumpan) in the row, which is typical for added letters. In the proto-futhark, the Punic circle letter, ○, named ʿAyin and transcribed as ʕ, assumed the shape of a square (□, Kylver, cf. the constraint "no curves") and the diamond (◊, most other inscriptions, cf. the constraint "no horizontal lines"), with the sound value of the velar nasal, [ŋ]. In Neo-Punic,

however, the circle letter "is the usual grapheme to represent /a/" (Jongeling & Kerr 2005: 8), as the pharyngeal had been lost, and consequently, the relevant letter could be redeployed.

Proto-Germanic had four long vowels, usually represented as ⁺/i: e: o: u:/. ⁺/e:/, also named $\bar{e}_1$, was probably rather low, warranting a representation as ⁺/æ:/, because in North and West Germanic it changed into /a:/, making room for an additional $\bar{e}$-phoneme, $\bar{e}_2$, which entered the system between ⁺/i:/ and $\bar{e}_1$, i.e. ⁺/i:/ and ⁺/æ:/, in North and most of West Germanic (except Anglian). In the back part of the vowel space, pre-Germanic ⁺/a:/ and ⁺/o:/ merged into the single Proto-Germanic vowel usually represented as ⁺/o:/. This vowel probably was rather low, too, phonetically between its sources ⁺/a:/ and ⁺/o:/, warranting a representation as ⁺/ɒ:/. This long ⁺/ɒ:/ was only pushed into a regular *o* position as a consequence of the formation of a new /a:/, from $\bar{e}_1$ in North and West Germanic and from ⁺/a/ plus nasal before the post-velar spirant in Gothic. For these reasons, and also for typological reasons, viz. the usual balanced distribution of vowels in vowel space, the Proto-Germanic long vowel inventory most likely was ⁺/i: æ: ɒ: u:/ (see e.g. Ramat 1981: 24). Combined with the four Proto-Germanic short vowels, ⁺/i e a u/, it seems that a minimum of five vowel qualities needed to be distinguished, granted that vowel quantity was disregarded for the futhark exactly as for the Greek line of alphabets: [i e æ ɒ u], viz. [i] for ⁺/i i:/, [e] for ⁺/e/, [æ] for ⁺/a a:/, [ɒ] for ⁺/ɒ:/, and [u] for ⁺/u u:/. When the vowel system of the futhark was completed by adopting consonant letters used for vowels in Late Punic, the natural choice for Proto-Germanic ⁺/ɒ:/ was the Late Punic circle letter ʿAyin, ○. Its shape in the futhark became of necessity that of a diamond, and for the same reasons as in the case of the **ŋ** rune. So when the circle letter was added to the futhark once again, this time with the sound value of a low back vowel [ɒ], little tails were added to the diamond to distinguish it from the pre-existing plain diamond, the **ŋ** rune. This ⁺***ɒ*** rune, the **o** rune of the historical futhark, then changed its sound value together with the change of ⁺/ɒ:/ into /o:/ in North and West Germanic. In support of our analysis we may, of course, also point to the fact that the Phoenician circle letter assumed the sound value [o] in the Greek line of alphabets, too.

As an example of the circle letter ʿAyin used for the vowel *a* in Neo-Punic, cf. the third letter in Figure 52, where the ʿAyin represents the vowel [a] in a personal name.

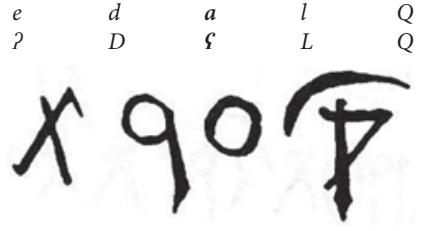


Figure 52. QLʕDʔ, Qelade, for Latin Celadus, Tunisia, Hr. Maktar N 6 (cf. Jongeling 2008: 93)

Cf. also the second letter in Figure 44 and the next-to-last letter in Figure 45 above (always counting positions from right to left), both showing the circle letter ʿAyin standing for the vowel *a* in names.

6.5 Vowel letters in Greek and Germanic: A brief comparison

When a Phoenician alphabet is used to write an Indo-European language, a problem is created by the fact that the source alphabet does not provide separate vowel letters but at best a method of occasionally using certain consonant letters to indicate the presence of a vowel, or even of a specific vowel: In the Semitic languages vowels are to a high degree predictable, whereas in the Indo-European language the need to write vowels arises very frequently, the vowels there being much less predictable. According to the theory presented in this book, this problem arose twice in the origination of the western alphabets, once for Greek and once for Germanic, and it was solved twice, partly in identical, partly in different ways.

One major difference, apart from the fact that the Greek alphabet derived from an eastern tradition of Phoenician writing and the Germanic alphabet from a western one, is the time difference: While the Greeks learned how to write from the Phoenicians in the eighth or seventh century BCE, the Germanic people learned writing from the Carthaginians about five or six centuries later. During this time, while remaining stable as a system, the western Phoenician, or Punic, writing system experienced certain changes in the shapes of its letters. These changes became dramatic when after the fall of Carthage in 146 BCE, letter forms deriving from cursive writing, the so-called Neo-Punic alphabet, came into use. It is here that the greatest difference between the Greek and the Germanic alphabets arose: Whereas the Greek letters, not counting later and in part unnecessary additions, represent essentially one and the same set of Phoenician letters, the Germanic writing system, while for the most part representing the Punic alphabet of the 3rd century BCE, completed its vowel rune inventory by adapting to the purpose of regular vowel writing certain Neo-Punic consonants which had come frequently to be used to

indicate the presence of vowels in this late form of Punic, mainly however in the Latin (also Berber) words and names which flooded the Punic language after the fall of the capital. These special developments in Punic long after the Greek alphabet had been derived from the classical eastern Phoenician, and in particular the radical modifications of the Punic alphabet in Late Punic times are the reason why attempts at explaining the futhark from alphabets in the Greek line of transmission could not possibly be successful. This holds true for the vowel runes even more than for the consonant runes.

6.5.1 *Greek (Jensen 1969: 446–447)*

In Greek the problem of acquiring vowel letters was solved by a combination of procedures. The vowel letters *A*, *E*, and *O* came into being through the Greeks' mechanically applying the acrophonic principle to three of the four so-called gutturals of Phoenician, *ʔ* ('Aleph), *H* (He), and *ʕ* ('Ayin): Since the Greeks did not have, and probably did not hear, these weak consonants, the principle automatically focused the following vowel. Hence Phoenician *ʔ* became *A* (*Alpha*), *H* became *E* (*E psilon* 'plain E'), and *ʕ* became *O* (*O mikron* 'small O') – *O* rather than *A* because *A* had already been derived from *ʔ* ('Aleph), and probably the initial pharyngeal *ʕ* exerted a retracting and thus *o*-coloring assimilatory influence on the following *a* vowel in the name *'Ayin* (see Jensen 1969: 447, n 34). The letter for long *o*, *Ω* (*O mega* 'big O'), is a late modification of *O* (*O mikron*), probably arising from underlining *O* mikron or writing two *O*'s iconically to express *O* mega's "biggerness" (cf. the lower-case variant of *Ω*, *ω*, which shows two *o*'s joined into one letter).

The fourth "guttural", *Ḥ* (Ḥet), adopted as *H* (Hēta) to represent the Greek *h* in some dialects, also succumbed to the mechanical application of the acrophonic principle in those dialects that did not have *h*, which yielded another letter for *e*; this letter was in the standardized alphabet specialized to represent the long low *e*, *H* (Ē, Ēta), which had developed from older long *a* in major dialects.

The Phoenician semivowel letter *Y* was adopted as the corresponding vowel, *I* (*Iota*), Greek not having a palatal semivowel.[137]

All that was lacking now was a letter for *u*. This deficiency was resolved by taking over the Phoenician letter *W* a second time. When the Phoenician alphabet was first applied to the Greek language, the Phoenician letter *W* was predictably used to represent the Greek phoneme /w/, namely as digamma, *F*. The same letter was then taken over again (as *Y*, *U psilon*, *Y psilon* 'plain *U*') to represent the vowel

137. We have not found an explicit explanation for the shape of Greek *I* (*Iota*) in the literature. But looking at the various more archaic shapes of the letter in Jensen (1969: 443), it seems that a process of simplification led to this simplest possible form, quite comparable to that assumed above for Neo-Punic *Y* and the **i** rune.

phoneme /u/. This additional letter was placed at what was then still the end of the alphabet, in Greek as in Phoenician, i.e. right after *T* (Tau).

6.5.2 *Germanic*

In Germanic, as pointed out above, the vowel problem was solved partly in the same ways as in Greek, partly by different procedures.

The **u** rune is Punic *G*, whose sound value had weakened to a semivowel in late Punic. The adoption as a vowel rune was suggested by the fact that Punic *B* and *W* were available for the Germanic semivowel *w*. This differs from Greek where both *F* (digamma) for /w/ and *U* for /u/ (later changed to /y/) were derived from Phoenician *W*.

The Punic letter *H* (He) became runic $^{+}$**e** "the Greek way", i.e. by a mechanical application of the acrophonic principle, Proto-Germanic not possessing an *h*. In Proto-Germanic the phoneme deriving from Proto-Indo-European ^{+}k by Grimm's Law was not yet mere aspiration, *h*, but still the fricative *χ*. Punic *Ḥ* (Ḥet) was better suited to represent this consonant than was *H* (He). When $^{+}\chi$ positionally changed to *h*, so did the sound value of the $^{+}\boldsymbol{\chi}$ rune, i.e. the **h** rune of the historical futhark. When long *e* ($\bar{e}_1$) became long *a* in North and West Germanic, this proto-rune became the **a** rune of the historical futhark.

The **ï** and **i** runes were derived from the Neo-Punic *Y*. *Y* had earlier on been adopted as the **y** [= **j**] rune. The shape of the traditional Punic *Y* had changed significantly in Neo-Punic to warrant its re-adoption as a separate rune, and its frequent use for writing the vowel *i* in Neo-Punic made it a welcome candidate for a vowel rune representing /i/ and $^{+}$/ī/, namely the **ï** rune and its variant, the **i** rune.

The same procedure yielded an **e** rune for an *e* that did *not* change, originally short *e*, namely by adopting Punic *H* (He) over again in its Neo-Punic shape.

Finally the **o** rune, ᛟ, is the Punic circle letter *ʿ* (*ʿAyin*), taken over a second time from the Neo-Punic version of the alphabet and distinguished diacritically from the original circle rune **ŋ**, ᛜ, by the added tails.

7. Conclusion

In this chapter, we first addressed the eight questions posed in Chapter 4, which none of the traditional theories of runic origins – the Greek, the Etruscan, and the Latin theses – could answer. It turned out that within the new theory, the Punic Thesis, all eight questions found straightforward answers. As a by-product we received an answer to the question whether the order of the runes in the futhark really was "completely different" from the order of the letters in the Mediterranean alphabets: We could show that certain substrings of the futhark simply reflected

the Mediterranean alphabet order, so that we could entertain the hypothesis that the futhark started out as an ordinary alphabet, some of whose developments on its way to the historical futhark we could explain, while others had to be left for future research.

Our answers dealing with the initial string of the futhark, in particular the adoption of the mediae *B G D*, with their Late Punic fricative or semivocalic sound values, runic **u**, **þ**, and (moved) **w**, naturally raised further questions, in particular those of the origin of the runic mediae, **b g d**, and of the source of the remaining vowels, **ï**, **i**, **e**, and **o**; only **a** and **u** had so far been accounted for. The runes for the mediae found their explanation in the "doubling" theory, which rests on the fact that only singleton voiced plosives were weakened in Late Punic, while geminates remained plosives. A similar explanation was given for runic **p**, ᛈ, which became doubled Punic *P* because undoubled *P* would have been read [f], Late Punic single /p/ having weakened unconditionally into /f/, while geminate /pp/ remained plosive. Finally, the runes for the remaining vowels, **ï/i**, **e**, and **o**, were recognized as Late Punic letter forms of *Y*, *H*, and ʕ which had come to be routinely used to represent Punic vowels when the influx of large numbers of loan words and names from Latin and Berber made Punic vowel writing indispensable.

We believe that we have made a strong case in this chapter for the Punic Thesis which says that the futhark originated as the Carthaginian alphabet. By implication, this chapter by itself provides very strong evidence, in our opinion, for our overall contention, which is that the language and culture of prehistoric Germania were influenced by the language and culture of Carthage.

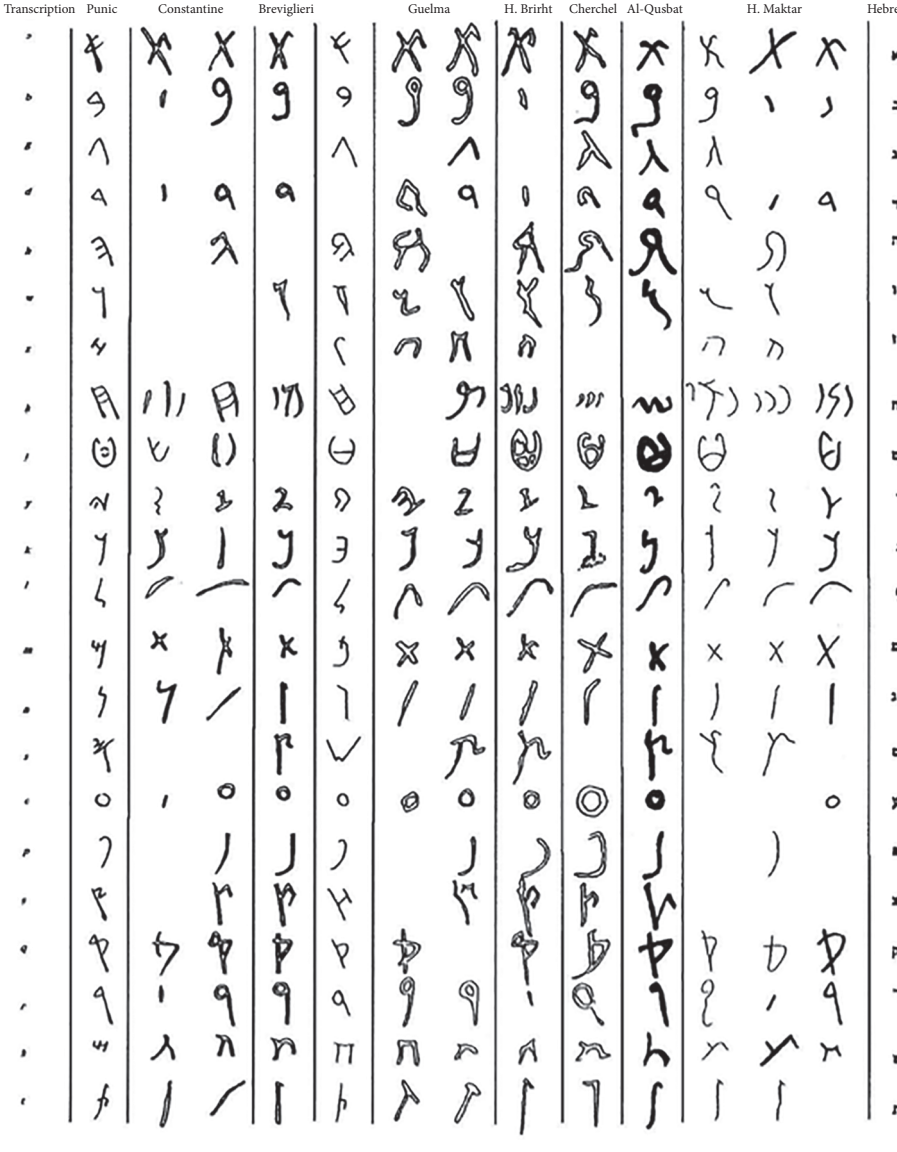


Figure 53. Neo-Punic paleographic chart (from Jongeling & Kerr 2005: 115)

Acknowledgments

This chapter is for the most part based on Vennemann (2006c, 2009, 2010, 2011b, 2013a, 2013b, 2013c, 2015b)

CHAPTER 8

Extralinguistic evidence

1. Overview: Carthage and the world at 500 BCE

1.1 Introduction

This section lays out the necessary historical background and the extra-linguistic evidence for the contact situation assumed in this book. It is important to emphasize that this part does not claim to have extra-linguistic proof for such a contact situation. On the contrary, the material evidence is actually very thin. We are aware of this, but we think that the main arguments for why contact between Punic and Pre-Proto-Germanic is worthwhile exploring are linguistic. This is why we will place most weight on the linguistic evidence, which we think can speak for itself. However, this does not mean we believe extra-linguistic evidence to be insignificant; our opinion is merely that even a total absence of such evidence is not an obstacle to attempting a reconstruction based on linguistic data and argumentation alone.

The first section describes the power of Carthage and the extent of her influence in the 5th century BC. The main point we will make there is that it is likely that Punic settlements existed on the shores of Northern Europe. This is substantiated in the following sections, where we look at Carthaginian trade, expeditions and archaeology. One key piece of evidence is the Carthaginian trade in dried salted fish and amber, which they sourced from the North and Baltic Seas. Another piece of evidence comes from what is known about large expeditions the Carthaginians undertook, and whose goal it was to push out the borders of their trade empire and to open up access to new resources. However, there are also sparse archaeological records from nearby areas that confirm a Punic presence for the British Isles, which can be taken as suggestive indication that this is plausible for the other side of the Channel a little further north. In addition, we review genetic data that points in the same direction. Finally, we review another complex of evidence, namely the many close and specific parallels between Germanic and Punic religion.

The conclusion drawn from this evidential mosaic is that it is quite possible that the Carthaginians established trade settlements in modern Denmark and Southern Sweden, where they could have come in contact with speakers of Pre-Proto-Germanic.

1.2 Carthage and her empire at 500 BC

This section gives an overview of the nature and extent of the Carthaginian influence in, and especially beyond, the Mediterranean. We will show that it is likely that the Carthaginians set up small trade outposts on Northern European coasts, as this is just an extension of their usual practice from locations that were known to have had a Phoenician/Punic presence and that were geographically close. The general opinion is that at 500 BC, Carthage was the primary sea power and economic power in the Western Mediterranean (Gsell 1913: 411). It is also clear that its sphere of direct influence and contact zone extended well beyond the Western Mediterranean:

> Ships pushed past the Pillars of Hercules (the Straits of Gibraltar) and down the coast of Africa and into the Atlantic and the North Sea. […] The commerce with Britain provided the Carthaginians with amber from Scandinavia, as well as one of their most lucrative commodities: tin. Building on the Phoenician trade in tin, the Carthaginians held a virtual monopoly on the resource in the Mediterranean world, and it made similar efforts to control other valuable resources, including silver, lead, and gold. (Bunson 2012: 113)

The plausibility of such an extension of influence into the far north is supported by the position of Carthage in the world at 500 BCE and its behaviour as a world power. The first fact that has to be understood is that Carthage was a very self-confident major economic and military power. It was able to contain the Greek presence everywhere in the Western Mediterranean, and was recognized by Greeks, Etruscans and Romans as an equal (Pilkington 2013). The epic clash with Rome, which finally led to Carthage's annihilation underscores this point – Rome did not want to take any risks. That the Punic sense of identity and cultural pride continued to exist and be influential for several hundred years – and not just in North Africa, but everywhere in the Punic sphere of influence, including especially Sardinia and Spain – proved the Romans right: Carthage was more than just a Phoenician city state, it embodied a culture, a nation that was remarkably resilient even in the face of certain death, as the accounts of the final days and hours of Punic Carthage show (see e.g. Eiliger 1990: 11–19).

This empire was also incredibly rich and well-resourced (Demandt 1995: 370–1; Moscati 1996: 234; Pilkington 2013). There are many indications for this. One indicator is the speed with which Carthage could rebuild its army, fleet and general infrastructure after military disasters. The ancient sources give ample testimony for that, and one of the most impressive feats was the number of weapons that the Carthaginians manufactured in the short time they had in-between when they had to turn their arsenal over to the Romans and the imminent attack on the city (see e.g. Charles-Picard & Charles-Picard 1983: 108). Another indicator are the big

expeditions Carthage sent out, which must have been quite considerable in manpower and associated resources, even if the ancient sources may exaggerate when they mention sixty ships and 30,000 men (see Chapter 12 below for more details on Hanno's and Himilco's voyages).[138]

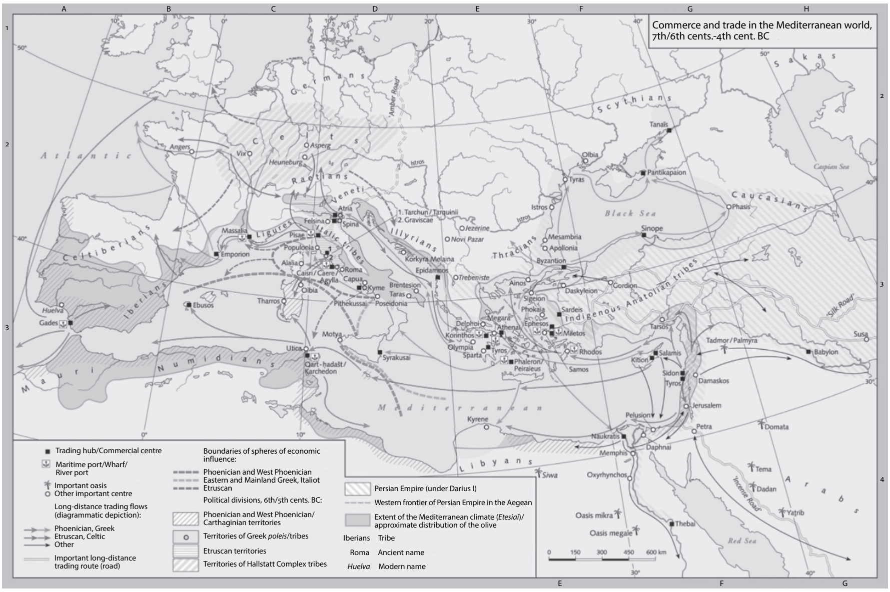
Second, Carthage was much more than a trade empire. Although trade and access to resources that could be traded was the driving force behind Phoenician expansion in general (Demandt 1995: 369), Carthage had developed the general strategy into a carefully planned territorial expansion (Pilkington 2013). The goal of the Carthaginian colonization was to establish trade outposts and colonies, the military and political penetration of entire regions (Huß 2008: 33), not only to obtain control over resources but also to secure tribute payments (Ameling 1993: 108). The means by which this was to be achieved clearly also comprised military conquest. Carthage was by no means simply a peaceful nation of traders (Ameling 1993: 176–179), though it employed a unique system of trade treaties to control its colonial empire (Markoe 2000: 102). This can be seen from the colonization of Spain, where Carthage took over earlier Phoenician settlements. The Punic rule was military-based (Ameling 1993: 111), in contrast to the formerly much looser trade-based control by their predecessors (Dietler & López-Ruiz 2009: 302).

Third, Carthage went much further than other empires in extending her territory and sphere of influence. The Phoenicians were the greatest seafarers of their time, and had mastered not only coastal sea travel but also travel across the open sea (Morstadt 2015: 73). While others, such as the Romans, largely moved into adjacent territories or carried out long-distance expeditions for investigative purposes, such as the Greeks, the Carthaginians seem to have combined expeditions with colonization in that they founded trade outposts with a substantial number of settlers on such journeys (Demandt 1995: 369). This is explicitly said about Hanno's African voyage (see 2.2 below). Therefore, it is unlikely that their sea voyages in the Atlantic would not have also included settlers who founded colonies in suitable places in relatively close proximity to another. Such colonies would have been small, at least initially. For instance, Phoenician colonies in Spain were relatively small: most were less than one hectare to three, four hectares in size, which is small compared to other Phoenician colonies in the Mediterranean (Dietler & López-Ruiz 2009: 301).

The exact extent of how far north Carthage's territorial influence reached has not been ascertained. As will become clear in Section 4 below, as far as material evidence is concerned, beyond the Iberian Peninsula there is little that has so far been unambiguously connected with Carthage. It is relatively certain that

138. Schulz (2016: 157) thinks the figures mentioned in the antique sources may in fact be realistic.

the Carthaginians had at least trade outposts in the British Isles (see e.g. Moscati 1996: 243). Such a view is supported by the historical sources that put the tin trade firmly in Punic hands and connect this explicitly with Britain (see e.g. Charles-Picard & Charles-Picard 1983: 248–251). Map 1, from Wittke (2011) shows the known trade network of Carthage.



Map 1. The extent of the Punic trade network (Wittke 2011)

We therefore surmise that the Carthaginians could well have crossed the channel or sailed up the North Sea coast, especially since they also controlled the amber trade. But there were enough other incentives in terms of resources, for example wood, raw materials and slaves. It is thus likely that there were also Carthaginian outposts on the coasts of the Atlantic and possibly also the Baltic Sea. We are aware of the fact that so far there is no direct material evidence to prove this, but we would like to submit that it is at least plausible, and we think we are not alone with this view (see e.g. quote from Bunson 2012 above; Huß 2008: 33).

Fourth, while Carthage ruled its colonies with some flexibility and although it did take into account the local conditions, there was an element of central control (Ameling 1993: 114; Markoe 2000: 90). In general, Carthaginian rule seemed to have been predominantly military, civil administration appears to have been neglected to some degree (Ameling 1993: 113; Markoe 2000: 90; Moscati 1996: 233). The Carthaginians organized their rule differently for different colonies. Older colonies, such as Sardinia, seemed to have more independence, whereas more

recent ones, such as Spain, were more tightly controlled (Ameling 1993: 112–113), but colonies, as a rule, could not pursue an independent foreign policy (Demandt 1995: 368; Eiliger 1990: 98; Huß 2008: 79; Moscati 1996: 233). Legally, citizens of the colonies possessed an equal status to citizens of Carthage: they had to pay taxes, they had to serve in the military, etc. (Huß 2008: 79–80).[139] It is therefore likely that colonies on the Northern Atlantic coast would also have been subjected to a military type rule with central control, which perhaps gradually acquired some civil elements.

Fifth, the Carthaginian society was organized relatively democratically (Demandt 1995: 363–364). It was permeable to some degree. The executive was elected, and there existed a separation of legislative/executive (*sufets*) and military leaders (Ameling 1993: 94; Moscati 1996: 223) though the *sufet* was the pivotal institution in Carthage and its dependencies (Pilkington 2013: 207). There was an elected people's assembly with substantial power, e.g. to elect generals, as well as an elected judiciary, "the 104" (Eiliger 1990: 97; Markoe 2000: 89–90). Citizenship and thus eligibility for these institutions could be obtained even by slaves (Markoe 2000: 91). Also, Carthage and its empire were highly multicultural, and there is every reason to assume that access to at least some political power was possible for almost everyone, even women (Markoe 2000: 92). Foreigners with prestige, such as Greeks, could become citizens (Demandt 1995: 363), and the backbone of the administration in Carthage were Punic-speaking Lybians (Moscati 1996: 233). In the context of colonialization this means that the Punic colonizers were likely to be ethnically and possibly also culturally heterogeneous, as was the case e.g. in Sardinia (Belarte 2009: 106). This also means that the local population, despite being under the political control of the Carthaginians, would be in a position to participate in the colonial society, making possible the kind of hybridization developments that has been progressively uncovered in recent literature (Arruda 2009: 129; Belén Deamos 2009: 215; Dietler & López-Ruiz 2009: 300; Pilkington 2013)

To sum up, in the 5th century BCE Carthage was a major economic, political and military power in Europe that was constantly trying to expand its territory, gain access to new resources and to establish new markets. Its society was perhaps more democratically organized and more permeable than others at the time, which supported hybridization in a colonial context.

139. Although the majority of Carthage's military power was built on mercenaries, it did have a permanent army in which also Carthaginians served. Like in other states in antiquity, oarsmen were probably exclusively Carthaginian citizens (see Ameling 1993: 190–210 for further details).

2. Carthaginian trade and sea voyages

2.1 Carthaginian sea trade with the north

The Phoenicians in general have traditionally been seen chiefly as traders, especially in long distance trade (Demandt 1995: 369; Harden 1963: 158). In this, Carthage is no exception. It is generally portrayed as a trade "nation" or "empire", and territorial expansion has been motivated by a desire to access raw materials or new markets, especially in connection with metals (Markoe 2000: 103). More recent research has qualified this somewhat. It is firstly not straightforward how "trade" is to be defined. For instance, the Phoenicians had an extensive practice of gift exchanges, which could also be classified as trade (Alfen 2015). The role of metal in Phoenician trade probably has also been overrated (Alfen 2015; Pilkington 2013: 89). Instead, much of the trade revolved around agriculture (see already Markoe 2000), and was not at all dissimilar to other contemporary trade in the area (Alfen 2015). Moreover, while the Phoenicians doubtless undertook long-distance voyages and engaged in long-distance trade, more localized trade should not be neglected in its significance (Alfen 2015 with references). In addition, even though the Phoenicians in general did expand their territorial reach in order to gain access to resources and markets, a good deal of their colonial expansion, especially that of Carthage, was imperial (Pilkington 2013). That is, its aim was to establish colonies and settlements, rather than just small trade outposts (Ameling 1993: 108). And it would be incorrect to call the Carthaginians "non-warlike", as Demandt (1995) does, because war clearly was to them a legitimate and common means to achieve their imperial goals (see especially the synopsis of Carthage's expansion in Pilkington 2013: 361).

Despite these caveats qualifying an image of the Phoenicians in general and the Carthaginians in particular as purely-trade oriented, however, it is uncontested that trade played a major role in Phoenician and Carthaginian activity. Carthage and its dependent polities conducted large-scale trade operations reaching into the Atlantic well beyond what is Portugal today (Schulz 2016: 154). Apart from agriculture, wood and metal, two goods that could be obtained in Northern Europe and that the Phoenicians in general have been connected with are salted fish and amber.

Salted fish had always been a major industry in Phoenician Spain, especially at Gadir (Pilkington 2013: 108), but the fifth century BC saw a significant increase in Phoenician production and long-distance trade of salted fish (Pilkington 2013: 106, 108). Judging from archaeological remains, the most important fish in this trade was sea-bream, which was mainly fished in the Atlantic. The main destination for salted fish from Spain appears to have been Corinth (Pilkington 2013: 110):

Research conducted on the remains of scales and fillets from Gaditean amphora found at Corinth (5th century) showed that the remains of Tuna are less common than the Sea Bream/Gilthead Sea Bream. Sea Bream remain common in the area around Gadir to the present day. They are known to migrate along the Atlantic coast of the Iberian Peninsula up to the British Isles. Those that remain in the Mediterranean congregate in estuarial areas and use tidal flows for hunting; therefore, they were easy targets for coastal fishermen. The salted fish were likely carried in R1 amphorae which dominated the ceramic record of the Iberian Peninsula in the 8th and 7th centuries BCE. By the late 6th century, a specialized amphora, known as the Mañá-Pascual A4, was developed to support long distance exports of salted fish (Pilkington 2013: 151).

Amber was highly sought after in antiquity (Singer Gestoso 2008). This is especially valid throughout the Bronze Age. After 600 BCE, there seems to have been a decline in the use of amber (Todd & Eichel 1974: 303), even though it seems to have regained its popularity somewhat in post-classical times, as the Romans and for instance also the Goths did appreciate it (Wessely 1913: 258–259). Amber was mainly sourced in Northern Europe, on the shores of the Baltic Sea, although it is also found elsewhere (Singer Gestoso 2008; Todd & Eichel 1974; Wessely 1913). Several routes were used since the Bronze Age to transport amber from the source to the Mediterranean (Map 2):

Map 2. "Amber roads" (Singer Gestoso 2008): The western sea route of interest here

According to Pliny, the Phoenicians were in control of the sea route in Map 2 (Wessely 1913: 266), and Carthage developed a monopoly over the amber trade from 600 BCE onwards (Todd & Eichel 1974: 303).[140] While this does not prove the existence of colonies and larger settlements, it does suggest that the Phoenicians somehow could reach to the shores of Northern Europe. This in turn makes it likely that they had at least some friendly ports available in which Punic-speaking communities could have been established. Given the long time span of the Phoenician-controlled amber trade, it seems not at all implausible that one of the motivations for Punic settlements in Northern Europe could have been the amber trade (see also Section 1.8 in Chapter 7 for Homer's famous connection between amber and the Phoenicians).

2.2 The voyage of Himilco

The oldest extant report of Phoenician activity in the Atlantic north of Cádiz is contained in Pliny's *Natural History* (Mayhoff 1906). It is a very short and seemingly uninformative remark about a voyage of a Carthaginian admiral named Himilco to the northern Atlantic shores, but it becomes, on the contrary, extremely significant and informative by placing it on a par with a contemporaneous voyage, that of another Carthaginian admiral named Hanno to the southern Atlantic shores, who is mentioned, also by Pliny, in another sentence. The point is that a lot is known from another source about Hanno's voyage, so that we are invited to imagine the European voyage of Himilco to be of the same magnitude of equipment and serving the same kind of purpose as the well-described and intensively discussed African voyage of Hanno. Here are the two sentences that Pliny tells us about Hanno's and Himilco's voyages (for the English translation see Rackham 1949):

Pliny about Hanno:

> fuere et Hannonis Carthaginiensium ducis commentarii punicis rebus florentissimis explorare ambitum Africae iussi. (Pliny, Naturalis Historia 5.3)
>
> There formerly existed some Commentaries written by Hanno, a Carthaginian general, who was commanded, in the most flourishing times of the Punic state, to explore the sea-coast of Africa.

Pliny about Hanno and Himilco:

---

140. Following Gsell (1913: 472), Charles-Picard & Charles-Picard (1983: 251) assert that the Carthaginians never reached the Baltic Sea, because there is little archaeological evidence for their use of amber. However, we think the conclusion does not necessarily follow from the premise. We find it quite plausible that the Phoenicians and the Carthaginians traded amber, especially to the Eastern Mediterranean, but did not use it themselves to a large degree.

> et Hanno Carthaginis potentia florente circumvectus a Gadibus ad finem Arabiae navigationem eam prodidit scripto, sicut ad extera Europae noscenda missus eodem tempore Himilco. (Pliny, Naturalis Historia 2.71)
>
> Also, when the power of Carthage flourished, Hanno sailed round from Cadiz to the extremity of Arabia and published a memoir of his voyage, as did Himilco when despatched at the same date to explore the outer coasts of Europe.

This meager account is fleshed out by the additional text mentioned above, the very Commentaries attributed to Hanno, preserved in the longest extant piece of Phoenician writing, though only in a (possibly shortened) Greek translation. This translation, of ca. 400 BCE, rests on Hanno's own Punic account of his voyage exhibited on a tablet in the temple of Baʿal Hammon in Carthage and is preserved on three pages of a 9th century manuscript (*Codex Palatinus Graecus* 398, fol. 55r–56r) in the University Library of Heidelberg.[141] Most of this account naturally deals with Hanno's experiences during his 39-day voyage along the north-western African coast, but the initial sentences describe the equipment of the fleet and state the purpose of the voyage:

> ἔδοξεν Καρχηδονίοις Ἄννωνα πλεῖν ἔξω στηλῶν Ἡρακλείων καὶ πόλεις κτίζειν Λιβυφοινίκων: καὶ ἔπλευσεν πεντηκοντόρους ἑξήκοντα ἄγων: καὶ πλῆτος ἀνδρῶν καὶ γυναικῶν εἰς ἀριθμὸν μυριάδων τριῶν καὶ σῖτα καὶ τὴν ἄλλην παρασκευήν.
>
> It pleased the Carthaginians[142] that Hanno should voyage outside the Pillars of Hercules, and found cities of the Libyphœnicians. And he set forth with sixty ships of fifty oars [literally: sixty penteconters], and a multitude of men and women, to the number of thirty thousand, and with wheat and other provisions.

The number of 500 persons to a penteconter is sometimes contested. But Aly (1927: 330) considers it realistic. Schulz (2016: 156–157) agrees and supplies historical parallels.

What is more important in our context than the validity of details is the fact that no difference is signaled in the Pliny quotation concerning the magnitude or the purpose of the voyages of Hanno and Himilco, or concerning the records they publicized of their achievements, while the simultaneity of their dispatchment is specified. Therefore, the default assumption has to be that Himilco's undertaking only differed from Hanno's by being directed to the northern extremity of Europe

---

141. It is readily available in Aly (1927: 321–324) the most detailed account in particular of Hanno's voyage. The quotation below is taken from this edition, p. 321; the translation is Schoff's (1912: 1). A detailed analysis of this periplus, provided with maps, is Euzennat (1994).

142. I.e., 'The Carthaginians decreed', as in ἔδοξε τῇ βουλῇ = *placuit senatui* 'it pleased the senate', 'the senate decreed'.

rather than southward along the African coast. The only demonstrable additional difference, a deplorable one for our purpose, is that Himilco's memoir of his voyage is lost while only Hanno's has been preserved – a difference that is unlikely already to have existed for Pliny (or Avienus in the 4th or 5th century, cf. below) or else he would have mentioned it. We will cite the similar assessment of the situation concerning Himilco's voyage in Hennig (1944), where a chapter each is devoted to the two voyages and where in addition the approximate date of the two events is determined, after a lengthy discussion of the copious literature on this question.

But before presenting this evaluation, we have to turn briefly to the second extant mention of Himilco's voyage in antiquity, viz. in the 4th or 5th century poem *Ora maritima* of Rufus Festus Avienus. Himilco's name occurs in three places, specifically in verses 116, 383, and 412 (in the last one misspelled *hemelco*).[143] In the first mention (comprising vv. 114–129), Himilco is cited with the statement that it took him four months to reach his destination, and with descriptions of a number of obstacles to speedy progress in those waters. In the second and third mentions (380–389, 404–413) more such obstacles are enumerated; and the third mention is expanded by the poet's assurance (vv. 414–415) that he has dug up these oddities, which Himilco had himself seen and demonstrated, from age-old Punic annals in long working hours and brought to light for the reader. Details are found in the following quotation from Hennig's book:

> Da […] Plinius bezeugt, dass Himilkos Expedition gleichzeitig mit der des Hanno stattfand und diese […] vor 517 unternommen worden sein muss, kann m.E. auch für Himilkos Fahrt allein das Jahrzehnt zwischen 530 und 520 v. Chr. in Betracht kommen.[144] […]
>
> Plinius, der möglichenfalls den Originalbericht noch kannte, gibt an, Himilko sei von Karthago entsandt worden *ad extera Europae noscenda*. Es wäre daher denkbar, dass er nicht nur das Zinnland aufsuchen sollte, sondern auch noch andre wichtige Handelsgebiete, z.B. das Bernsteinland. Gemeldet ist hierüber nichts. […]

---

143. We follow the most reliable edition, Stichtenoth (1968), which is accompanied by a faithful reproduction of the first edition, Venice 1488, the only source of the poem. The text is also readily available on the *Latin Library* Internet site "Rufus Festus Avienus, *Ora maritima*", www.thelatinlibrary.com/avienus.ora.htmlx (25 June 2016).

144. Aly (1927: 311–312) gives the last decade of the 6th century BCE as *terminus ante quem*, Stichtenoth (1968: 57) dates Himilco's voyage to the beginning of the 5th century BCE. All of these datings fit into the frame established by Pliny's *punicis rebus florentissimis* 'in the most flourishing times of the Punic state' and *Carthaginis potentia florente* 'when the power of Carthage flourished'. See Chapter 3 and above in the main text for evidence that Carthage was in its prime in the 5th century BCE (cf. also Aly 1927: 316).

Der Original-Reisebericht ist leider verloren gegangen. Unzweifelhaft hat ihn Himilko, ebenso wie Hanno, den Auftraggebern erstattet – ob in ähnlich feierlicher Form oder in anderer Weise, ist nicht bekannt. Auch Auszüge aus dem Bericht sind nur sehr spärlich vorhanden, so dass wir über den Verlauf und das Ergebnis der Fahrt nur höchst mangelhaft unterrichtet sind. Die einzige Quelle, die uns einen geringen Einblick in die karthagischen Reiseerlebnisse auf der ersten Fahrt zu den Zinninseln ermöglicht, ist eben das spätrömische Gedicht "Ora maritima" des Avienus, worin einige Male auf Himilkos Bericht Bezug genommen ist. Zur Zeit, als Avienus dichtete (um 400 n. Chr.), war die karthagische Beschreibung der Fahrt aber schon rund 900 Jahre alt.

Es scheint, dass Himilko mit seinen Begleitern nach Südengland und Irland gelangt ist. Wie weit er seine Reise erstreckt, was er dabei ausgerichtet hat, bleibt unbekannt. Fest steht nur, dass die Überfahrt ungewöhnlich viel Zeit beanspruchte, da ungünstige Witterung, in Gestalt von zahlreichen Windstillen, Nebelgewölk und mangelnder Sicht, die Expedition in den unbekannten Meeren nur sehr langsam vorwärts kommen liess. Auch mit Untiefen, Tangmassen und zahlreichem Seegetier hat man an einer nicht bekannten Stelle harmlose, aber unerfreuliche und erschreckende Bekanntschaft gemacht. – Nicht ausgeschlossen ist es freilich, dass diese Einzelheiten, die viermonatige Reisedauer und die Schiffahrtshemmnisse aller Art, von den schlauen Karthagern z.T. nur erdichtet worden sind, um jeglicher Handelskonkurrenz die Lust zu einer Fahrt nach dem Zinnland gründlichst zu nehmen. (Hennig 1944: 104f.)

['Since Pliny bears witness that Himilco's expedition was simultaneous with Hanno's and that the latter must have been undertaken before 517, for Himilco's voyage too only the decade between 530 and 520 BCE can come into consideration. […]

Pliny, who may still have known the original memoir, states that Himilco was dispatched by Carthage *ad extera Europae noscenda*. It is therefore conceivable that he was not only to visit the Tin Land but also other important trade areas, e.g. the Amber Land. Nothing is reported about this. […]

The original travel report has unfortunately been lost. There can be no doubt that Himilco presented it to his commissioning authorities even as did Hanno – whether in the same ceremonial way or in a different manner is not known. Also excerpts from the report are rare, so that we are extremely poorly informed about the course and the result of the voyage. The only source giving us a meager impression of the Carthaginian travel experiences during the first voyage to the Tin Islands is precisely the late Roman poem "Ora maritima" of Avienus, where reference is made several times to Himilco's report. However, at the time when Avienus wrote his poetry (ca. 400 CE), the Carthaginian description of the voyage already was 900 years old.

Himilco and his companions seem to have reached southern England and Ireland. How far beyond he extended his voyage and what he accomplished remains

> unknown. The only piece of certain knowledge is that the passage consumed unusually much time because unfavorable weather in the shape of numerous lulls, foggy clouds, and reduced visibility only allowed the expedition in the unknown oceans to advance slowly. They also made the harmless but disagreeable and frightening acquaintance of shoals, masses of seaweed, and large numbers of sea creatures in an unknown location. – It cannot be excluded, to be sure, that these details, the travel time of four months and the various kinds of navigational obstacle, have merely been made up by the shrewd Carthaginians in order to take all the fun out of planning voyages to the Tin Land for the business competition.']

The last point made by Hennig is less *ad hoc* than it may seem. The strategy of keeping possible competition in the dark about one's own explorational and colonizational activities is well known from historical analogies. Henry the Seafarer (Dom Enrique o Navegador, 1394–1460), the Portuguese prince who had his navigators explore and colonize the Western African coast very much like the Carthaginians had had their admiral Hanno do two millennia earlier, punished breaches of secrecy by death. Strabo (*Geographica* 3.5.11) mentions the strategy specifically with reference to the Carthaginans' sea route to the Tin Islands (the Cassiterides):

> Αἱ δε Κασσιτερίδες δέκα μέν εἰσι … πρότερον μέν οὖν Φοίνικες μόνοι τὴν ἐμπορίαν ἔστελλον ταύτην ἐκ τῶν Γαδείρων, κρύπτοντες ἅπασι τὸν πλοῦν.
>
> (Strabo 1923: 156)

> The Cassiterides are ten in number … Now in former times it was the Phoenicians alone who carried on this commerce (that is, from Gades), for they kept the voyage hidden from every one else. (Strabo 1923: 157)

Strabo goes on to illustrate this policy of secretiveness with an often retold anecdote:

> τῶν δὲ Ῥωμαίων ἐπακολουθούντων ναυκλήρ τινί, ὅπως καὶ αὐτοὶ γνοῖεν τὰ ἐμπόρια, φθόνῳ ὁ ναύκληρος ἑκὼν εἰς τέναγος ἐξέβαλε τὴν ναῦν, ἐπαγαγὼν δ' εἰς τὸν αὐτὸν ὄλεθρον καὶ τοὺς ἑπομένους, αὐτὸς ἐσώθη διὰ ναυαγίου καὶ ἀπέλαβε δημοσίᾳ τὴν τιμὴν ὧν ἀπέλαβε φορτίων. (Strabo 1923: 156)
>
> And when once the Romans were closely following a certain ship-captain in order that they too might learn the markets in question, out of jealousy the ship-captain purposely drove his ship out of its course into shoal water; and after he had lured the followers into the same ruin, he himself escaped by a piece of wreckage and received from the State the value of the cargo he had lost. (Strabo 1923: 157)

Nevertheless, we receive no firm answer to the question whether Himilco with his fleet and thousands of men and women extended his explorational and colonizing activities beyond Britain and Ireland to Germania. The question is left open in Pliny's short remark. Yet Hennig reckons with the possibility that Himilco's commission comprised the exploration of other important trade regions, and he

specifically mentions the Bernsteinland [Land of Amber], the lands around the south-western Baltic Sea, i.e. ancient Germania.[145] Considering that amber was in antiquity an extremely highly valued and much sought-after commodity and that the Phoenicians were known for their amber trade (see e.g. Homer's Odyssey (15.469)), it is quite possible that the Land of Amber was among the goals of Himilco (see Section 1.8 in Chapter 7).

It cannot be excluded, to be sure, that these details, the travel time of four months and the various kinds of navigational obstacle, have merely been made up by the shrewd Carthaginians in order to take all the fun out of planning voyages to the Tin Land for the business competition. However, in the most recent reference to Himilco's expedition, a short, single-page account (Schulz 2016: 153 f.) compared to the nine pages (plus map) on Hanno's (ibid.: 155–164), a very interesting and important point is made: The Author interprets the astonishing length of Himilco's voyage not at all along Avienus' lines, namely as caused by a number of obstacles to speedy progress in those waters, but by means of a very rational argument reflecting the Phoenicians' true purpose in life, namely the establishment of trade networks (Schulz 2016: 154).

And trading contacts with the Tin Islands could not be "established" by Himilco because they already existed. The allure and challenge in this regard were the coasts

---

145. The Greeks called the North and East Frisian islands the Ἠλεκτρίδες (*Ēlektrídes*, Lat. *Electrides insulae*, cf. Greek *élektron* 'amber'). Redslob (1855: 26) identifies the Land of Amber not with the area where amber was found but with that area which in antiquity was known to be the market where amber was sold and bought for export, the western coast of Jutland: "Preussen mag das *wahre* Bernsteinland gewesen sein; als *dasjenige* Bernsteinland, *von dem die alten Schriftsteller sprechen*, müsste der Fuss der cimbrischen Halbinsel angesehen werden." [Prussia may have been the *true* Land of Amber; but the Land of Amber *that the ancient authors speak about* we must identify with the foot of the Jutland Peninsula.] This is so, as Redslob points out, because it has always been common to confuse the place of purchase – the market – with the place of origin of the traded article. But Redslob, on the same page, also points out that not only the coasts of the Baltic Sea but also the North Sea coast of the Jutland Peninsula allow amber to be collected commercially. Therefore, the western coast of the peninsula was part of the "true Land of Amber" as well. Redslob highlights the southern part of the coast, the "foot of the Jutland Peninsula", because this is where the waterway system of Schlei, a fjord of the Baltic Sea, and Rheider Au → Treene → Eider reaches the North Sea, traversing the entire Peninsula with only a short interruption at the head of the Schlei. The commercial significance of this waterway, which saves the traders the long and dangerous detour around the northern end of the Peninsula through Skagerrak and Kattegat, is evident from the flourishing of the mediaeval town of Haithabu (near modern Schleswig) exactly at the head of the Schlei, midway between the two Seas; it is underlined by the fact that its successor, the Schleswig-Holsteinischer Canal or Eider-Canal (opened 1784), was for a century the most traveled waterway in the world, which the Kiel Canal (in German: the Kaiser-Wilhelm-Kanal, now Nord-Ostsee-Kanal, opened 1895) still is (ca. 32,600 sea-going vessels in 2014, cf. the Internet site "Nord-Ostsee-Kanal").

on the other side of the Channel and the German Sea, regions of great economic potential, what with amber, slaves, furs, salt, grain, klipfish, honey, perhaps timber and other natural goods to be had in exchange for precious metals, garments, wine in wineskins, trinkets of every kind.

There is an important piece of textual information of which much has not been made in the past, to our knowledge, but which to us appears crucial. This is Pliny's statement that the declared goal of Himilco's voyage was *ad extera Europae noscenda* [to explore the outer coasts of Europe]. What were, to the educated Carthaginian elites of about 500 BCE, the *extera Europae* (not to ask the same question in relation to Pliny, who uses this expression, again more than half a millennium later)? *Extera Europae* cannot possibly refer to the British Isles; these had long been traveled to by the Tartessians, and even Carthaginians had traveled a northern route before Himilco, according to Avienus (*Ora maritima*, vv. 107–118), a passage we cite in full, for this reason:

> ast hinc duobus in sacram, sic insulam[146]
> dixere prisci, solibus cursus rati est.
> haec inter undas multa cespitem iacet,
> eamque late gens Hiernorum colit.
> propinqua rursus insula Albionum patet.
> Tartessiisque in terminos Oestrymnidum
> negotiandi mos erat. Carthaginis
> etiam coloni et vulgus inter Herculis
> agitans columnas haec adibant aequora,
> quae Himilco Poenus mensibus vix quatuor
> ut ipse semet re probasse retulit
> enavigantem, posse transmitti adserit.[147]

146. *Insula sacra* as a name for Ireland is most likely but a folk-etymological interpretation of *Hierni* (*gens Hiernorum*) 'the Irish', cf. the *Ierne* 'Ireland' of Claudian, Strabo, and Stephen of Byzantium (Mac-Gheogheagan 1844: 112; Schulz 2016: 104–105, 39–46, 116). The *(h)ier-* in these name forms in Antiquity inevitably evoking Greek *hierós* 'holy'. Schulz (2016: 154) adds a folk-etymology of his own when he writes, "eine große Insel […], die man als heilig, *iera* bezeichnete, das heutige *Ir*land" [a large island […] that was referred to as holy, *iera*, present-day *Ire*land]; the *Ire-* in the name *Ireland*, Irish *Éire*, Old Irish *Ériu*, is reconstructed by Celticists and Indo-Europeanists as deriving from *⁺īwerijū*, which has received several interpretations, none of them being or containing the concept of holiness. We analyse the name as consisting of Phoenician *'iy* 'island' and Akkadian *weriu* 'copper', *'iy weriu* 'copper island' as a name for Ireland passing the *Realprobe*; cf. Vennemann (1998c). Cf. Wansborough (1996: 93–94 et passim) on Akkadian and Canaanite elements in the Mediterranean *lingua franca*.

147. *The Latin Library*, www.thelatinlibrary.com/avienus.ora.html (17 June 2016).

But from here[148] it is a two-day voyage to the Holy Isle –
this is what the ancients called the island.
It lies in the high sea, rich in grassland,[149]
and is far and wide populated by the Hierni.
However, nearby extends the island of the Albiones.
And the Tartessians were wont to trade
all the way to the coasts of the Oestrymnides.[150]
Also Carthage's colonists and the people living
between the Pillars of Hercules[151] visited these seas,
of which the Carthaginian Himilco maintains
that they can hardly be traversed in four months,
as he claims to have proved himself with his voyage.

Undoubtedly the *extera Europae* lay beyond the British Isles and were, for experienced navigators like the Carthaginian and Gaditan Phoenicians, once they were determined to reach this goal, easily reached by simply continuing sailing and rowing along the coast to what is now Germany and on to what was in antiquity Germania: present-day Denmark and southern Sweden. Clearly Himilco's description of all the extraordinary hindrances he claimed to have delayed his voyage could not, for Carthaginian readers of his report, refer to the much-traveled route between Cádiz and the Tin Islands but only to the still unknown waters between the Tin Islands and the *extera Europae*, i.e. Germania, even though to foreign, e.g. Greek and Roman, readers of the memoir they may have been meant to carry the more general warning. The overall conclusion can only be, in our view, that the goal of Himilco's mission was the exploration and – in parallel with Hanno's mission in

148. From the Oestrymnides (the Oestrymnic Islands), explained by most authors to be the peninsula of Brittany and islands off her coast.

149. Other translations have 'rich in land', 'with a vast surface', etc. Freeman (2001) writes 'rich in turf' (cf. "[the Irish] burned turf to warm themselves", p. 33). The top dictionary translation of Latin *caespes*, *caespitis* m. in Walde & Hofmann (1982: s.v.) and in Habel & Gröbel (1959: s.v.) is 'Rasen [lawn]'; the former also mention "spätl[ateinisch] 'Getreidefeld'" [Late Latin 'cornfield']). Perhaps therefore our translation captures the locally intended meaning best, even though Avienus uses the word less strictly in other places. Ireland has always been famous for its agriculture, and for its dairying in particular; she is bynamed "die Grüne Insel" [the Green Island] in German. – An alternative translation would be 'rich in farmland'.

150. The Oestrymnic Islands.

151. I.e. the Gaditans.

the south – the colonization of Germania.[152] There is no indication in the literature that this mission was not fulfilled.

3. Religion

3.1 Balder

The religion of the early Germanic people may be the most difficult area of scientific investigation of all aspects of Germanic life and culture, and we, the authors of this book, being trained in linguistics but not in comparative religion and mythology, are little qualified to either summarize it or criticize existing syntheses.[153] Fortunately, for our purposes, comprehensive knowledge of the Germanic pantheon and of the events taking place in it is not required; and that means both, knowledge of the Germanic religion as reconstructed by scholars of Germanic Studies and knowledge of the results of those studies on the part of the readers of this book. Every student of Germanic or Indo-European is aware of the fact that the early Indo-European cultures of, e.g., India, Greece, and Rome not only continue the language of the Proto-Indo-Europeans, though in regionally differently developed forms, but also their polytheistic religion with on average twelve main deities plus groups of further supernatural entities, again with regional differences as to specific functions, names, and events. And so it is for the Germanic culture: For the Germanic language to continue the Proto-Indo-European language with specific modifications is, of course, the accepted criterion for including the Proto-Germanic people and the more recent Germanic peoples in the Indo-European domain; and for the religion of the Germanic people we have the succinct characterization of an authority as maintaining Indo-European traditions (Derolez 1963: 16).

What we will do, therefore, is not describe Germanic religion in general but rather single out certain features which strike us – and hopefully will strike our

---

152. It should also be mentioned that Avienus' reference to the Holy Island (*sacram… insulam*, v. 107) inhabited by the Hiernans (*gens hiernorum*, v. 110) and to the Island of the Albionans (*insula albionum*, v. 111) as relating to Ireland and Britain is itself contested. E.g., Unger (1883: 117) seeks both locations on the Galician coast (Coelleira and Portocelo), Stichtenoth in his commentary (1968: 56) at the entrance to the Baltic Sea, i.e. in Germania, and on the southern coast of the Baltic Sea.

153. Important introductions to and surveys of the field we have consulted are the following: Grimm (1981) [1876–1877], Götzinger (1885); Golther (1895); Derolez (1963), de Vries (1970) [1956], Maier (2003); Simek (2003). – This chapter uses material from Vennemann (1997, 2004b, 2005).

readers – as un-Indo-European, inasmuch as they do not occur as such in the religions of other early Indo-European peoples but do occur in Mediterranean cultures, in some instances specifically in pre-monotheistic Semitic religion, including features that point to the Phoenicians and even directly to Carthage.

In doing so, we do *not* claim by any means that our attempts are entirely original. On the contrary: It is common knowledge, and has been at least since the early 20th century, that a number of features of Germanic religion have close correspondences in Mediterranean cultures, especially the Semitic religions before the rise of monotheism. We will simply cite a few passages from the first edition of the two-volume *Germanische Religionsgeschichte* of Jan de Vries, published in 1935 and 1937, a time under no suspicion of having been particularly friendly toward attempts to link Germanic culture to Semitic cultures.

> Zum Schluß müssen wir noch einiges über die heutigen Anschauungen auf dem Gebiete des germanischen Heidentums hinzufügen. Dieser Teil der Germanistik hat selbstverständlich die Strömungen der geisteswissenschaftlichen Forschung erfahren. […] Der Blick auf die außergermanischen Religionen ist geöffnet worden. […] Die Bedeutung der vorderasiatischen Kulturen für das Abendland hat die Forschung der letzten Jahrzehnte nachdrücklich betont, und man hat daraus auch für das germanische Geistesleben die Schlußfolgerungen gezogen. […] Dem hier gewiesenen Pfad ist G. Neckel in seinem großzügigen Baldrbuch [Neckel 1920] gefolgt, in dem er den Nachweis zu führen versucht, daß bedeutende Elemente des Kultes von Baldr und Freyr nicht mit dem aus den übrigen Überlieferungen zu erschließenden Charakter der germanischen Religion in Einklang stehen, sondern aufs deutlichste zu westasiatischen Anschauungen stimmen.
>
> (de Vries 1935: 89, unchanged in de Vries 1956: 73–74)

> ['Finally we have to add a few things about contemporary views in the area of Germanic heathendom. This part of Germanic studies has, of course, been subject to the trends of research in the humanities. […] Religions outside the Germanic world have come into view. […] The research of the last decades has emphasized the importance of the Near Eastern cultures for the Occident., and the conclusions from it have been drawn also for Germanic intellectual life. […] G[ustav] Neckel followed this very path in his ambitious Baldr book [Neckel 1920] in which he attempts to prove that significant elements of the cult of Baldr and Freyr do not harmonize with the character of Germanic religion that can be deducted from the other traditions but agree most clearly with West Asiatic beliefs.']

'Baldr and Freyr': The two gods are often mentioned side by side, as if they belonged to the same family of gods, namely the Vanir family, whereas in the traditioned-down mythology only Freyr belongs to the Vanir, while Baldr is a son of Odin's (see e.g. Schröder 1953: 329, 357). Following Neckel (1920), they are both compared to West Asiatic beliefs in the above de Vries quotation.

Schröder already in his early years was a defender of the view that certain traits of Germanic religion had their roots in the religions of the Near East.

> Dieser Zweifel [in the Oriental origin of certain traits of Germanic religion], der damals [1913] noch durchaus begreiflich war, ist m.E. heute nicht mehr berechtigt, nachdem die letzten Jahre eine ganze Fülle von Beziehungen und Berührungspunkten zwischen der germanischen Religion und den vorderasiatischen Religionen aufgedeckt haben. (Schröder 1929: 414)
>
> ['This doubt [in the Oriental origin of certain traits of Germanic religion], which then [in 1913] was still entirely understandable, is in my view no longer justified today, after a plethora of relationships and points of contact between the Germanic religion and the Near Eastern religions habe been uncovered in recent years.']

He there (p. 414) refers specifically also to Neckel 1920 and writes on the following page:

> Das Balderproblem ist durch die genannte Untersuchung G. Neckels wieder in Fluß gekommen. Der Grundgedanke allerdings, daß Balder östlicher Herkunft ist und mit Attis, Adonis, Osiris, Tamuz usw. zusammenhängt, ist nicht neu, aber Neckel hat diese These als erster eingehend zu begründen versucht, und wenn auch die Einzelbeweisführung z.T. verfehlt ist, so darf jedoch der Nachweis im ganzen als gelungen gelten. (Schröder 1929: 415)
>
> ['The Balder problem has gotten moving again through the investigation by G[ustav] Neckel just mentioned. The basic idea, however, that Balder has an eastern origin and hangs together with Attis, Adonis, Osiris, Tamuz etc., is not new. But Neckel was the first to try to thoroughly substantiate this thesis; and even if details of the line of argument are wrong, the proof may all in all count as successful.']

Schröder (1962: 348), referring to Almgren (1934) and, in a footnote, to Höfler (1951), also accepts the view that the Scandinavian Bronze Age rock carvings represent Near Eastern religious beliefs.[154] Meid (1992: 500) too recognized the mythological proximity of certain traits of Germanic religion to those Oriental beliefs, namely in the case of Freyr, but draws the conclusion that this is to be attributed to a substratal culture even though he correctly identifies Baal as a Semitic god.

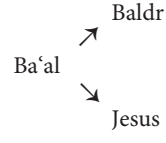
We will take up the Baldr motif below but would like to stress even here that it was a major weakness of all the orientalizing interpretations of the un-Indo-European traits of Germanic religion that their authors only considered various eastern

154. Cf. his very positive reception of Almgren (1926) in Schröder (1929: 401–403). The epitome of this continuing line of research is Jørgensen (1987), where an attempt is made to interpret sections of the rock carvings in Tanum (province of Bohuslän, Sweden) in terms of the Ugaritic Baal Cycle.

transcontinental land routes for a possible transmission of oriental culture to the Germanic north and that no-one reckoned with the Phoenicians of the West and with the West-Phoenician sea-trade to have carried out this mission. Similarly, we think Christian mediation, as suggested as a solution to explain the Oriental traits of the Germanic mythology by de Vries immediately following the passage quoted above is not cogent (see de Vries 1956: 74). Baldr is a dying god, and that is the only trait connecting him and Jesus of Nazareth. Constructing a cultural succession line of descent,

Baʿal → Jesus → Baldr

only works for the first step, Baʿal → Jesus, inasmuch as Jesus lived and died in a world in which the concept of a dying god, viz. of Baʿal son of ʿEl, was much alive: "In the East *Tammuz* and *Baʿal* are forerunners of Jesus Christ […]" (Wagner 1975: 16–17). However, it does not work for the second step, Jesus → Baldr, because while a people can of course convert to Christianity, it is hard to imagine reasons why they should want to integrate properties of the central figure of a distant, essentially monotheistic religion as one of many gods of their own established polytheistic pantheon. We agree with the 19th and early 20th century view that Baldr is Baʿal, but we reject the idea of Jesus as a mediating figure. In short, we see here not a succession but a bifurcation:



Baldr is a dying god – and that is the only property he shares with Jesus – not by any Christian mediation but because he is Baʿal, and Baʿal is a dying god.

> Wir können uns der Möglichkeit weitgehender Kulturzusammenhänge nicht mehr verschließen. Aber wie dieselben zu erklären sind, ist zur Zeit noch ganz unsicher. Die neuesten Untersuchungen über den Ursprung der Runenschrift – eine Frage, die man nach von Friesens Forschungen fast allgemein für endgültig entschieden glaubte – haben gezeigt, wie schwankend die Ansichten noch immer sein können.
>
> (de Vries 1935: 90; 1956: 74)

> ['We can no longer close our minds to the possibility of far-reaching cultural connections. But how these are to be explained is at present still entirely uncertain. The most recent investigations into the origin of runic writing – a question which, after von Friesen's [(1933)] research, was almost universally considered to have been decided for good – have shown how much views may still vacillate even nowadays.']

'We can no longer close our minds to the possibility of far-reaching cultural connections.' Nevertheless de Vries does not make any recognizable effort to incorporate Neckel's proposal into his own account of the Baldr myth or to subject it to a serious critical analysis but deals with it by suggesting 'Christian mediation'. If this is so, then naturally Neckel's comparisons sink to a level of limited importance. There are, of course, other ways out; the easiest one is assuming "typological parallels":

> Neckel's comparison of Baldr with Tammuz, Adonis, and Attis is also of limited importance (1920). Baldr emerges as part of a sizable group of dying gods, but his death needs no proof from other religions, while our understanding of the origin of the Scandinavian myth is not advanced by this comparison, for despite Neckel's analysis there is no certainty that the story of Baldr reached northern Europe from the East: perhaps we are dealing with a typological parallel.
>
> (Liberman 2004: 17–18)

We will here not shrug off those parallels among the myths of Baldr and of Tammuz, Adonis, and Attis but undertake an attempt to show that the Germanic Balder is identical with those Eastern gods not only in functional terms but also, and more importantly as far as we as linguists are concerned, in linguistic, namely etymological, terms. While the inability to provide a plausible scenario for the transmission of the Semitic myth of the dying god from Mesopotamia to Germania is the first major weakness of Neckel's approach to the Balder myth, the one criticized by de Vries, the failure to analyze the situation from an etymological point of view is indeed the second: Neckel declared *Balder/Baldr* to be a Germanic name, even though this is quite uncertain.[155]

---

155. The etymological connections of the reconstructible **baldraz* (only Old English poetic *bealdor* 'prince, hero' and Old Norse *mann-baldr* 'great man') with **balþaz* 'bold' does not fit particularly well semantically nor does it lead to any matches in the other Indo-European languages: (1) Balder is not a prince or a hero but a god, and he is nowhere described as bold; (2) the only generally cited phonetically similar word outside Germanic, Lithuanian *báltas* 'white', does not agree semantically and besides, belonging to a neighboring language, would not make **balþaz* Indo-European even if it were related. Even though he does not cite a single cognate in another Indo-European language, not even Lithuanian *báltas* 'white', Heidermanns considers the adjective a derivate of the Indo-European root **bhel(ə)-* 'to swell', a surprising etymological move. Seebold mentions Old Irish *balc* 'stark, mächtig' [strong, mighty], Cymric *balch* 'kühn' [bold], "doch ist das damit vorausgesetzte i[ndo]g[ermanische] **bhal-* seiner Lautstruktur nach auffällig und nicht weiter vergleichbar" [but the Indo-European **bhal-* thereby presupposed is phonologically conspicuous and not capable of further comparison]. The most convincing evaluation is Seebold's "Seine weitere Herkunft ist unklar" [Its more distant origin is unclear]; the word is marked as "Germanic" in Kroonen (2013), and thus lacks an Indo-European etymology. Indeed, such disparate attestation is the usual indication of a loan complex. Cf. Orel (2003: svv. **baldraz*, **balþaz*); Kluge (2011: s.v. *bald* [soon]); Heidermanns (1993: s.v. *balþa-* 'kühn' [bold]).

What Neckel and also de Vries did not realize is that the two weaknesses – point of origin of the Balder myth and etymology of the *Balder* name – are connected: Just as in antiquity no plausible land route led from Mesopotamia to Germania, not even via Thrace as assumed by Neckel, so no etymological route leads from the name of Tammuz, Adonis, or Attis to the name of Balder. But moving the point of origin from the East to the West promises a solution of both the geographical and the etymological problem: The dying god was part of the religion of the Phoenicians, who called him *Ba'al*, which means 'Lord', exactly as *'Adoni*, Hellenized Ἄδωνις (cf. Movers 1841: 169); and that includes the Phoenicians of the West, the Carthaginians. That was, of course, known in Neckel's days, and indeed much earlier. In the 19th century standard work on the Phoenicians, Movers' *Die Phönizier*, no doubt is left that Baal had all the properties required to compare him to Tammuz, Attis, and Adonis, and furthermore that Baal was indeed the same deity as Tammuz, Attis, and Adonis (see Movers 1841: 169, 184, 195). For the identification of Adonis and Tammuz see Movers (1841: 193, 195).

By moving the point of origin to the West, Neckel could have improved his theory on both accounts: Reconstructing a route to Germania would have become a lot less implausible, and the etymological problem of the *Balder* name would have become solvable: *Baal* looks very much like a building brick of *Balder*; it even looks identical to an alternative name of Balder, namely *Phol* of the Second Merseburg Charm which Neckel (1920: 242–245) treats in some detail.

Earlier in this chapter we argued specifically that the route along which the cultural connections between the Mediterranean and the Germanic world originated and were upheld for several centuries was that of the sea trade of the Phoenicians, in particular the Carthaginians. The Phoenicians are known to have carried their religious ideas to all regions they traded with (Movers 1841: 50). Movers (1941) fills many pages of his first chapter (pp. 1–55) with examples of this influence to prove his generalization.

Against the background of this religious impact in all areas of Phoenician influence, we will explain the name and function of Balder as those of the dying god of the Phoenicians carried to the Germanic people. And since religions do not travel without other traits of their embedding culture, witness for example the spreading of the Latin alphabet by the Christian missionaries in western Europe, the value of Movers' generalization will become especially clear for that other point raised by de Vries in the second quotation from his *Religionsgeschichte* (1956, 1957) above, the question of the origin of runic writing. The model case for such twofold influence is ancient Greece: The Greeks learned about the Phoenician gods from the Phoenician traders (and colonizers), which is most evident in the cult of Adonis (in

Greek Ἄδωνις, ← Phoenic. *ʾdn* 'lord', cf. Hebr. *ʾadōn* 'lord').[156] And they also learned from them the cultural technique of writing.[157]

We emphasize that our proposal is intended to explain specific features of Germanic, especially Norse, religion, such as the name of Balder/Baldr and various peculiar traits of the Vanir. We have nothing to say about the way general religious ideas, such as fertility cults as such, have reached the North, e.g. ideas expressed in the Bronze Age rock art of Scandinavia. They may very well have wandered north by land, namely with people typically holding such religious beliefs, the early agriculturalists.

3.2 The Vanir, one of two families of Germanic deities

The Germanic pantheon is populated by two families of gods and goddesses, the Æsir and the Vanir.[158] The Æsir, to whom the superior deity, the father of the gods, Woden/Wotan/Óðinn, belongs, give an Indo-European impression. The obvious exception is Baldr, who, judging by his properties, appears like a misplaced member of the Vanir. By contrast, the Vanir appear, by comparison, rather excentric and non-Indo-European. The following are twelve properties of the Vanir, over and above their being deities of fertility and wealth (a thirteenth is the partial Baal-hood of Freyr), that connect them – in part via the Insular Celtic world – with the Mediterranean, and with Old Semitic religion in particular:

1. The Vanir are tied to the sea: Njǫrðr wants to live by the sea, whereas his non-Vanir wife Skaði does not. Note also the peculiar re-interpretation of Tacitus's goddess Nerthus as the male god Njǫrðr, mirrored by the re-interpretation of Skaði – *skaði* 'damage, loss' is a masculine noun – as Njǫrðr's wife (cf. de Vries 1977: s.vv. *skaði* 1 and 2), whose size as the daughter of a giant may likewise point to her original maleness. Like the Vanir, Nerthus had a special relationship to the sea: Her chariot is kept in a sacred grove on an island of the ocean, and she is represented with a ship, Her attributes are the sea and navigation, just like those of Njǫrðr (Derolez 1963: 138).

---

156. "Αδωνις = Baal" (Krahmalkov 2000: s.v. 'DNY). *Baʿl* too means 'lord'.

157. We are not suggesting that the reasons for the introduction of this cultural technique were the same in both cases. The Christian missionaries brought writing as part of practicing their book religion, and it spread from the spiritual into more practical domains. The Phoenicians brought writing as part of practicing commerce, and it spread from there into other cultural domains.

158. Here, as with all aspects of Germanic religion, Simek (2006) has served as an excellent guide and source of information. The following points concerning the Vanir are taken over from Vennemann (1997).

2. The Vanir are connected to sea-faring: by Njǫrðr's domicile Nóatún 'Ship Town' and the ship Skíðblaðnir of his son Freyr.
3. The Vanir, deviating from Indo-European social rules, practice marriage between brother and sister, witness an earlier marriage of Njǫrðr from which the siblings Freyr and Freya sprang.
4. The Vanir have a conspicuous relationship to sexuality, indicated e.g. by the Priapic statue of Freyr/Fricco in Uppsala and the lascivious chants accompanying the sacrifices performed there.
5. The Vanir stand out by a kind of sexuality that appears incompatible with the Indo-European component of Germanic culture, namely by Freyja's whoring, even – according to Loki's allegation – with her own brother Freyr.
6. The peculiarities in (1), (3), (4), and (5) appear to be mythological reflections of traits of a matrilinear organization that were no longer understood.
7. The Vanir are deities of war: When riding into battle, Freyja [!] shares the fallen warriors with Óðinn, and her domicile's name is Fólkvangr, i.e. 'Warrior Field'; and Freyr is apostrophized as fólkvaldi goða, i.e. 'leader of the gods in war'.
8. By way of (5) and (7), Freyja shares at least two properties with the Irish goddess and queen Medb: Both are highly promiscuous, and both are goddesses of war. This combination is not Indo-European but Semitic: The most important Babylonian goddess, Ishtar, whose astral aspect is symbolized by the planet Venus, is, on the one hand, a goddess of love and sexuality and, on the other, a goddess of war. Also her Palestinian-Syrian counterpart, Astarte/Aschtoret, was both a goddess of fertility and of war.
9. A curious attribute of the Vanir is the cat: Freyja rides to Baldr's pyre on a chariot drawn by a team of cats. The cat plays no role in Indo-European antiquity. However, the cat-drawn chariot becomes understandable if the Vanir are understood as an originally Mediterranean family of deities, namely as a Nordic reflex of a Mediterranean motif: the chariot drawn by lions. The Babylonian goddess Ishtar's regular attribute is the lion; she is once depicted riding on a chariot drawn by seven lions (Guirand 1959: 57). As for Astarte, her Phoenician equivalent, her sacred animal is also the lion, just like that of Ishtar (Lipiński 1992: s.v. Astrarté).[159]

---

159. This had already been seen by Neckel (1920: 51, 169): "Freyjas Katzengespann […] Motiv […] sein Zusammenhang, wir dürfen sagen: seine Identität, mit dem Löwengespann der Kybele ist evident" [As for the motif of Freyja's cat chariot, its connection – we may say: its identity – with the lion chariot of Kybele is evident]. Neckel also formulated this as an equation: "die Gleichung nordische Katzengöttin = asiatische Löwengöttin" [the equation Nordic cat goddess = Asian lion goddess]. But we may dismiss the interpolation of the Thracian goddess Kybele: The lion was also an attribute of Ishtar, whose counterpart in the Germanic pantheon was Freyja.

10. Another curious attribute of the Vanir is the pig: Freyr's chariot is drawn by the boar Gullinborsti, and Freyja rides on Hildisvíni; in her role as fertility goddess and in sacrificial contexts Freyja is also named *Sýr* 'sow'. In the Insular Celtic world the pig plays a singularly important role in animal husbandry, cult, and the arts. This cultural trait appears to have been adopted from the pre-Indo-European substratum: One of the three famous swineherds of Britannia was Drystan/Tristan, which may reflect a special relationship of the Picts to the pig. All of this agrees well with the interpretation of the word for the male breeding pig in some of the West Indo-European languages, PGmc. $^{+}$*ebura-* m. (OE *eofor*, G *Eber*, etc.), Lat. *aper*, *-ī* 'boar' (also Umbr. *apruf* [< $^{+}$*apruns*, acc. Plur.] 'boar'), Latv. *vepris*, OCS *veprĭ* m., as a loan reflex of Semit. *'-p-r* 'boar' (Arab. *'ifr* 'boar, piglet', Akkad. *appâru* 'wild pig'), cf. Brunner (1969: no 340), Vennemann (1995: §7.5), Simms (2002) cf. Chapter 4.
11. The Vanir, driven by their greed for gold personified in the sorceress Gullveig (*gull-* < PGmc. $^{+}$*gulþa-* 'gold'), cause what the Germanic people remembered as the very first war. This "war of the Vanir" may be the mythological recollection of a real war event: first, an invasion of the Vanir people from the sea into the land of the Æsir people, the intruders taking away land and booty; then, an attempt of the Æsir to invade what was now the land of the Vanir, thwarted by the vigilance of the Vanir but resulting in extended destructive fighting; finally, a peace treaty secured by an exchange of hostages.
12. There exists an amazing parallelism between Baldr, the most Vanir-like of the Æsir, and also Freyr as the chief god of the Vanir, on the Germanic side, and the Oriental gods Ba'al, Tammuz (Sumerian Dummuzi), Adonis, Attis, and Osiris: They are all dying and, originally, non-resurrecting gods (cf. Schier 1995a, b). The parallelism extends to what may be called the matrilinear triangle of (i) god, (ii) his wife and/or sister, and (iii) the fighter (death) killing the god (to gain his wife/sister):

    Freyr – Freya – Surtr
    Baldr – Nanna – Hǫðr; Balderus – Nanna – Høtherus (Saxo Grammaticus)
    Ba'al – Anat – Mōt (Ugaritic Ba'al cycle)
    Osiris – Isis – Seth (Egypt)

In sum, these various attributes of the Vanir suggest that they are the mythological reflection of a prehistoric intrusion of Mediterranean, namely Semitic seafarers into the territory of the Indo-European pre-Germanic world.

3.3 Phol and Balder

In this section we will show that the origin of the Mediterranean seafarers whose mythological reflection we see in the Vanir family of deities can be defined even more narrowly as Phoenician, namely Carthaginian, on religious grounds.

The key to the problem lies in a text which all scholars dealing with the Baldr myth have considered but few have paid the philological attention it deserves: the *Zweiter Merseburger Zauberspruch* [Second Merseburg Charm].[160]

3.3.1 *Phol and Balder: The evidence*

The following is the text of the (mostly) Old High German Second Merseburg Charm (Fischer 1966: 17 and reproduction 16a), with the occurrences of *Phol* and *Balder* highlighted:

> **Phol** ende uuodan uuorun ziholza duuuart
> demo **balder** es uolon sinuuoz birenkict
> thubiguolen sinhtgunt . sunnaerasuister
> thubiguolen friia uolla erasuister thu
> biguolen uuodan sohe uuola conda
> sosebenrenki sose bluotrenki soselidi
> renki ben zibena bluot zibluoda
> lid zigeliden sosegelimida sin .

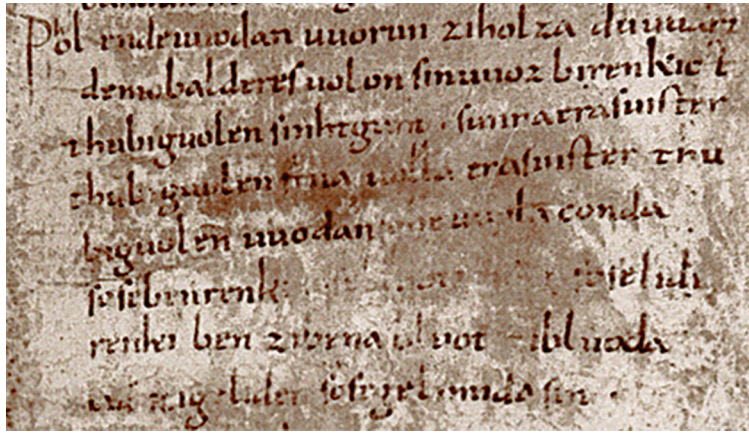


Figure 54. The second Merseburger charm

160. This section is based on Vennemann (2004; 2005).

The text is usually presented in the handbooks in the following "poetological" arrangement (Braune & Ebbinghaus 1962: 89), with reconstructed verse lines:

> **Phol** ende uuodan uuorun zi holza.
> du uuart demo **balder**es uolon sin uuoz birenk*it*.
> thu biguol en sin*th*gunt, sunna era suister;
> thu biguol en friia, uolla era suister;
> thu biguol en uuodan, so he uuola conda:
> sose benrenki, sose bluotrenki,
> sose lidirenki:
> ben zi bena, bluot zi bluoda,
> lid zi geliden, sose gelimida sin.
>
> ['Phol and Wodan went to the forest.
> Then Balder's horse sprained its foot.
> Then Sinthgunt the sister of Sunna charmed it,
> then Frija the sister of Volla charmed it,
> then Wodan charmed it, as he was well able to do.
> Be it sprain of the bone, be it sprain of the blood,
> be it sprain of the limb:
> Bone to bone, blood to blood,
> limb to limb, thus be they fitted together.'][161]

The passage of the charm that will be discussed here is the first two lines:

> **Phol** ende uuodan uuorun zi holza.
> du uuart demo **balder**es uolon sin uuoz birenk*it*. […]

3.1.2 *Phol and Balder: Twelve observations*

1. *Phol* stands before *Wodan*. Therefore, Phol must have been an important god at the time when the charm originated. He is likely not to have ranked below Wodan, who was presumably the highest god of the Germanic peoples. This is highlighted also by Seebold (2015: 263) and marked as significant problem.

   > Das Beunruhigende ist dabei, dass *Phol* hier in einer Aufzählung vor Wotan steht, was ganz ungewöhnlich ist. Vor dem Namen des Götterfürsten kann sonst nur der Name des anderen Hauptgottes, Donar, nordisch Thor, stehen.
   >
   > ['What is disquieting about this is that *Phol* here stands before Wotan in an enumeration, which is quite unusual. Only the name of the other main god, Donar, Norse Thor, can stand before the name of the prince of the gods.']

161. The translation is Bostock's (1955: 19–12).

2. Phol is Balder. This was Jacob Grimm's view and has been that of many other scholars since then. In Grimm's words:

> Ich bin bei dieser ganzen untersuchung davon ausgegangen, daß *Phol* und *Balder* in dem Merseburger spruch ein und dasselbe göttliche wesen bezeichnen […]: der cultus des gottes muß schon darum sehr im volk verbreitet gewesen sein, weil ihn das gedicht hintereinander mit verschiednen namen nennt, ohne misverstand zu befürchten. […] Noch mehr aber fordert der innere zusammenhang des liedes selbst Phols und Balders identität, denn es wäre seltsam, daß Phol im eingang genannt würde, ohne hernach in betracht zu kommen. (Grimm [1981]: I.189, n. 1)
>
> ['Throughout this entire investigation I went by the assumption that *Phol* and *Balder* in the Merseburg charm designate one and the same divine being […] The cult of the god must have been widespread among the people for the simple reason that the poem names him with different names in close succession without fearing misunderstanding. […] However, the identity of Phol and Balder is required even more strongly by the internal coherence of the song, because it would be peculiar if Phol were mentioned at the beginning without playing any role later on.']

There are alternative views, as is acknowledged in Vennemann (2005: §4), "Weitere Ansichten zu Phol und Balder" [Further opinions on Phol and Balder]. But we consider it valuable support for our interpretation that important scholars of the past have made this identification on the level of reference, even without comprehending the partial identity of the names on the etymological level. The dilemma is most clearly formulated by Schröder (1953: 166):

> Hieraus ergibt sich weiter zwangsläufig, daß wenigstens der Verfasser des zweiten Merseburger Spruches Balder und Phol als zwei Namen ein und desselben Gottes betrachtet hat. – Damit aber erhebt sich die eigentliche und schwierigste Frage, wie es zu dieser Gleichsetzung gekommen ist; denn es ist immerhin höchst ungewöhnlich, einen Gott in zwei unmittelbar aufeinander folgenden Versen mit zwei verschiedenen Namen zu benennen. Oder auch anders: es geht letzthin um die Frage, wie Balder in diesen Spruch hineingeraten ist, – vielleicht doch, daß nicht nur eine zufällige und willkürliche Namengleichsetzung vorliegt, sondern daß es seine tieferen Gründe hat.
>
> ['This of necessity leads to the conclusion that at least the author of the second Merseburg charm considered *Balder* und *Phol* two names of one and the same god. – This however raises the real and most difficult question of what it was that led to this equation; it is, after all, most unusual to name a god in two successive verse lines with two different names. Put differently: The ultimate question is how Balder wound up in this charm. It seems possible that we are not merely dealing with an accidental and arbitrary onomastic equation; rather the reasons may lie deeper.']

Our theory reveals this deeper explanatory layer: The onomastic equation is not merely one of reference but also one of form: *Phol* and *Balder* are not really 'two different names' but two reflections of one and the same Semitic theonym.

3. Germanic religion contains various Old Semitic traits, as pointed out above. This was known in the 19th and early 20th century but was then "forgotten". In particular the Germanic Baldr is, like the Semitic Baʿal, a dying god. The dying god that scholars of Germanic religion have been most familiar with is Jesus of Nazareth. This is the reason why they have tended to see Christian influence in the myth of the death of the Old Norse god Baldr. We see the origin of the similarities between Baldr and Jesus of Nazareth in the fact that both of them stand in the tradition of the Old Semitic god Baʿal (see Schier 1995a; and especially Schier 1995b on the concept of a dying god in the Old Norse and Near Eastern religions).
4. The first word of the charm, *Phol*, has been considered extremely difficult to explain. The problem is that it is a hapax legomenon of the most undesirable kind: (1) It is preserved in a single text of which only a single exemplar exists, and (2) there are no immediately comparable forms in any of the Germanic languages. Nevertheless we are not entirely helpless; the form of the word itself as well as the text in which it stands provide some clues that lead to an interpretation.
5. The text is for the most part Old High German, probably Eastern Franconian, as shown in particular by the reflexes of the High Germanic ("Second") Consonant Shift, *z* for Gmc. ^{+}t in *zi* 'to', *holza* 'wood, forest', and *uuoz* 'foot', and by the diphthongization of $^{+}\bar{o}$ in *uuorun* 'went, fared' (Gmc. $^{+}f\bar{o}run$), *bluot* 'blood', and the class VI preterite *biguol*, probably also in *uuodan* 'Wodan, Woden'. There occur no specifically Bavarian or Alemannic features such as *p* for *b* or *c* (*k*) for *g*. But the Old High German of the charm is not very good; it is an imperfect adaptation of a Low German original, recognizable by a number of Low German features that were left unaltered by the translator. At the time the Old High German text was written down (10th century), the Germanic ^{+}d's in *ende*, *uuodan*, *balder*, *bluoda*, *conda*, and *gelimida* should all be represented as OHG ^{+}t. Also *e* in *ben* for OHG *bein* 'bone, leg' most likely stands for Low German /ē/; $^{+}ai > \bar{e}$, also $^{+}au > \bar{o}$, are rule-governed monophthongizations in Low German, but *e* for expected *ei* (< ^{+}ai) is only an occasional spelling in Old High German manuscripts (Braune 2004: §44, n 4). Hence the default interpretation is that *ben* is Low German *bēn* which escaped the High Germanization process.
6. Looking now at the first word of the poem, *Phol*, we immediately notice the initial labial affricate /pf/, spelled <pf>, the hallmark of all Upper German dialects, including Eastern Franconian. Many scholars, among them recently Schaffner (2002) and Seebold (2015: 269), interpret this *ph-* as a representation of *f-*.

Apparently, their reason is that they find no interpretation for the reading *p^{f}ol*, whereas for the assumed **fol* or, as in Seebold's case, apocopated **folla*, they can at least construe a relationship to the *uolla*, /folla/, occurring later in the charm. But that appears philologically problematic, for two reasons. First, the regular spelling for OHG /f-/ in manuscripts is *f-*, from the 9th century onward increasingly *u-* because /f/ was lenited and positionally voiced into /v/ (cf. Braune 2004: §138); note the regular *u-* of the charm (except initially before a consonant): *friia* but *uuorun* < Gmc. $^{+}$*fōrun*, *uolon* < Gmc. $^{+}$*fulōn*, *uuoz* < Gmc. $^{+}$*fōtu-*. Evidently a name corresponding to *uolla* would in this charm have been written *uol*, as a first word *Uol*, not *Phol*. Second, the scribe, translating from his Low German copy, first copied down *Pol*, a name which he very probably did not know. The name is a hapax, which suggests that it was not – or not any more – in regular use when it was recorded. Only then did he notice that *Pol* may have been adequate in Low German but not in High German; so he corrected *Pol* into *P^{h}ol* by adding a small superscript *h* to the *P* to indicate the affricate nature of the initial labial plosive in Old High German (see Figure 55 below). Even without this unequivocal specific history of this particular word token, philologists would have no freedom to interpret an Old High German *ph-* writing as meaning anything but the labial affricate /p^{f}-/; *ph-* is (beside *pf-* and regional *f-*) the regular Old High German spelling for the affricate /pf/ (Braune 2004: §131). It is thus philologically problematic – we think: incorrect – to interpret the Merseburg *P^{h}* as /f-/. This manoeuvre, which he attributed to Wilhelm Wackernagel, was already rejected by Jacob Grimm (Grimm [1981]: I.189, n 1).

Figure 55. *Pol* corrected (High-Germanized) into *Phol* in the second Merseburg charm

Some scholars have amended *Phol* into *Fol* not only for semantic reasons but also for formal reasons. For example, Schröder (1953: 163) writes: "Was nun *Phol* betrifft, so kann der Name nach Ausweis des Stabreims (auf *vuorun*) nur ein *Vol* (*Voll*, *Foll*) meinen. [As to *Phol*, the name can only mean *Vol* (*Voll*, *Foll*), as shown by the alliteration (with *vuorun*).] This argument, which has been repeated until quite recently, rests on a wrong assumption and is false (cf. Vennemann 2005: 709–710):

> Mit dieser Deutung [viz. *Phol* as *Pfōl*] verliere ich die genaue Alliteration. Allerdings ist die Zeile als Vers so und so defekt; denn das Finitum *uuorun*, d.i. [fōrun] bzw. [fuorun], ist als Präteritum des Verbums der Verbindung *ze holza faran* 'in den Wald reiten (bzw. "fahren")' bei natürlicher Prominenzverleihung ohnehin seinem Spezifikator *ze holza* untergeordnet und insofern nicht alliterierensfähig.[162] Die Form *Phol* so zu deuten, daß sie mit *uuorun* alliteriert, während *uuorun* selbst in seiner Umgebung gar nicht alliterieren kann, scheint mir verfehlt. Bedenkt man ferner, daß der Schreiber zunächst ohnehin <Pol> schrieb, daß also mutmaßlich seine Vorlage $^{+}$<Pol> enthielt, erweist sich jeder Gedanke an eine Alliteration mit *uuorun* als müßig.
>
> ['With this interpretation [viz. *Phol* as *Pfōl*] I lose the exact alliteration. However, the line is, as an alliterative verse, defective anyway: If relative prominence is assigned in a natural way, the finite verb *uuuorun*, i.e. [fōrun] or [fuorun], is, as a preterite of the verb in the combination *ze holza faran* 'to go (or ride) into the forest', subordinate to its specifier *ze holza* and hence not capable of alliterating. Interpreting the form *Phol* in such a way that it alliterates with *uuorun* while *uuorun* itself is incapable of alliterating in its environment seems self-defeating. Considering furthermore that the scribe initially wrote <Pol> anyway, and that therefore his exemplar presumably contained $^{+}$<Pol>, all pondering over alliteration with *uuorun* proves to be pointless.']

Note that we are not saying that *uuorun* is incapable of alliterating because it is a finite verb, or a finite verb in the third ictic position; a finite verb not specified by a rhythmically more prominent specifier is perfectly able to be the dominant alliterating lift. As an example consider the following line from *Beowulf*: [*ðær þū findan miht*] ***s**innigne **s**ecg*; *s̲ēċ, ġif þū dyrre*[163] '[where find you may] the sinful slob; seek, if you dare'. Here the finite verb form (imperative singular) ***s**̲ēċ* 'seek!' forms a clause of its own and easily bears the primary stress of the verse, defining its alliteration pattern.[164]

---

162. Cf. Heusler (1925: 110) (1925: 110): "Der Abvers, der die Stabform **x a** meidet, meidet auch den Inhalt v n." [The second half-line, which avoids the alliteration pattern **x a**, also avoids the content v n.] – Explanation of symbols (pp. 100, 107): **x**: stabloser Iktus [non-alliterating ictus], **a**: stabender Iktus [alliterating ictus]; v, die schwächere Klasse: Verbum finitum, Gradadjektiv, steigerndes und Zeitadverb [the weaker class: finite verb, relative adjective, comparative and temporal adverb], n, die stärkere Klasse: Nomen, gehaltvolles Adverb [noun, contentful adverb].

163. V. 1379, as amended by Pascual (2015), and also by several editors of *Beowulf*; the manuscript has *felasinnigne*.

164. Pascual formulates a rule according to which a finite verb is capable of alliterating if it is in the third lift positions of the verse. But it is the other way around: A finite verb is capable of occupying the third lift positions of a verse if it is capable of alliterating, i.e., carries sufficient natural prosodic prominence ("stress") within its half-line. A native speaker of Old English would know that *sēċ* was the prosodically strongest syllable of its verse. By contrast, *uuo*(*run*) is too weak

There are other attempts to "improve" the first line of the Second Merseburg Charm (see e.g. Gutenbrunner 1944: 1; Rosenfeld 1973: 9). However, all suffer from fatal problems.

7. We suggest a straightforward interpretation for the Merseburg *Phol*, taking first of all the form at face value and then reconstructing a (pre)-Proto-Germanic form on the basis of the relevant sound laws of the language. First, undoing the Second Consonant Shift we arrive at the written form *Pol* which, as can be seen in Figure 55, was actually what the scribe first wrote down anyway, probably copying from his Low German exemplar. Second, undoing the First Consonant Shift (Grimm's Law) we arrive at *b-l*, which raises the question what the *-o-* between the labial and the liquid stood for, namely whether it was short or long. Since the scribe most likely did not know the name, all he could do was copy the vowel he saw, which was simply the letter *o*. Had he suspected it to be long he would probably have adapted it as *uo*; but he had no basis for this suspicion. Applying the sound laws resulting in a vowel written *o*, the only possible sources are: /u/ before a non-high vowel in the next syllable if the *o* was short; otherwise /ō/ or /ā/, namely if the *o* in $^{+}$*Pol* was long. Since there is no evidence for a second syllable in *Phol*, assuming a lost lowering vowel would be hypothetical. Therefore, a more direct reconstruction of the pre-Germanic etymon for *Phol* is *Bōl* or *Bāl*. Which of the two is more likely? The text itself suggests an answer: Phol and Balder are the same deity, which suggests that the names may not be independent of each other either. Indeed, *Bāl* is, except for the vowel length, contained in *Bal-der* as an essential part – as *the* essential part, as will become clear farther below. Thus, the combined evidence and suggestions of the text point to $^{+}$*Bāl* as the pre-Germanic etymon of *Phol*. *Bāl* is, of course, not an Indo-European deity; also the name, beginning with *b-*, is unlikely to be Indo-European because few if any Proto-Indo-European words begin with *b-* (the "Labial Gap"). But Bāl, earlier *Ba'l* and *Ba'al*, in modern orthography usually *Baal*, is a Phoenician god. – The following is the Germanic name's linguistic derivation:

---

prosodically to form the third lift – and thus to alliterate – within *Phol ende Uuodan uuorun ze holza*. This by itself renders the Old High German verse defective. To rescue it as an alliterative long-line, stronger repairs are necessary than the change of *Ph-* into *F-*, e.g. assuming an old *w*-based exemplar such as $^{+}$*Pōl endi Wōdan tō widiu fōrun*. The High Germanizing scribe would have modernized what was to him syntactically and lexically inadequate: syntactically because the word order had changed from verb-late to verb-second in declarative clauses, and lexically because *witu* 'wood' no longer could be used to mean 'forest'.

Punic *Bāl*	→	pre-PGmc. $^{+}$*Bāl*	(religious borrowing)
	>	Gmc., Low G $^{+}$*Pōl*	(Grimm's Law, pre-Gmc. $^{+}\bar{a}$ > PGmc. $^{+}\bar{o}$)
	>	OHG <P^{h}ol>	(scribal application of the Second Consonant Shift to Low German <Pol>)

8. That *Phol* is the High German form of the Phoenician theonym *Baal* is not a new proposal. It was published by John Loewenthal (1925), cf. Vennemann (2004: 445, n 5). Recent work on the myth of Balder, even work specifically dealing with *Phol* and *Balder* in the Second Merseburg Charm, leaves this interpretation unmentioned, even though it is formally accurate and identifies *Phol* as a theonym, as required by its context.
9. The proposal that Phol is Baal solves the problem formulated in 1), namely that Phol must be a very high-ranking Germanic god because of his position before Wodan. Baal was not simply one of several gods of the Phoenicians but the most important one. He is a mighty weather god and as such a god of fertility, but also a powerful warrior who even defeats the Sea (God Yam) and goes to the Netherworld to battle against Death (God Mot), who however defeats him. To the Phoenicians Ba'l, son of El, is the most important of all gods (see especially Green 2003: 190–208). As the most important god of the Carthaginians of Pre-Germania he naturally became one of the most important gods in a hybrid religion created and adopted by the local Pre-Germanic population. Although Wodan/Óðinn gained in importance and became the leading god in the Æsir family, Phol and Wodan – still in this order – were the two highest gods in Germanic religion. This is exactly the order we find acknowledged in the Second Merseburg Charm as a text originally belonging to traditional oral literature. This is consistent with the interpretation that Phol was the leader of the Vanir, just as Wodan/Óðinn was the leader of the Æsir. As the power of the Vanir faded, the Baldr of Norse religion (Phol is Balder, who is the West Germanic manifestation of Baldr) was recruited into the increasingly dominant Æsir family and demoted there by making him a son of Óðinn; even as a member of the Æsir family Baldr is described in the books as the most Vanir-like of all the Æsir. His ownership of the ship Hringhorni may still point back to his Vanir background. Phol/Balder's role in the weakened Vanir family is taken over by Freyr, son of Njǫrðr. More precisely, he is doubled, becoming Baldr son of Óðinn in the Æsir family and Freyr son of Njǫrðr in the Vanir family. This duplication is stressed by the semantic identity of the names: *ba'l* means 'lord' in Phoenician (as in Hebrew), and *freyr* originally means 'lord' in North Germanic.[165] Hence *Freyr* is simply a loan translation of *Ba'l*/*Phol*/*Baldr*.

165. The masculine and feminine counterparts of *freyr* and *freyja* in West Germanic (German) are *frō* 'lord' (preserved in *Fron(dienst)* 'work for the feudal lord, socage' and *Fronleichnam* '(the

10. Phol is Balder, and Phol is Baal. So we know who Balder *is*: Balder is Baal. But how are the details of his *name* to be explained? Simek (2006: s.v. *Balder*); Lindow (1997: 27–28) and de Vries (1977) all consider the word to be etymologically obscure. We follow the proposal made in Vennemann (2004, 2005). We already made a suggestion earlier on concerning the *Bal-* part of the name: It is likely to be a variant of *Phol*, namely of its pre-Germanic form $^{+}$*Bāl*. So then what is *-der*? Baal is well known in Phoenician studies to have been by-named with a variety of epithets (cf. Lipiński 1992: s.vv.), which in Phoenician, a rather consistent head-initial language, invariably follow their head noun *bʿl* 'lord'; e.g.:

Bʿl Ḥmn, *Baʿl Ḥamon*	'Lord of Amanus'
Bʿl Ṣpn, *Baʿl Ṣapon*	'Lord of Saphon'
Bʿl Šmm, *Baʿl Šamem*	'Lord of the Skies'
Bʿl ʾdr, *Baʿl ʾAddīr*	'Mighty Lord'

The last of these by-names is pertinent to our question: While it is also attested at Byblos, *Bʿl ʿdr* became most popular in North Africa, specifically among the Carthaginians, where well-studied reductive Punic sound-laws turned the original *Baʿl ʿAddīr* into *Baliddir* and finally into *Baldir*. Both *Baliddir* and *Baldir* are attested in Latin inscriptions, i.e. written not only with the consonants, as in Phoenician inscriptions, but also with the vowels:[166]

Phoenic. *Baʿl ʿAddīr*	> Punic *Baʿl ʾIddīr*[167]
> Phoenic. *Baʿl ʾAddīr*[168]	(Carthaginian inscriptions)
> Punic *Baldir*[169]	(Carthaginian inscription)
→ Gmc. $^{+}$*Baldr-*[170]	(religious borrowing)
OHG *Balder*	(Second Consonant Shift)[171]

Feast of) Corpus Christi', lit. "Lord's corpse") and *Frau* (OHG *frouwa*) 'lady'. In Gothic *frauja* means 'lord'.

166. Important publications for the study of Phoenician, and of Punic in particular, are Segert (1976); Friedrich & Röllig (1999), Krahmalkov (2000, 2001) for Late Punic Jongeling & Kerr (2005).

167. By regressive vowel assimilation, cf. Jongeling (1985); Friedrich & Röllig (1999: § 93).

168. By weakening and loss of the "laryngeals" ʿAleph (') and ʿAyin (ʿ), cf. Friedich & Röllig (1999: §§29, 31).

169. By Punic syncope between syllables carrying secondary and primary accent (cf. Friedrich & Röllig 1999: §98).

170. Orel (2003: s.v.) reconstructs **balđraz*.

171. The Second Consonant Shift affricates $^{+}$*p-* but does not change $^{+}$*b-* (except for fortition to *p-* in Bavarian and Alamannic).

The *Corpus Inscriptionum Latinarum* (CIL VIII, Mommsen 1881) records the following inscriptional attestations of *Baliddir* and *Baldir*, three from Sigus near Constantine (Algeria), the Punic Kirtha and Roman Cirta, and one from Aïn Kila bu Seba near Guelma, the Roman Calama:

> *Deo patrio Baliddiri Aug[usto] sacrum […]* [To Father God (or: to the God of the Fatherland) Baliddir (this) sanctuary […]] (CIL VIII.Suppl.2, 19121)
>
> *Baliddiris Aug[usti] sancti patrii dei statuam […]* [(This) statue of the Holy Father God (or: of the Holy God of the Fatherland) Baliddir Augustus […]] (CIL VIII. Suppl.2, 19122)
>
> *(D)eo sancto (Ba)liddiri*[172] [To the Holy God Baliddir] (CIL VIII.Suppl.2, 19123)
>
> *Baldir[i] Aug[usto] sacrum […]* [To Baldir Augustus (this) sanctuary […]] (CIL VIII.1, 5279)

The editors write with regard to the last inscription: "Numen alibi non nominatur" [The deitiy is not mentioned elsewhere]. But in CIL VIII.Suppl.2, 19121 ("*Baldir Augustus* iam prodierat n. 5279" [Baldir Augustus had already appeared in no. 5279]) and since then, *Baldir* has been equated with *Baliddir*, this in turn with *B'L 'DR* ("*Baliddir* cum explicandum sit *B'L 'DR* significat *dominus potens*" [*Baliddir* inasmuch as it is to be explained as *B'L 'DR* means 'mighty lord']). We have inserted the dative ending *-i* (*Baldir-i*) on the evidence of the *Baliddir* inscriptions. – A further *Baliddiri* dedication was discovered close to Aïn Guettar (Guettar el Aiech, near Constantine) in 1966 (see Gascou & Guéry 1989: 152–154 with illustration):

> *Baliddiri Aug[usto] sacrum […]* [To Baliddir Augustus (this) sanctuary […]]

The *B'L 'DR* dedications in Phoenician are reproduced and discussed in Donner and Röllig (1966/1968: nos. 9B,5; 112,2–3; 115,2; 138,1; and 162,1 [there *BL 'DR*]).

11. Are there functional similarities between Baldr and Ba'l 'Addīr? Ba'l 'Addīr is described as follows:

> Il y apparaît comme un équivalent de →Baal Hamon [sic, for *Ḥamon*] […], dont le nom peut même être suivi de l'épithète 'roi puissant' […] ou 'seigneur puissant'. […] Si B.A. [Baal 'Addīr] est identique à Baal Hamon, il est normal qu'il ait un caractère agraire et, par conséquent, chthonien. (Lipiński [ed.] 1992: s.v. Baal Addir)
>
> ['He appears there (in enumerated inscriptions) as an equivalent of Baal Ḥamon […], whose name may itself be followed by the epithet 'mighty king' […] or 'mighty lord'. […] If Baal 'Addīr is identical with Baal Ḥamon, it is normal that he has an agrarian and, as a consequence, chthonic character.'][173]

---

172. The letters in parentheses and the rest of the inscription are destroyed.

173. Cf. also Février (1949); Ribichini (1986).

As to Baldr, Simek (2006: s.v. *Balder*) writes:

> Der Tod B[alder]s und seine Wiedererstehung nach den Ragnarök […] haben […] zu einer weithin akzeptierten Deutung des B[alder]mythus als Tod und Wiedererweckung eines Vegetationsgottes geführt. […] Allerdings darf man dabei nicht übersehen, daß im eigentlichen B[alder]mythus B[alder] eben nicht zu den Lebenden zurückkehrt, und daß die Vorstellungen vom zyklischen Leben eines Vegetationsgottes im Germanischen sonst eher fremd zu sein scheinen.
>
> ['The death of Balder and his resurrection after the Ragnarök […] have […] led to a widely accepted interpretation of the Balder myth as death and reawakening of a god of vegetation. […] However, it must not be overlooked that in the actual Balder myth, Balder in fact does not return to the living, and that concepts of a cyclic life of a god of vegetation are otherwise rather alien to Germanic.']

Derolez (1963: 155) speaks of "der Tatsache, daß Balder in der germanischen Götterwelt allein steht" [the fact that Balder stands alone within the entire Germanic pantheon]:

> Man hat ihn häufig mit vorderasiatischen Fruchtbarkeitsgöttern wie Adonis in Beziehung gebracht und dabei mehr oder weniger deutlich durchblicken lassen, man halte Balder für eine von dort übernommene Gottheit. Balders Tod wäre nach dieser Anschauung eine Phase im Lebenskreise des Vegetationsgottes: so wie das Leben in der Natur beim Anfang des Winters abstirbt, so würde auch der Gott sterben, um im Frühling mit dem neuen Leben wieder zu erstehen. Nun ist es tatsächlich auffällig, daß der Tod von Balders vermeintlichen orientalischen Verwandten mit großen Trauerzeremonien gefeiert wurde, und daß Balder von allen Lebewesen beweint werden mußte. Und dann ist da noch der Name seiner Gattin Nanna, in dem man einen Nachklang des babylonischen Namens Nana zu entdecken glaubt. Dem steht aber wieder gegenüber, daß Balder nicht vor dem Ende der Welt wieder aufersteht; einen festen Zusammenhang mit dem Vegetationszyklus scheint sein Leben also nicht gehabt zu haben. Dies genügt, um eine Entlehnung dieses Gottes aus dem Orient wenig wahrscheinlich zu machen. (Derolez 1963: 155f.)
>
> ['He has often been brought in relation to Near Eastern fertility gods like Adonis, together with the more or less clear suggestion that Balder might be a deity taken over from there. In this perspective Balder's death would be a phase in the life cycle of a vegetation god: Just as in nature life dies at the beginning of winter, thus also the god would die, only to resurrect in spring with a new life. What is indeed striking is that the death of Balder's presumed oriental relatives was celebrated with grand mourning ceremonies, and that Balder had to be wept for by all living beings. And then there is the name of his wife Nanna in which one believed to discover an echo of the Babylonian name *Nana*. This however is contrary to the belief that Balder will not resurrect before the end of the world; thus, his life does not appear to have had a solid connection to the vegetation cycle. This suffices to render the borrowing of this god from the Orient rather unlikely.']

Howver, Kurt Schier has shown in a brilliant comparative study (Schier 1995b) that the oriental gods to which Balder has been compared, including the Phoenician Baal, share with Balder this final feature too: Not only are they all dying gods, they all do not resurrect. We are convinced that these facts, together with the identity of their names as demonstrated above, do suffice to explain the Germanic name as a Phoenician, namely Late Punic, loan theonym.

12. There is one important question concerning *Phol* and *Balder* we still have to answer: If the two names refer to the same Phoenician god Ba'l, why are the Old High German reflexes *Phol* and *Bal-* phonologically different? We explain this phonological difference as a consequence of different times of borrowing. The northward expansion of the Phoenicians/Carthaginians in the Atlantic Ocean began in the 7th century B.C., when Carthaginian rule extended into Portugal (cf. Aubet 2001: 292; Aubet 2008). The voyage of Himilco to the *extera Europae* took place c. 520 BCE (cf. 2.2 above), and the fact that this was noteworthy shows that Punic activities in the north were at that time not yet a matter of course. Carthaginian activities in the north ended no later than several decades after the fall of Carthage at the end of the Third Punic War (149–146 BCE). Thus, the Carthaginian linguistic influence extended from c. 520 to c. 100 BCE. The First Consonant Shift (Grimm's Law) is commonly assumed to have taken place between the 5th and the 3rd centuries B.C. Loanwords from Punic into Germanic would thus partly have been borrowed before or during, partly after the First Consonant Shift. This is the normal case. Sometimes, however, one and the same word is borrowed twice, once before or during such a shift and once after it, or one derivative of a root is borrowed before or during, and one after the shift, leading to the creation of what might be called a "Sound Shift Doublet". Such doublets are well known from the Second Consonant Shift: Many Latin words were borrowed into Early High German and made subject to the Shift, whereas the same word, or a word derived from the same root, was borrowed again later, and often from one of the Romance successor languages of Vulgar Latin or indeed from any language into which that word had been borrowed earlier on, not showing any involvement with the Second Consonant shift. The following pairs of loanwords, plus two final pairs of which one member is native High German, the other a Low German or English loanword are examples of this phenomenon:

    [p^f-: p-]
    ***Pf**affe/**P**apst* 'cleric/pope'
    ***Pf**alz/**P**alast* 'palatinate/palace'
    ***Pf**effer/**P**aprika* 'pepper/paprika'

***P**ferch/**P**ark* 'corral/park'
***P**fahl/**P**alisade* 'post/palisade'
***P**flanze/**P**lantage* 'plant/plantation'
***P**forte/**P**ortal* 'gate/portal'
***P**förtner/**P**ortier* 'doorman/concierge'
***P**fosten/**P**ost(-en)* '(goal)post/post'
***P**fründe/**P**roviant* 'prebend/provisions'

[t^s-: t-]
***Z**iegel/**T**iegel* 'tile/crucible'
***Z**eit/**T**iede* 'time/tide'
*-**z**ehn/**T**eenager* '-teen/teenager'

The Grimm's Law doublet ***Ph**ol* and ***B**alder* (PGmc. $^+$***P**ōl* and $^+$***B**alder*) is exactly of the same nature and no more troublesome than the German ones. It is possibly not even the only case of its kind: if we are right, *folk* and ***p**lough/**P**flug* form another doublet relating to Grimm's Law, both deriving from words based on forms of the Punic roots *p-l-Ḥ* and *p-l-g*, see Chapter 4 above.

*pl*C		*pl*C	
p(u)lg-			Borrowing into Pre-Germanic
folk-			First Consonant Shift, *u* > *o*[174]
		plōg-	Borrowing into West Germanic
		phluog-	Second Consonant Shift, *ō* > *uo*
folk	E *plough*, G *Pflug*		

It is therefore perfectly conceivable that the early Phoenician name of the god, *Baʿl*, was borrowed before or during the operation of Grimm's Law and thus changed into $^+$*Pōl*, whereas the later and typically Punic name *Baldir* of the same god was borrowed after the Shift and thus remained untouched by it.[175] The relative chronology of events is the following:

(1) Borrowing of *Baʿl*
(2) First Consonant Shift (Grimm's Law)
(3) Borrowing of *Baldir*

174. Lowering before the stem-vowel *-a-*.

175. We note that in his very critical study, Voigt (2013: 348) seems to accept the equation of *Baldir* and *Balder* as well as the timing.

Proof:

Ba'l	*Baldir*	
Bāl		Borrowing into Pre-Germanic
Pōl		First Consonant Shift, *ā* > *ō*
	Baldr-	Borrowing into Proto-Germanic
Phōl	–	Second Consonant Shift
Phōl	Balder	

That *Ba'l* was borrowed earlier than *Baldir* is a fair assumption: *Ba'l* was the earlier and general Phoenician name of the god; *Baldir* was a late Carthaginian rendering of the chiefly western by-named form *Ba'l 'Addīr*.
In Old Norse mythology, Baldr's wife is named *Nanna* (Simek 2006: s.v.). In Phoenician religion, Baal's sister and consort is named *Ana-* or, with the feminine termination, *Anat* (Lipiński [ed.] 1992: s.v.). The names *Anat* and *Nanna* are not the same, but their formal similarity together with the identical roles of the two deities as consorts of Baal/Baldr does suggest that they are the same goddess.[176] The North Germanic goddess Nanna therefore supports the equation of Phol/Balder and Baal.[177]

3.4 Punic religion in Germania? Historical consequences

Our analysis of some of the most conspicuous traits of Germanic religion have chimed in with research of about a century ago, which, on the evidence of correspondences between Near Eastern and Germanic deities and their functions,

---

176. Simek (2006: s.v.) says that the meaning of the name *Nanna* is not entirely clear. He points out similarities with a number of Mediterranean goddesses: "Die Namensübereinstimmung zwischen N[anna] und der sumerischen Inanna, Nannar (babylon[isch] Ishtar) oder der Nana, Mutter des phrygischen Attis, hat wiederholt zur Ansicht geführt, N. sei mit einer dieser Göttinnen identisch." [The onymatic agreement between Nanna and the Sumerian Inanna, Nannar (Babylonian Ishtar), or Nana, mother of the Phrygian Attis, has repeatedly led to the view that Nanna is identical with one of these goddesses.] Simek himself finds this "auf Grund des beträchtlichen räumlichen und zeitlichen Abstands wenig wahrscheinlich" [not very probable because of the considerable distance in space and time]. Unfortunately, he does not specifically mention Anat. – Cf. the Derolez quotation farther above.

177. Interestingly, Nanna's father is Nepr, whose name is "unklar" [unclear] (Simek 2006: s.v.). The pre-Grimm's Law root of *Nepr* would be ⁺*Neb-*. Old Egyptian *neb-* simply means 'lord' again. The goddess *Nbt-Ḥwt*, *Nebet-hut* 'Lady of the House', with *nb-t* 'lady' and *Ḥw-t* 'house', has, as Νέφθυς, become part of Greek mythology (Cancik & Schneider 2000: s.v. Nephtys). – This then could be further indirect evidence that the Germanic family of gods to which Baldr belongs has Mediterranean roots.

suggested that there must have been some sort of contact conveying those beliefs from the Mediterranean to the European North. Our research supports those early attempts but goes much farther: Not only have we suggested many more points of functional similarity between the Mediterranean and the Germanic religious worlds, we have – what counts more in philological endeavors – provided formal etymological correspondences paralleling those functional similarities.

To single out just one of the relevant cases, one that in our view by itself suffices to prove prehistoric cultural contacts between the Mediterranean world and Germania: The Late Punic god Baldir on one hand and the North Germanic god Baldr have identical functions: They are both dying gods (chthonic deities) and fertility gods. Such functional parallelism is not unique to this pair; it also holds for the Phoenician Ishtar/Astarte and the North Germanic Freyja, who are both at the same time goddesses of love and of war. But the pair Baldir and Baldr transcends the merely functional parallism by a significant level: They have the same name. This is more than can be explained as chance correspondence: Two deities, both male, with two identical functions *and* the same name, in two neighboring cultures (cultures not separated by further cultures but rather connected by uninterrupted sea-routes) – this fact can only be explained as a contact phenomenon. And since Baldir is, as Baʿl ʾAddīr, deeply rooted in Phoenician culture, while Baldr is the most discussed, namely the least integrated member of the Germanic pantheon, the contact influence must have moved from the Semitic world to the Germanic world.

We see the Punic influence on on the Germanic mythology as a pivotal cultural influence that paved the way for other influences, especially the writing system and key cultural vocabulary.

4. Archaeological evidence for a Punic presence in the North and Baltic Seas

In this section we survey the situation with respect to material evidence for Punic settlements in Northern Europe. We will argue that the absence of archaeological traces does not preclude assuming such a presence. We put forward three main arguments in support of this view. First that in many places the coastline was quite different 2,500 to 2,000 years ago, which means that in many cases potential settlements would have to be looked for in different places than today's coastline suggests. Second, and not unrelated to the first argument, there was a rise of sea levels in northern Europe during the first centuries AD, which means that many hypothesized settlements would now be submerged under the sea. Third, even in areas where a Punic presence is certain, archaeological records are not always identifiable as such, as subsequent settlements have superseded and obscured Punic

settlements. For example, many settlements with an assumed Phoenician-Punic presence in Spain have no unambiguous material evidence (Neville 2007).

However, let us first of all look at what material records there are to support a Punic settlement history on the Atlantic coast and especially beyond Britain. There is unambiguous archaeological evidence for Carthaginian settlements in central Portugal (Arruda 2009: 123; Aubet 2001: 293; Morstadt 2015: 76), but there is good indication from a significant amount of archaeological finds that this extended further into the northwest of the Iberian Peninsula (see Map 3).

Map 3. Punic archaeological finds in the northwest of the Iberian Peninsula (González-Ruibal 2004: 301)

This suggests that there may have been Punic settlements in this area as well. Generally, stone structures appear later in this area, but there are records of fortified settlements in the north as well, especially in strategically relevant places. One such example is Elviña/Brigantium, i.e. modern A Coruña, which was an important trade port where many Punic artefacts have been found (González-Ruibal 2004: 300–303). In fact, it is not unlikely that the name of A Coruña itself is Punic in origin (see Vennemann 2016 for such a proposal). The conclusion is that Phoenician-Punic activity extended well beyond the archaeological sites discovered so far:

> Although, as we have noted, Santa Olaia marks the most northerly Phoenician settlement so far located in Portugal, it is clear that it did not mark the limit of Phoenician activities in the region. Only very recently have typical Phoenician materials, such as amphorae and table ware, started to be recognised in the earliest *castros* of the metal-rich region of Galicia in the extreme north-west of Spain. Clearly the gold and tin of that area, along with its important bronze-production industry, must have attracted the Phoenicians. However, it is still open to debate how contact was made. Avienus speaks of the indigenous peoples of the north-west of Iberia sailing south to meet the Phoenicians and trade with them. Perhaps in this way the Mediterranean materials reached the extreme north-west. Perhaps also the Phoenicians sailed north from bases such as Santa Olaia. Or perhaps a mixture of both situations. What is clear is that the identification and analysis of Phoenician materials in the extreme north-west of Iberia will have much to tell us about the limits of Phoenician activity in the Atlantic sphere, and about the extent of their influence in the development of the Castro culture. (Neville 2007: 42)

For Britain a Phoenician-Punic presence has long been acknowledged, but actual settlements have not been identified with the same consensus. There is ample material evidence of Punic origin, especially a large number of coins found all over Britain.

There is agreement that a substantial part of these coins date from Pre-Roman times (see Green 2015 with references). In connection with the question about Carthaginian settlements in Britain this is highly relevant, as Green (2015) points out. We quote the entire passage in full, because it succinctly highlights the key facts.

> The above is obviously a point of considerable importance in the present context, and matters become even more suggestive when one turns to look at the distribution of these coins on the map included here. There is, for example, a clear concentration of Carthaginian coinage along the south coast of England, and especially around the major Iron Age port of Poole Harbour, the site of the only excavated Iron Age harbour piers or moles in Britain. These two apparently monumental structures date from the third century BC and were clearly well-built and substantial: up to 160 metres long, 8 metres wide, and with paved stone surfaces of creamy-white Purbeck marble, the piers together extended out into the deep-water

Map 4. The distribution of Carthaginian coins found in Britain (Green 2015)

channel, narrowing its entrance and thus enabling the control of access to the harbour within. […] Similarly, other significant concentrations of Carthaginian coins are easily discernible in and around the Severn Estuary; in the north-west, at the important pre-Roman trading site of Meols on the Wirral (Cheshire); and in the Thames Valley – all plausible sites for early maritime traders to have visited. However, the most impressive concentration of Carthaginian coins in Britain is undoubtedly that found in east Kent, including the Isle of Thanet, where far more of these Mediterranean coins have been found (on multiple sites) than is the case anywhere else in Britain. […] Needless to say, such a coincidence of evidence is astonishing. By far the greatest concentration of Carthaginian coinage in Britain occurs in just that area of the country where a linguistic case has been independently made for the possible presence of a trading settlement in Britain that was used and named by Carthaginian merchants. In such circumstances, it is hard not to see the coin finds as offering a substantial degree of support for Vennemann's etymology and interpretation of the name *Thanet*.

> In conclusion, although at first glance it might seem to be rather incredible, there does in fact appear to be a reasonable outline case to be made for Thanet having been the site of a pre-Roman coastal trading settlement that was used by Phoenician traders from Cadiz and Carthage and named by them after their home island at Cadiz, *'Y TNT*, the 'Isle (of) Tanit', as Vennemann suggests. The linguistic case for a derivation of the place-name *Thanet* from *'Y TNT* appears to be credible; there is a linguistic context for the derivation in terms of a small number of other difficult and inexplicable coastal names from around Britain that similarly might be appropriately explained via Proto-Semitic/Punic roots; there are hints in the literary sources of Phoenician/Carthaginian contact with pre-Roman Britain, involving trade and exploration; and there is now a substantial corpus of Carthaginian coins known from Britain that seem to be largely focussed around key coastal and riverine sites, with by far the greatest concentration of this material being found in the vicinity of Thanet itself. (Green 2015)

In footnote 13 the author cites work that has investigated the architecture of Poole Harbour and comments:

> Wilkes notes not only that the two harbour piers would have been 'visually impressive' and monumental, but also that the harbour design might be potentially compared with a number of Mediterranean harbours, including that of Motya, Sicily, a Phoenician and Carthaginian colony (Wilkes, *Iron Age Maritime Nodes*, I.212, and 'The south coast and Poole Harbour', p. 128). (Green 2015)

In addition, there is a single inscription from the first third of the third century CE found on a pottery shard in Holt/Denbigshire (Wales).

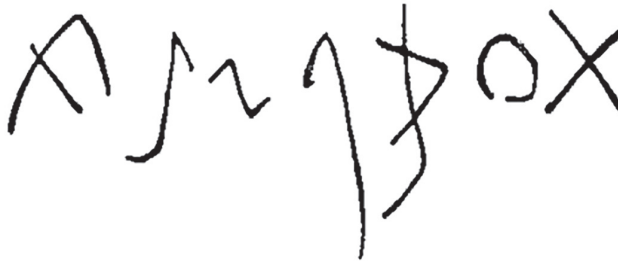


Figure 56. Neo-Punic inscription on a pottery sherd found in Holt/Denbigshire (Wales) (Jongeling 2008: 289)

The transliteration reads *m'qryn'*, which denotes the personal name Macrinus in the typical Punic way as *Maqrine* (Jongeling 2008: 289). Not much more is known about the context of this find, so it is possible that the inscription and the object on which it was found, did not originate in Britain, and therefore by itself it does not prove a more permanent Punic presence in the form of settlements. In fact, it is commonly

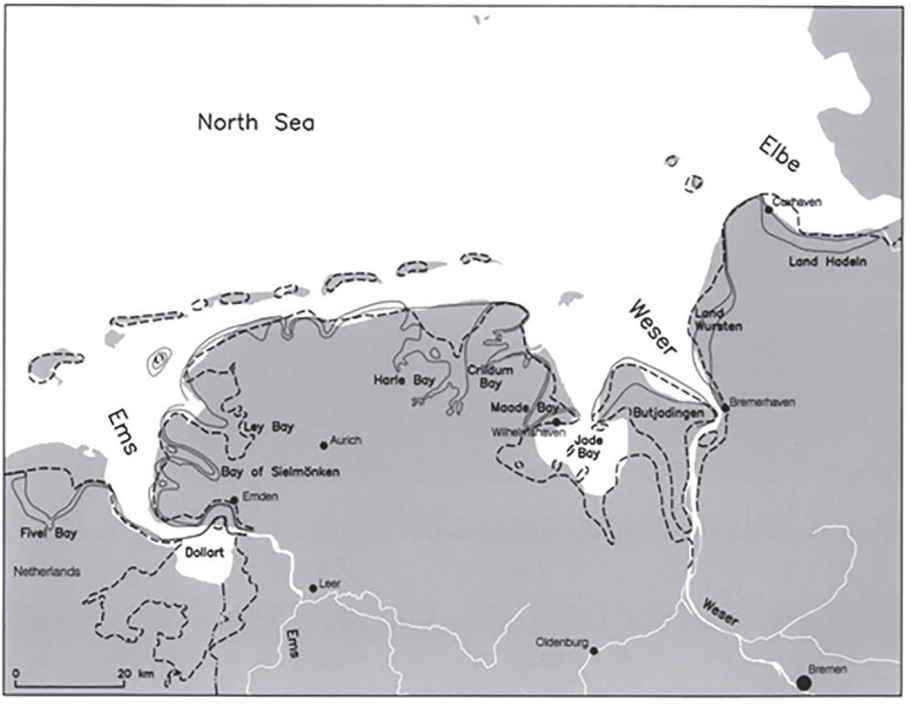
believed that Macrinus was a Roman soldier from North Africa. However, this may also be an indication of a survival of Punic in Britain long after the destruction of Carthage. Taken together with the other pieces of evidence, it appears actually very likely that there were in fact Phoenician-Punic settlements in Britain and that Punic continued to be spoken in parts even after Roman occupation.

There is perhaps also material evidence connecting Britain and the continent via the North Sea, though this is controversial. In his book *Rungholt: die Suche nach einer versunkenen Stadt,* Hans Peter Duerr claims to have found objects of Punic origin on the shores of Northern Germany (Duerr 2005). He interprets this as support for the existence of a far-flung northern trade network controlled by mythical "amber lords", local traders who became rich through the exchange of goods such as amber with Mediterranean merchants. Duerr's work has received much criticism, and it was even suspected that the artefacts he found had been planted by his students (Schulz 2006: 160). Among the items Duerr claimed to have found was a part of a Phoenician pot. If this is a genuine find, then this could suggest a Phoenician-Punic presence in northern Europe beyond Britain. Of course, this is no proof for settlements or even for actual Carthaginians travelling the North Sea – the pot could have got there by trade, as Duerr proposes. What it does suggest though, is that it is quite possible that archaeologists have either not investigated Northern Europe with Phoenician-Punic material remnants in mind, or that existing finds have not been interpreted as Phoenician-Punic, due to the generally perceived unlikeliness of a physical presence of Phoenicians in the area.

Besides this, however, there is nothing material that unambiguously or tentatively would point to a Phoenician settlement in modern-day Denmark or Southern Sweden. Based on known cases one would expect some constants in architecture that are usually found in Phoenician-Punic settlements both in the Mediterranean as well as the Atlantic coasts. There appear to have been two main types of settlements, and they both served the purpose of trade. Towns typically had some sort of fortification, often around the highest point where the main living area was (Harden 1963: 133; Moscati 1996: 93). By contrast, particularly from eastern Andalusia, a settlement type is known which Markoe (2000: 185) calls "commercial enclave" and which contrasts with a "fully fledged" town. Some of these enclaves went on to be towns but it is possible that at least some of the settlements in Northern Europe were of the enclave type and left almost no trace. Punic towns also typically had a characteristic feature, the so-called *tofet*, a walled place outside the city walls where the child sacrifices were performed, as well as a necropolis (see e.g. Moscati 1996: 93). But perhaps the most significant structure was the harbour, which often had an artificial pool, where ships were repaired (see e.g. Moscati 1996: 93; see Pilkington 2013 for further details on Punic archaeological records and the topic of child sacrifices).

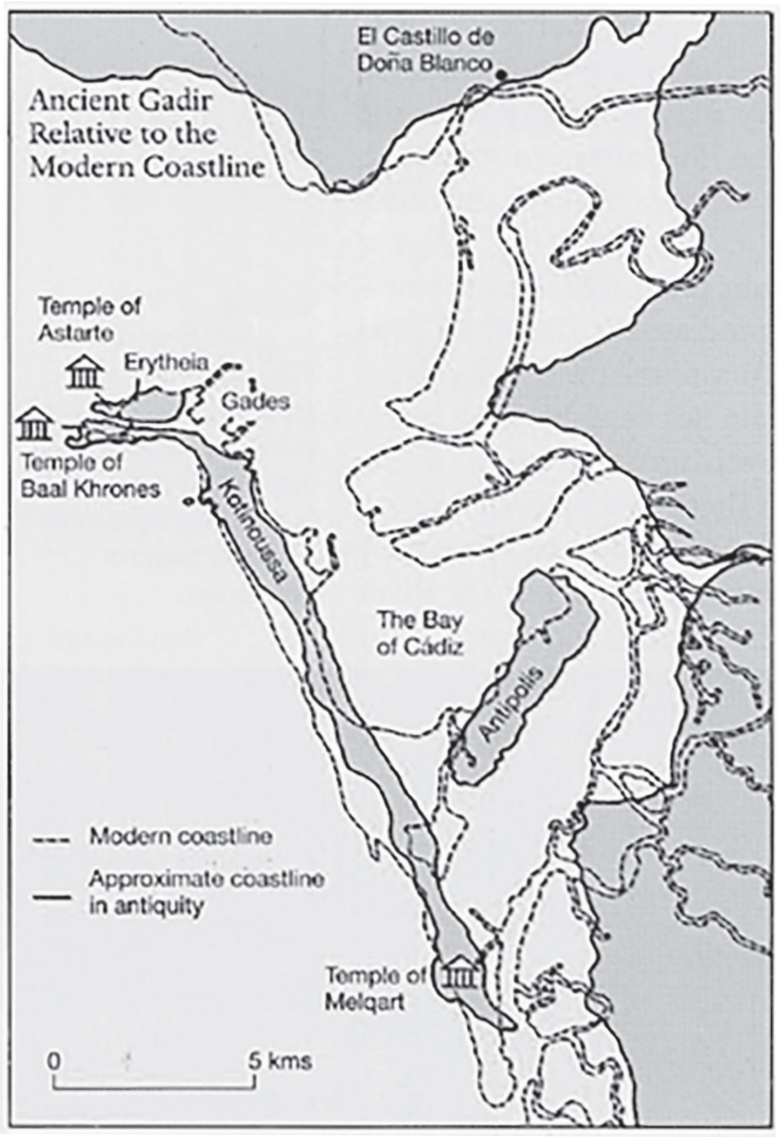
The lack of available material evidence for Phoenician settlements along the continental North European coast is in our view, however, not fatal, though doubtless deplorable. As mentioned above, there are reasons to believe that there is in fact such evidence, but that it has not been found or identified.

First, as mentioned above, the coastline of northern Europe was different between 2,500 and 2,000 years ago. Given that Punic settlements would have been almost certainly directly at the coast in protruding locations, changes in the coastline means that settlements dating back to that time could now be inland or under water (cf. below). Map 5 illustrates this for a part of the coast of the North Sea in Germany.



Map 5. The coastline of the North Sea in northern Germany through time: "Former coastlines in Lower Saxony (Niedersachsen). Dotted line: Ca. AD 0; solid line: Ca. AD 800 (before diking); broken line: Ca. AD 1500, when the bays had reached their maximum extent" (Behre 2004: 48)

In Southern Sweden, for instance, the sea levels dropped considerably over the past 3,000 years (Pirazzoli & Pluet 1991: 51); thus, once coastal settlements would possibly be inland now. This is well-known from Spain, where e.g. the bay of Cádiz has dried up considerably since antiquity (Morstadt 2015: 143), see Map 6.



Map 6. Coastline in the bay of Cádiz in antiquity and modern times (Cunliffe 2001: 268)

Second, and perhaps more importantly, rising sea levels in the north of Europe, especially after 100 CE (see Behre 2004: 46–49 for Northern Germany; see Pirazzoli & Pluet 1991: 70, 75 for England and Wales), meant that many of the Punic foundations, which would also often have been built at shallow water (Moscati 1996: 9), would probably be under water today.

Third, it is not unlikely that material traces of Punic settlements have been misidentified or not unearthed yet. Though some elements of Punic architecture are characteristic, e.g. the tofet and the artificial harbour pool, others were less conspicuous, for instance, fortifications and dwellings. They could easily have been mistaken as belonging to a different cultural group, even more so given that a Punic presence so far north would be unexpected. This is all the more relevant, given the generally high degree in hybridity in material traces, especially in Phoenician colonial settlements (Morstadt 2015: 76). In fact, recent research has stressed the archaeological heterogeneity of Punic settlements even across the Mediterranean, foregrounding the agentivity of the local populations (Ortega 2013: 66). Material records of Punic settlements could thus have easily been attributed to a different culture, and hence the seeming lack of evidence could simply reflect the research history. That this is likely becomes clear from places where it is known that a Punic settlement existed but where building activity by subsequent inhabitants has all but obscured the Punic foundations, which makes their investigation difficult. Such a case is the Phoenician colony of Gadir, modern-day Cádiz:

> The study of the Phoenician colony of Gadir is hampered by the brilliance of the founders' choice of site. So good was it that Gadir has remained a thriving port city throughout history to the present day […]. What little of the early settlement may remain, lies deep beneath many metres of more recent overburden.
>
> (Cunliffe 2001: 267)

One case in point is provided by settlements in the Aegean that 19th century research thought to be Phoenician, based on ancient historical sources. Subsequent research glossed over this view and attributed these settlements to Greek foundations, based on the "assumption of Greeks behind all cultural change towards 'civilization' in the Mediterranean" (Aktüre 2014: 481). However, recent evidence has cast doubt on this reinterpretation and has argued in favor of the original identification as Phoenician (Aktüre 2014: 483).

To sum up, there is no direct material evidence for Punic settlements northeast of the British Isles, including Denmark and Southern Sweden, i.e. the area that is commonly associated with the Germanic people. The most tangible archaeological record comes from the British Isles, and it is in harmony with the assumption that there was a substantial settlement history spanning several hundred years. Together with what it is known about the persistent and exploratory Punic colonialization efforts aiming to obtain access to raw materials, especially amber, and new markets the Punic record of long sea voyages with the purpose of colonialization, and the Punic technological leadership in maritime things, it is highly likely that the Phoenicians actually made it to the shores of Jutland and perhaps the Baltic Sea and established settlements. However, it is clear that this is a speculation

that extrapolates from known facts, rather than a conclusion based on material evidence *in situ*. Nonetheless, we argue that demonstrated plausibility is enough to reconstruct a hypothetical scenario of language contact between Punic and Pre-Proto-Germanic.

5. Genetic evidence

Genetic evidence is by nature even more ambiguous in terms of providing a link to language than material evidence, and even the link between genetic traces and material evidence is not unambiguous. It is obvious that genetic traces to a particular region do not necessarily have to point to a specific culture and of course not a particular language. There is also a chronological problem, and that is the timing of a hypothetical genetic link. A hypothetical genetic trace of Mediterranean people in e.g. Southern Scandinavia is not easily pinpointed to the second half of the first millennium BCE, it could be a signal from an earlier contact. Nonetheless, a Mediterranean genetic footprint in the area where we reconstruct the hypothetical scenario of language contact would doubtless give external support to the reality of this situation. However, it must be remembered that we do not reconstruct a large number of Carthaginians relative to the local population, which limits the possibility for a genetic impact somewhat.

There is, nonetheless, in fact genetic evidence for humans with a genetic similarity to populations in the Mediterranean, specifically Northern Africa, in Northern Europe and also in Britain. We will briefly review three case studies that suggest it is in fact possible that the Carthaginians reached the shores of Southern Scandinavia, judging form the genetic material. However, because genes do not tell us much, if anything, about the culture of the people involved, and even less about their language, such evidence is perhaps best seen as "not negative" rather than as positive.

Botigué et al. (2013) show that the genetic diversity of Europe increases from south to north. However, importantly, they also show that haplotypes connected to North Africa and the Near East are found in Northern Europe in a higher density than haplotypes belonging to Sub-Saharan Africa (Botigué et al. 2013: 11793). This can be interpreted as a genetic footprint of people from the area of the Phoenician Mediterranean, even though the dating is uncertain.

Zooming down specifically into Iron Age Denmark, Melchior et al. (2008) investigate datings of human remains of two villages in Eastern Denmark (in the south of Sjælland), Bøgebjerggård and Skovgaarde, that differ in their social categorization. Bøgebjerggård represented a lower socioeconomic area, whereas Skovgaarde was a village of higher socioeconomic status. Now, it is striking that

while Skovgaarde is on the whole genetically more diverse, the Bøgebjerggård sample contains an individual whose haplogroups are more consistent with an origin from the Middle East. Melchior et al. (2008: 218) interpret this as the remains of an "auxiliary soldier (or a member of the trailing nonmilitary) from the abovementioned region himself, or he descended from a woman from that region." They judge either possibility likely, and we think that this might as well be the second option, and that the man was a descendent of the Punic colonizers in the scenario that we put forward in this book.

It is evident that such an isolated example may not carry much weight, but it seems possible that specific investigations could in fact adduce more robust support. Zalloua et al. (2008) trace the genetic footprint of the Phoenicians through the Mediterranean and the Iberian Peninsula and find quite stable correlations. This means that an expansion of this work to the northwest and north of Europe would have the potential to shed some genetic light on the scenario we explore here. It is of course possible that a Phoenician signal gets washed out, as Zalloua et al. (2008: 640) also point out – this is not unlikely given the demographic situation that we expect for our scenario – but it would still be an important step ahead. This will have to be left to future research by specialists in this field.

We conclude this section by stating the main result, which is that there is some genetic evidence at least for humans with a Northern African and Middle Eastern origin in the areas of Northern Europe that are relevant to our hypothesis. We take this in favor of this hypothesis, but are quite aware that this is a far cry from conclusive proof or strong external support. Rather, we note that it cannot be said that there is no genetic evidence that would support our hypothesis, which means that it is a possible scenario.

CHAPTER 9

Conclusion

The goal of this book was to present a theory that can account for some problems in the lexicon, the grammar, religion and the writing system of Proto-Germanic. We hope to have achieved this goal and presented a plausible even if hypothetical and speculative account. We hope that there will be constructive engagement with our theory and that future work will shed further light on the issues we raise here. In order to facilitate this engagement, this conclusion summarizes the main points of our theory and our argumentation.

1. Unexplained linguistic features in proto-Germanic

The starting point of our study is the observation that certain areas of the generally accepted reconstruction of Proto-Germanic contain elements whose origin has not convincingly been accounted for. That is, for a number of features, it is unclear why they are the way they are. The features we considered were

- parts of the lexicon, i.e. words of unknown origin or with questionable etymologies;
- parts of the grammar: the system of the strong verbs and constituent ordering;
- the runic writing system.

We emphasize here that our assessment of these features as problematic does not always reflect the consensus view. In some cases, the general view is satisfied with existing accounts, while in others it may not share our perhaps more extreme assessment. However, for the majority of the issues we discuss, specialists would agree that they lack a fully convincing explanation of their origins. It is uncontested that the Germanic lexicon contains a significant proportion of unetymologized words, although the conclusions drawn from this fact may be different from the ones we draw. It is furthermore consensus that the system of the Germanic strong verbs is unique among the Indo-European languages. Its arrangement of inherited material appears quite idiosyncratic, and it contains a considerable number of words with unexplained origin. The constituent ordering of Proto-Germanic is more debated, but the split according to sentence type is widely regarded as an unusual feature.

Finally, the fact that there are three mutually exclusive theories on the origin of the runic writing system speaks for itself.

Consequently, despite some disagreement, the bigger picture is largely agreed upon: Proto-Germanic contains unexplained elements, and all this book does is to explore a theory that might explain them. The explanation we provide here is based on observations about the problematic features that are consistent with contact-induced rather than internal change. That is not to say that we believe these features must or can only be explained by contact-induced change, but rather they fit with what are common outcomes of contact-induced change. We merely contend that these features have not found satisfactory explanations in spite of a significant body of previous work. In our view this warrants an investigation from a new perspective.

2. Why Punic?

The chronological and methodological beginning of our theory is the realization that at least some of the problematic vocabulary of Germanic is more likely to be accounted for by superstratal rather than substratal influence. This was based on comparisons of the semantic fields the Germanic words cluster in with the semantic fields of known loanwords in well-studied cases of superstratum influence. Problematic Germanic words are found in areas such as warfare and government, which are also areas in which French loanwords are found in English and Low German loanwords in Scandinavian languages, among other cases discussed. Given that French and Low German were in superstratal relationships to English and the relevant Scandinavian languages, the conclusion is that the problematic words in Germanic from these semantic fields are also from a superstratum rather than a substratum (if they are borrowed at all). That is, if these words are to be explained as a result of language contact, the scenario requires a superstratum as source language (see Chapter 1 for further details and references).

This provides a significant constraint, because the known superstrata Proto-Germanic had direct contact with (Celtic, Latin) cannot be connected with this vocabulary. And furthermore, most of these words are not found in neighbouring languages either, so that it is unlikely that they "wandered" to Germanic from far away. This means a plausible superstratum would have to be found if that avenue of research is to be pursued. In the absence of a suitable candidate, it is useful to create a profile of a suitable candidate and this means looking for other features in Germanic that may invite an explanation based on the same superstratal language. Even without considering any linguistic evidence, Phoenician is the first candidate of a well-known language whose speakers are known to have lived at least in

proximity of the speakers of (Pre-)Proto-Germanic for a period of several hundred years. It is generally accepted that the Phoenicians at least visited the British Isles, and there is increasing evidence for settlements. Furthermore, it is also well known that the Phoenicians, and especially the Carthaginians, exercised considerable economic, cultural and also linguistic influence on the areas they visited and colonised. They were a classic superstratum. Well-studied cases such as Sardinia, Ibiza and Spain, document the close interaction and the impact of the Phoenicians on the local population. It is also important that the Phoenicians were the only Mediterranean power to colonise the Atlantic coast before the Roman expansion, so that if there were colonies of any of the major powers of antiquity where the speakers of Proto-Germanic lived, the Phoenicians are the most likely bet.

Thus, assuming that Phoenician, and more specifically, Punic was the superstratum in contact with Germanic is the best hypothesis based on the available historical record. Of course, one can assume an unknown language, but in our view, this is clearly the less preferable choice. In order to probe this working hypothesis, we look at the problems identified above and see whether they can be explained if an appropriate scenario of contact with Punic is assumed. The available generalizations from many studies on language contact suggest that the superstratum vocabulary was borrowed rather than transferred in a second-language learner scenario. Conversely, the problematic grammatical features are more consistent with a bilingual "interference" scenario. Both scenarios are consistent with the general situation in Carthage and Carthaginian colonies: there everything Punic was highly attractive, and superstratal loanwords filtered into the local language, e.g. Lybian, while there was also a high degree of hybridization and bilingualism, which may account for the grammatical idiosyncrasies. Thus, the historical, extra-linguistic situation at around 500 BC as well as general considerations about contact-induced change favor Phoenician, and specifically Punic (a western dialect spoken in the Carthaginian empire, which had taken over the colonies of its mother cities).

While these reasons are in our view strong enough to take a closer look at Punic and its potential contact with pre-Proto-Germanic, it is of course the linguistic (and graphical) evidence that will be especially significant. If the problematic features of Germanic find no explanation – according to what is required for explanations based on contact-induced change – then the theory of Punic influence on Germanic would not be well-supported. To spell this out in more detail let us look at what would reasonably be seen as indicative for such a situation for each area we investigate in this book.

In the area of vocabulary, a null result would be if no etymologies or only etymologies of very low quality could be found, or if the etymologies were only based on ad hoc assumptions. If, by contrast, good and even regular correspondences can be found, and that in cases with significant historical implications, then this

would provide support to a contact-based account. We hope to have shown that the second situation is consistent with our proposal. We are aware of the fact that the loanwords we adduce here are not very numerous. However, we are not sure whether this is a serious problem, as we think that words with high implicative power in historical terms, such as words from the fields of warfare, government and so forth, carry more weight than sheer numbers. That is, to put it crudely, 'nobility' is perhaps worth more than words for types of weapons that can travel more easily. In addition, it is likely that some of the Punic influence was attenuated or even lost during the period of "Re-Germanicization". That is, it is probable that originally there were more loanwords but that many were lost after Punic ceased to be spoken. Nonetheless, we see that the theory would be strengthened if more loanwords could be adduced. We hope that further research will shed more light on this matter.

In order for the grammatical problems of Germanic to find a plausible explanation involving Punic, we needed to show that the relevant features are not inherited and that they find close parallels in concrete Punic structures. We believe we have done this for both the strong verbs and constituent ordering. In particular, we think that our proposal has the specific advantage that it can explain why ablaut acquired such a dominant position in the morphology of the strong verbs. This is underscored by our experimental evidence that demonstrates that bilinguals familiar with ablaut from a Semitic language in their linguistic repertoire do indeed over-apply it in another language of their repertoire, where it is less prominent. In our view, this is a good linguistic argument for Punic as a contact language. A language with prominent ablaut has been shown to cause similar effects on English that we posit for Proto-Germanic. Historically, the only known language within reach that fits this description is Punic.

Last but by no means least, there is the evidence from the writing system. We consider this perhaps to be the strongest argument, because it is half-linguistic, half-extralinguistic, and because we think it is compelling in that it specifically points to Punic. The probability that all the systematic correspondences we discuss are coincidental is in our view close to zero. And to this, we might add religion, where the correspondences are also so close that we find it hard to believe in a coincidence.

3. Where to from here?

The theory in this book is to be taken as a contribution to the discussion on the linguistic and historical origin of Germanic. We are well aware that we may not have provided proof or compeling arguments in all cases, but we do think that some of our arguments are worthy of being considered carefully. If our theory is correct,

this represents a major watershed in the history and the historical investigation of Germanic. What we hope for is engagement with the content of our book; that is, first and foremost with the linguistic arguments but of course with the entire theory. This is irrespective of what this engagement means for the correctness of our theory. If new research shows that the problematic features of Germanic are not problematic at all or that they find a better explanation under a different scenario, then this is just as welcome to us as if more evidence in favor of our theory were to be unearthed. We are in fact excited to see how our alternative account will help advance the knowledge base to cast further light on the history of Germanic.

References

Acquaro, E. 1988. Phönizier und Etrusker. In Sabatino Moscati (ed.), *Die Phönizier*, 532–537. Hamburg: Hoffmann und Campe.

Adams, J. N. 2003. *Bilingualism and the Latin language*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511482960

Aikhenvald, A. Y. 2007. Grammars in Contact: A Cross-Linguistic Perspective. In Alexandra Y. Aikhenvald & Robert M. W. Dixon (eds.), *Grammars in Contact: A Crosslinguistic Typology*, 1–66. Oxford: Oxford University Press.

Aktüre, Z. 2014. Phoenician settlement in the Mediterranean and the culture-history paradigm. In José Maria Álvarez Martínez, Trinidad Nogales Basarrate & Isabel Rodà de Llanza (eds.), *Proceedings of 8th International Congress of Classical Archaeology*. Rome: Museo Nacional de Arte Romano.

Albright, W. F. 1941. Anath and the dragon. *Bulletin of the American Schools of Oriental Research* 84. 14–17.

Alfen, P. van. 2015. Phoenician Trade: An Overview. https://www.academia.edu/20264101/Phoenician_Trade_An_Overview.

Almgren, O. 1926. *Hällristningar och kultbruk: Bidrag till belysning av de Nordiska bronsalders-ristningarnas innebörd* (Kungl. Vitterhets Historie Och Antikvitets Akademiens Handlingar 35). Stockholm: Lagerström.

Almgren, O. 1934. *Nordische Felszeichnungen als religiöse Urkunden*. Frankfurt a. M.: M. Diesterweg.

Aly, W. 1927. Die Entdeckung des Westens: Die Überlieferung von Hannos Fahrtbericht. *Hermes* 62. 299–341, 485–489.

Amadasi Guzzo, M. G. and Röllig, W. 1995. La Langue. In Véronique Krings (ed.), *La civilisation phénicienne et punique: Manuel de recherche* (Handbuch Der Orientalistik. Erste Abteilung. Der nahe und mittlere Osten 20). Leiden: Brill.

Ameling, W. 1993. *Karthago: Studien zu Militär, Staat und Gesellschaft*. Munich: Beck.

Amira, K. von. 1900. Recht. In Hermann Paul (ed.), *Grundriß der germanischen Philologie, vol. 3: Wirtschaft, Recht, Kriegswesen, Mythologie, Sitte, Kunst, Heldensage, Ethnographie*, 51–222. Straßburg: Karl Trübner.

Anchimbe, E. 2006. *Cameroon English: Authenticity, Ecology and Evolution* (Arbeiten Zur Sprachanalyse 45). Frankfurt a. Main: Peter Lang.

Anger, Eberhard (ed.). 1998. *Der Taschenbrockhaus: Unsere Welt*. Leipzig: F. A. Brockhaus.

Anonymous. 1725. *A New Canting Dictionary: Comprehending All the Terms, Ancient and Modern, Used in the Several Tribes of Gypsies, Beggars, Shoplifters, Highwaymen, Foot-pads, and All Other Clans of Cheats and Villains. Interspersed with Proverbs, Phrases, Figurative Speeches, &c. Being a Complete Collection of All that Has Been Publish'd of that Kind. With Very Large Additions of Words Never Before Made Publick … With a Preface, Giving an Account of the Original, Progress, &c. of the Canting Crew; and Recommending Methods for Diminishing*

These Varlets, by Better Employment of the Poor. To which is Added a Complete Collection of Songs in the Canting Dialect. London and Westminster. books.google.de/books/about/A_New_Canting_Dictionary.html?id=0LosAQAAMAAJ&redir_esc=y (6 February 2016).

Anttila, R. 1972. *An introduction to historical and comparative linguistics*. London: Macmillan.

Arntz, H. 1944. *Handbuch der Runenkunde* (Sammlung Kurzer Grammatiken Germanischer Dialekte B: Ergänzungsreihe, 3). repr. Bonn: Lemperz 2007. Halle/Saale: Max Niemeyer.

Arruda, A. M. 2009. Phoenician Colonization on the Atlantic Coast of the Iberian Peninsula. In Michael Dietler & Carolina López-Ruiz (eds.), *Colonial Encounters in Ancient Iberia*, 113–130. Chicago/London: University of Chicago Press. https://doi.org/10.7208/chicago/9780226148489.003.0004

Aubet, M. E. 2001. *The Phoenicians and the West: politics, conolnies and trade*. (Trans.) Mary Turton. Cambridge: Cambridge University Press.

Aubet, M. E. 2008. Political and economic implications of the new Phoenician chronologies. In Claudia Sagona (ed.), *Beyond the homeland: Markers in Phoenician Chronology*, 247–260. Leuven: Peeters.

Augst, G. 1975. *Lexikon zur Wortbildung* (Forschungsberichte des Instituts für Deutsche Sprache Mannheim 24.1–3). Tübingen: Gunter Narr.

Axel, K. 2007. *Studies on Old High German syntax: Left sentence periphery, verb placement and verb second*. Amsterdam: John Benjamins. https://doi.org/10.1075/la.112

Bach, A. 1970. *Geschichte der deutschen Sprache*. 3rd ed. Heidelberg: Quelle & Meyer.

Baltsan, H. 1992. *Webster's New World Hebrew Dictionary*. New York: Prentice Hall.

Bammesberger, A. 1986. *Der Aufbau des germanischen Verbalsystems*. Heidelberg: Carl Winter.

Bammesberger, A. 1990. *Die Morphologie des urgermanischen Nomens*. Heidelberg: Carl Winter.

Bately, J. 1989. *The Old English Oriosius*. Oxford: Oxford University Press.

Beekes, R. S. P. 1998. The Origin of Latin aqua and of *teutaa "people." *Journal of Indo-European Studies* 26. 459–466.

Behre, K.-E. 2004. Coastal development, sea-level change and settlement history during the later Holocene in the Clay District of Lower Saxony (Niedersachsen), northern Germany. *Quaternary International* 112. 37–53. https://doi.org/10.1016/S1040-6182(03)00064-8

Belarte, M. C. 2009. Colonial Contacts and Protohistoric Indigenous Urbanism on the Mediterranean Coast of the Iberian Peninsula. In Michael Dietler & Carolina López-Ruiz (eds.), *Colonial Encounters in Ancient Iberia*, 91–112. Chicago/London: The University of Chicago Press. https://doi.org/10.7208/chicago/9780226148489.003.0003

Belén Deamos, M. 2009. Phoenicians in Tartessos. In Michael Dietler & Carolina López-Ruiz (eds.), *Colonial Encounters in Ancient Iberia*, 193–228. London/Chicago: University of Chicago Press. https://doi.org/10.7208/chicago/9780226148489.003.0008

Benor, S. B. 2010. Ethnolinguistic repertoire: Shifting the analytic focus in language and ethnicity. *Journal of Sociolinguistics* 14. 159–183. https://doi.org/10.1111/j.1467-9841.2010.00440.x

Berenbaum, Michael & Skolnik, Fred (eds.). 2007. *Encyclopaedia Judaica*. 2nd ed. 22 vols. Detroit: Macmillan Reference.

Biville, F. 2002. The Graeco-Romans and Graeco-Latin: A Terminological Framework for Cases of Bilingualism. In J. N. Adams & Simon Swain (eds.), *Bilingualism in Ancient Society. Language Contact and the Written Text*, 77–102. Oxford: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199245062.003.0004

Blažek, V. 2014. Punic loans in Berber languages and their role in chronology of Berber. *Folia Orientalia* 51. 231–249.

Böhm, G. 2002. *Sprache und Geschichte im kanarischen Archipel* (Beiträge Zur Afrikanistik 72). Vol. 2. 2 vols. Vienna: Institute für Afrikanistik und Ägyptologie.

Bostock, J. K. 1955. *A handbook on Old High German literature*. Oxford: Clarendon Press.

Botigué, L. R., Henn, B. M., Gravel, S., Maples, B. K., Gignoux, C. R., Corona, E., Atzmon, G., et al. 2013. Gene flow from North Africa contributes to differential human genetic diversity in southern Europe. *Proceedings of the National Academy of Sciences* 110(29). 11791–11796. https://doi.org/10.1073/pnas.1306223110

Boutkan, D. and Siebinga, S. M. 2005. *Old Frisian Etymological Dictionary* (Leiden Indo-European Etymological Dictionary Series 1). Leiden: Brill.

Braune, W. 1962. *Althochdeutsches Lesebuch*. (Ed.) Ernst A. Ebbinghaus. 14th ed. Tübingen: Max Niemeyer.

Braune, W. 2004. *Althochdeutsche Grammatik I* (Sammlung Kurzer Grammatiken Germanischer Dialekte A.5/1). (Ed.) Ingo Reiffenstein. 15th ed. Tübingen: Max Niemeyer. https://doi.org/10.1515/9783110930887

Braunmüller, K. 1982. *Syntaxtypologische Studien zum Germanischen* (Tübinger Beiträge zur Linguistik 197). Tübingen: Gunter Narr.

Brekle, H. E. 1994. *Die Antiqualinie von ca. -1500 bis ca. +1500: Untersuchungen zur Morphogenese des westlichen Alphabets auf kognitivistischer Basis*. Münster: Nodus.

Brøndal, V. 1917. *Substrater og laan, i Romansk og Germansk: Studier i lyd- og ordhistorie. Copenhagen*. Copenhagen: G. E. C. Gad.

Brown, F., Driver, S. R. and Briggs, C. A. 1979. *The new Brown – Driver – Briggs – Gesenius Hebrew and English lexicon: With an appendix containing the Biblical Aramaic*. Peabody, Mass.: Hendrickson.

Brunner, K. 1965. *Altenglische Grannmatik: Nach der Angelsächsischen Grammatik von Eduard Sievers* (Sammlung Kurzer Grammatiken Germanischer Dialekte, A.3). Tübingen: Max Niemeyer. https://doi.org/10.1515/9783110930894

Brunner, L. 1969. *Die gemeinsamen Wurzeln des semitischen und indogermanischen Wortschatzes: Versuch einer Etymologie*. Berne: A. Francke.

Buck, C. D. 1904. *A Grammar of Oscan and Umbrian*. Boston: The Athenaeum Press.

Bunson, M. 2012. *Encyclopedia of Ancient Rome*. Landisville: Yurchak Printing.

Buxó, R. 2009. Botanical and Archaeological Dimensions of the Colonial Encounter. In Michael Dietler & Carolina López-Ruiz (eds.), *Colonial Encounters in Ancient Iberia*, 155–168. London/Chicago: University of Chicago Press. https://doi.org/10.7208/chicago/9780226148489.003.0006

Bybee, J. and Slobin, D. 1982. Roles and Schemas in the Development and Use of the English past tense. *Language* 58. 265–289. https://doi.org/10.1353/lan.1982.0021

Campbell, A. 1959. *Old English Grammar*. Oxford: Clarendon Press.

Cancik, H. and Schneider, H. 2000. *Der neue Pauly: Enzyklopädie der Antike*. Vol. 8: Mer-Op. Stuttgart: J. B. Metzler.

Cancik, H. and Schneider, H. 2002. *Der neue Pauly: Enzyklopädie der Antike*. Vol. 12: Tam-Vel. Stuttgart: J. B. Metzler.

Caquot, A. M., Sznycer, A. and Herner, A. 1973. *Textes ougaritiques I: Mythes et légendes* (Littératures Anciennes Du Proche-Orient 7). Paris: Éditions du Cerf.

Caudal, P., Mailhammer, R. and Bednall, J. 2019. A comparative account of the Iwaidja and Anindilyakwa modal systems. Paper presented at the Australian Languages Workshop, The University of Melbourne, Camp Marysville.

Cerrón-Paolmino, R. M. 1987. *Lingüística quechua*. Cuzco, Peru: Centro de Estudios Rurales Andinos "Bartolomé de las Casas."

Chantraine, P. 1968. *Dictionnaire étymologige de la langue grecque: Histoire des mots*. 4 vols. Paris: Klincksieck.

Charles-Picard, G. and Charles-Picard, C. 1983. *Karthago: Leben und Kultur*. (Trans.) Ignaz Miller. Stuttgart: Reclam.

Cichosz, A. 2010. *The influence of text type on word order of Old Germanic languages. A corpus-based contrastive study of Old English and Old High German*. Frankfurt a. Main: Peter Lang.

Cichosz, A., Gaszewski, J. and Pęzik, P. 2016. *Element Order in Old English and Old High German Translations*. Amsterdam & Philadelphia: John Benjamins. https://doi.org/10.1075/nss.28

Clahsen, H., Eisenbeiss, S. and Sonnenstuhl-Henning, I. 1997. Morphological structure and the processing of inflected words. *Theoretical Linguistics* 23. 225–255. https://doi.org/10.1515/thli.1997.23.3.201

Clark Hall, J. R. and Meritt, H. D. 1960. *A concise Anglo-Saxon dictionary*. 4th ed. Cambridge: Cambridge University Press.

Coetsem, F. van. 2000. *A General and Unified Theory of the Transmission Process in Language Contact*. Heidelberg: Carl Winter.

Cohen, D. 1970. *Dictionnaire des racine sémitiques ou attestées dans les langues sémitiques: Comprenant un ficher comparatif de Jean Cantineau*. Vol. 1. Paris: Mouton.

Cohen, M. 1926. Sur le nom d'un contenant à entrelacs dans le monde méditerranéen. *Bulletin de la Societé de Linguistique de Paris* 27(81–120).

Corbett, G. 2009. Suppletion: Typology, markedness and complexity. In Patrick Steinkrüger & Manfred Krifka (eds.), *On inflection*, 25–40. Berlin/New York: Mouton de Gruyter.

Coulmas, F. 1996. *The Blackwell encyclopedia of writing systems*. Oxford: Blackwell.

Cunliffe, B. 2001. *Facing the ocean: the Atlantic and its Peoples*. Oxford: Oxford University Press.

Dahl, Ö. 1985. *Tense and Aspect Systems*. Malden, MA: B. Blackwell. http://books.google.com.au/books?id=zUqkQgAACAAJ.

Daniels, Peter T. & Bright, William (eds.). 1996. *The world's writing systems*. Oxford: Oxfod University Press.

Demandt, A. 1995. *Antike Staatsformen. Eine vergleichende Verfassungsgeschichte der Alten Welt*. Berlin: Akademie-Verlag. https://doi.org/10.1515/9783050069975

Derolez, R. L. M. 1963. *Götter und Mythen der Germanen*. Wiesbaden: VMA-Verlag.

Deuchar, M. 2016. Cross-language effects in bilingual production and comnprehension: some novel findings. *Bilingualism: Language and Cognition* 19(4). 706–709. https://doi.org/10.1017/S136672891600050X

Dietler, M. 2009. Colonial Encounters in Iberia and the Western Mediterranean: An Exploratory Framework. In Michael Dietler & Carolina López-Ruiz (eds.), *Colonial Encounters in Ancient Iberia*, 3–48. London/Chicago: University of Chicago Press. https://doi.org/10.7208/chicago/9780226148489.003.0001

Dietler, M. and López-Ruiz, C. 2009. Encounters in Ancient Iberia: A coda. In Michael Dietler & Carolina López-Ruiz (eds.), *Colonial Encounters in Ancient Iberia*, 299–312. London/Chicago: University of Chicago Press. https://doi.org/10.7208/chicago/9780226148489.003.0012

Dimitrov, A. 2005. Münzwesen und Sprachkontakt. *Ludwig-Maximilians Universität München, ms.*

Donner, H. and Röllig, W. 1973. *Kanaanäische und aramäische Inschriften*. 3rd ed. 3 vols. Wiesbaden: Otto Harrassowitz.

Donner, H., and W. Röllig. 1966, 1968. *Kanaanäische und aramäische Inschriften*. Bd. 1: *Texte*, Bd. 2: *Kommentar*. 2nd ed. Wiesbaden: Otto Harrassowitz.

Drommelen, P. van. 1997. Colonial constructs: colonialism and archaeology in the Mediterranean. *World Archaeology* 28. 305–323. https://doi.org/10.1080/00438243.1997.9980350

Duerr, H. P. 2005. *Rungholt : die Suche nach einer versunkenen Stadt*. Frankfurt am Main: Insel.

Düwel, K. 2008. *Runenkunde* (Sammlung Metzeler 72). 4th ed. Stuttgart: J. B. Metzeler. https://doi.org/10.1007/978-3-476-01419-1

Düwel, K. and Heizmann, W. 2006. Das ältere Fuþark: Überlieferung und Wirkungsmöglichkeiten der Runen. In Alfred Bammesberger & Gaby Waxenberger (eds.), *Das Fuþark und seine einzelsprachlichen Weiterentwicklungen: Akten der Tagung in Eichstätt vom 20. bis 24. Juli 2003* (Ergänzungsbände zum Reallexikon der Germanischen Altertumskunde 51), 3–60. Berlin: Walter de Gruyter. https://doi.org/10.1515/9783110922981.3

Eades, Diana. 2014. Aboriginal English. In: Koch, Harold & Rachel Nordlinger (eds.), *The languages and linguistics of Australia: a comprehensive guide*, 417–447. Berlin/New York: De Gruyter Mouton

E., B. 1899. *A NEW DICTIONARY OF THE Terms Ancient and Modern of the Canting Crew, In its several TRIBES, OF Gypsies, Beggers, Thieves, Cheats, &c., WITH An Addition of some Proverbs, Phrases, Figurative Speeches, &c.: Useful for all sorts of People, (especially Foreigners) to secure their money and preserve their Lives; besides very Diverting and Entertaining, being wholly New*. London: W. Hawes. https://archive.org/details/newdictionaryoft00begeuoft (6 February 2016).

Ebert, R. P. 1990. Review of Fred Weereman, The V2 conspiracy: A synchronic and a diachronic analysis of verbal positions in Germanic languages, (Publications in Language Sciences, 31), Dordrecht: Foris, 1989. *Studies in Language* 14. 490–498. https://doi.org/10.1075/sl.14.2.13ebe

Eggers, H. 1980. *Deutsche Sprachgeschichte I*. 10th ed. Reinbek bei Hamburg: Rowohlt.

Ehrismann, O.-R. 1970. Volk: Eine Wortgeschichte (vom Ende des 8. Jahrhunderts bis zum Barock). Gießen: University of Gießen PhD dissertation.

Eiliger, W. 1990. *Karthago: Stadt der Punier, Römer, Christen*. Berlin/Cologne: Kohlhammer.

Ellison, T. M. and Miceli, L. 2017. Language monitoring in bilinguals as a mechanism for rapid lexical divergence. *Language* 93. 255–287. https://doi.org/10.1353/lan.2017.0014

Ernout, A. and Meillet, A. 1985. *Dictionnaire étymologice de la langue latine: Historie des mots*. rev. 4th. Paris: Klinksieck.

Euzennat, M. 1994. Le périple d'Hannon. *Comptes redus des séances de l'Académie des Inscriptions et Belles-Lettres* 138. 559–580.

Eythórsson, T. 1995. Verbal syntax in the early Germanic languages. Cornell University. www.academia.edu/1836851/Verbal_Syntax_in_the_Early_Germanic_Languages, (25 September 2015).

Eythórsson, T. 1996. Functional categories, cliticization, and verb movement in the early Germanic languages. In Höskuldur Thráinsson, Steve Peter & Samuel David Epstein (eds.), *Studies in comparative Germanic syntax* (Studies in Natural Language and Linguistic Theory 38), vol. 2. Dordrecht: Kluwer. https://doi.org/10.1007/978-94-010-9806-9_5

Eythórsson, T. 2001. The syntax of verbs in Early Runic. *Working Papers in Scandinavian Syntax* 67. 1–55.

Falileyev, A. 2000. *Etymological Glossary of Old Welsh*. Tübingen: Niemeyer. https://doi.org/10.1515/9783110952643

Ferraresi, G. 2005. *Word order and phrase structure in Gothic* (Orbis Supplementa 25). Leuven: Peeters.

Février, J. G. 1949. A propos de Ba'al Addir. *Semitica* 2. 21–28.
Feyerabend, K. 1998. *Taschenwörterbuch Althebräisch-Deutsch zum Alten Testament*. 29th ed. Berlin: Langenscheidt.
Fischer, H. 1966. *Schrifttafeln zum althochdeutschen Lesebuch*. Tübingen: Max Niemeyer. https://doi.org/10.1515/9783110952018
Fishman, J. 2001. *Can threatened langauges be saved? Reversing language shift revisited: a 21st century perspective*. Clevedon: Multilingual Matters.
Fortson, B. W. I. 2010. *Indo-European Language and Culture*. 2nd ed. Maldon, MA: Wiley-Blackwell.
Freeman, P. 2001. *Ireland and the Classical World*. Austin: University of Texas Press.
Friedrich, J. and Röllig, W. 1999. *Phönizisch-Punische Grammatk*. Rome: Edifice Pontifico Instituto Biblico.
Friedrich, P. 1976. The devil's case: PIE as SVO. In Alphonse Juilland (ed.), *Linguistic studies offered to Joseph Greenberg on the occasion of his sixtieth birhtday*, vol. 3: syntax, 463–480. Saratoga, CA: Anma Libri.
Friesen, O. von. 1933. De germanska, anglofrisiska och tyska runorna. In Otto von Friesen (ed.), *Runorna* (Nordisk Kultur 6), 3–79. Stockholm: Bonnier.
Frisk, H. 1973. *Griechisches etymologisches Wörterbuch*. 2nd/3rd. 2 vols. Heidelberg: Carl Winter.
Gabelentz, G. von der. 1891. *Die Sprachwissenschaft, ihre Aufgaben, Methoden und bisherigen Ergebnisse*. (Ed.) Albrecht Graf von der Schulenburg. 2nd ed. Leipzig: T. O. Weigel.
Gafos, A. 2003. Greenberg's asymmetry in Arabic: A consequence of stems in paradigms. *Language* 79(2). 317–355. https://doi.org/10.1353/lan.2003.0116
Gascou, J. and Guéry, R. 1989. Inscriptions du Sud constantinois. *Antiquités africaines* 25. 45–52. https://doi.org/10.3406/antaf.1989.1159
Gensler, O. D. 1993. A typological evaluation of Celtic/Hamito-Semitic syntactic parallels. University of California, Berkeley.
Gillon, C. and Mailhammer, R. 2015. Reanalyzing the Morphology And Semantics Of Verbal Plural Marking In Quechan. *International Journal of American Linguistics* 81. 573–593. https://doi.org/10.1086/683160
Goldenberg, G. 2013. *Semitic Languages: Features, Structures, Relations, Processes*. Oxford: Oxford University Press.
Golther, W. 1895. *Handbuch der germanischen Mythologie*. repr. Essen: Phaidon.
González-Ruibal, A. 2004. Facing two seas: Mediterranean and Atlandic contacts in the northwest of Ibearia in the first millennium BC. *Oxford Journal of Archaeology* 23(3). 287–317. https://doi.org/10.1111/j.1468-0092.2004.00213.x
Goodchild, R. G. 1954. La necropoli romano-libica di Bir ed Dréder. *Quaderni di archeologica della Libia* 3. 91–107.
Götzinger, E. 1885. *Reallexicon der deutschen Altertümer: Ein Hand- und Nachschlagebuch der Kulturgeschichte des deutschen Volkes*. 2nd compl. reworked. Leipzig: Woldemar Urban.
Gray, B. 1978. Class and Classics: The Social Basis of Ancient Bilingualism. *Language Sciences* 1. 50–84. https://doi.org/10.1016/S0388-0001(79)80006-6
Green, A. R. W. 2003. *The Storm-God in the Ancient Near East* (Biblical and Judaic Studies from the University of California, San Diego 8). Winona Lake, IN: Eisenbrauns.
Green, C. 2015. Thanet, Tanit and the Phoenicians: Place-Names, Archaeology and Pre-Roman Trading Settlements in Eastern Kent? *Dr Caitlin R. Green History – Archaeology – Lectures & Seminars*. http://www.caitlingreen.org/2015/04/thanet-tanit-and-the-phoenicians.html.

Greenberg, J. H. 1966. Some universals of grammar with particular reference to the order of meaningful elements. In Joseph H. Greenberg (ed.), *Universals of language*, 73–113. 2nd ed. Cambridge, MA: MIT Press.
Grimm, J. 1981. *Deutsche Mythologie*. 4th ed. 3 vols. Frankfurt a. M.: Ullstein.
Grimm, J. and Grimm, W. 1854. Deutsches Wörterbuch. Leipzig: HIrzel.
Gsell, S. 1913. *Historice ancienne de l'Afrique du Nord*. Vol. 1. Paris: Libraire Hachette.
Guirand, F. 1959. Assyro-Babylonian Mythology. In Robert Graves & Delano AmesRichard Aldington (eds.), trans.*The Larousse Encyclopedia of Mythology*, 49–72. London: Paul Hamlyn.
Gutenbrunner, S. 1944. Der zweite Merseburger Spruch im Lichte nordischer Überlieferungen. *Zeitschrift für deutsches Altertum und deutsche Literatur* 80. 1–5.
Haarmann, H. 2011. *Geschichte der Schrift: Von den Hieroglyhen bis heute* (C. H. Beck Wissen 2198). 4th corr. Munich: C. H. Beck.
Habel, E. and Gröbel, F. 1959. *Mittellateinisches Glossar*. 2nd ed. Paderborn: Ferdinand Schöningh.
Hackert, S. 2008. Counting and coding the past: Circumscribing the variable context in quantitative analyses of past inflection. *Language Variation and Change* 20. 127–153. https://doi.org/10.1017/S0954394508000033
Hackett, J. A. 2004. Phoenician and Punic. In Roger D. Woodard (ed.), *The Cambridge encyclopedia of the world's ancient languages*, 365–385. Cambridge: Cambridge University Press.
Hackett, J. A. 2008. Phoenician and Punic. In Roger D. Woodard (ed.), *The Ancient Languages of Syria-Palestine and Arabia*, 82–102. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511486890.007
Haider, H. 2014. The VO-OV split of Germanic languages – a T3 & V2 production. *Interdisciplinary Journal for Germanic Linguistics and Semiotic Analysis* 19. 57–69.
Harbert, W. 2007. *The Germanic Languages*. Cambridge: Cambridge University Press.
Harden, D. 1963. *The Phoenicians*. revised. London: Thames and Hudson.
Harris, W. V. 2008. Roman Expansion in the West. In A. E. Astin, F. W Walbank, M. W. Frederiksen & R. M. Ogilvie (eds.), *The Cambridge Ancient History* (Cambridge Histories Online), 104–142. Second. Cambridge: Cambridge University Press.
Harris, Z. 1936. *A Grammar of the Phoenician Language*. New Haven: American Oriental Society.
Haspelmath, Martin & Tadmor, Uri (eds.). 2009. *World Loanword Database*. Leipzig: Max Planck Institute for Evolutionary Anthropology. http://wold.clld.org. (11 February 2015). https://doi.org/10.1515/9783110218442
Heidermanns, F. 1993. *Etymologisches Wörterbuch der germanischen Primäradjektive* (Studia Linguistica Germanica 33). Berlin: Walter de Gruyter. https://doi.org/10.1515/9783110871616
Hempl, G. 1898. The origin of the runes. *Journal of English and Germanic Philology* 2. 370–374.
Hennig, R. 1944. *Terrae Incognitae: Eine Zusammenstellung und kritische Bewertung der wichtigsten vorcolumbischen Entdechungsreisen an Hand der darüber vorliegenden Originalberichte: Altertum bis Ptolemäus*. 2nd ed. Leiden: Brill.
Herold, G. 1941. *Der Volksbegriff im Sprachschatz des Althochdeutschen und Altniederdeutschen* (Junge Forschung: Untersuchungen zur Geistesgeschichte 8). Halle: Akademischer Verlag.
Hetzron, R. 1969. Two notes on Semitc laryngeals in East Gurage. *Phonetica* 19(69–81).
Heusler, A. 1925. *Deutsche Versgeschichte: Mit Einschluss des altenglischen und altnordischen Stabreimverses*. Vol. 1, Parts 1 and 2: Einführendes, Grundbegriffe der Verslehre; Der altgermanische Vers. Berlin: Walter de Gruyter.
Hill, E. 2010. A case study in grammaticalized inflectional morphology. *Diachronica* 27. 411–458. https://doi.org/10.1075/dia.27.3.02hil

Hirt, H. 1921. *Etymologie der neuhochdeutschen Sprache: Darstellung des deutschen Wortschatzes in seiner geschichtlichen Entwicklung*. 2nd ed. Munich: C. H. Beck.

Höfler, O. 1951. Balders Bestattung und die nordischen Felszeichnungen. *Anzeiger der Phil.-hist. Klasse der Österreichischen Akademie der Wissenschaften, Wien* 23. 343–372.

Hoftijzer, J. and Jongeling, K. 1995. *Dictionary of the North-West Semitic inscriptions* (Handbuch Der Orientalistik, Erste Abteilung: Der Nahe Und Mittlere Osten 21). 2 vols. Leiden: Brill.

Holland, G. B. 1980. *Problem of word order change in selected Indo-European languages*. Berkeley: University of California, Berkeley PhD dissertation.

Holst, J. H. 2010. Zur germanischen Satzgliederstellung. In Armin R. Bachmann, Christliebe El Mogharbel & Katja Hunmstedt (eds.), *Form und Struktur in der Sprache: Festschrift für Elmar Ternes*, 143–160. Tübingen: Gunter Narr.

Hornby, A. S. et al. 1963. *The Advanced Learner's Dictionary of Current English*. London: Oxford University Press.

Huehnergard, J. 2015. Biblical Hebrew nominal patterns. In Jeremy M. Hutton & Aaron D. Rubin (eds.), *Epigraphy, philology, and the Hebrew Bible: Methodological perspectives on philological and comparative study of the Hebrew Bible in honor of Jo Ann Hackett* (Society of Biblical Literature Ancient Near East Monographs), 25–64. Atlanta, GA: Society of Biblical Liteature.

Huß, W. 2008. *Karthago*. 4th ed. Munich: C. H. Beck.

Hutterer, C. J. 1975. *Die germanischen Sprachen: Ihre Geschichte in Grundzügen*. Budapest: Akadémiai Kiadó.

Janse, M. 2002. Aspects of Bilingualism in the History of the Greek Language. In J. N. Adams & Simon Swain (eds.), *Bilingualism in Ancient Society. Language Contact and the Written Text*, 332–390. Oxford: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199245062.003.0013

Jasanoff, J. 2003. *Hittite and the Indo-European Verb*. Oxford: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199249053.001.0001

Jenkins, G. K. 1977. Coins of Punic Sicily, Part 3. *Schweizerische Numismatische Rundschau / Swiss Numismatic Review* 56. 5–65.

Jenkins, G. K. and Lewis, R. B. 1963. *Carthaginian gold and electrum coins* (Royal Numismatic Society Special Publications 2). Oxford: Oxford University Press.

Jenni, E. 1981. *Lehrbuch der hebräischen Sprache des Alten Testaments*. Basel: Helbing & Lichtenhahn.

Jensen, H. 1969. *Die Schrift in Vergangenheit und Gegenwart*. Berlin: VEB Deutscher Verlag der Wissenschaften.

Jongeling, K. 1985. Vowel assimilation in Punic. *Jaarbericht van het Vooraziatisch-Egyptisch Genootschap "Ex oriente lux"* 29. 124–132.

Jongeling, K. 2008. *Handbook of Neo-Punic inscriptions*. Tübingen: Mohr Siebeck.

Jongeling, K. and Kerr, R. M. 2005. *Late Punic epigraphy: An introduction to the study of Neo-Punic and Latino-Punic inscriptions*. Tübingen: Mohr Siebeck.

Jørgensen, O. B. 1987. *Billeder og myter fra bronzealderen: Træk af ældre bronzealders religion i Norden* (Jysk Arkæologisk Selskabs Skrifter 20). Aarhus: Aarhus Universitetsforlag.

Juge, M. L. 2009. Why Do Languages Lose Grammatical Categories: Latin and Romance Evidence. *Romance Quarterly* 56(1). 68–80. https://doi.org/10.3200/RQTR.56.1.68-80

Kallestinova, E. D. 2007. *Aspects of Russian word order*. University of Iowa PhD dissertation.

Kallio, P. 2015. The stratigraphy of the Germanic loanwords in Finnic. In John Ole Askedal & Hans-Frede Nielsen (eds.), *Early Germanic Languages in Contact* (NOWELE Supplement Series 27). Amsterdam/Philadelphia: John Benjamins. https://doi.org/10.1075/nss.27.02kal

Karatsareas, P. 2016. Convergence in word structure. Revisiting agglutinative noun inflection in Cappadocian Greek. *Diachronica* 33. 31–66. https://doi.org/10.1075/dia.33.1.02kar
Kästner, H. 1981. *Phonetik und Phonologie des modernen Hocharabisch*. Leipzig: VEB Verlag Enzyklopädie.
Kerswill, Paul. 2010. Contact and New Varieties. In: Raymond Hickey (ed.), *The Handbook of Language Contact*, 230-251. Malden: Blackwell
Kerswill, Paul. 2013. Koinezation. In: Chambers J. K. and Natalie Schilling (eds.), *The Handbook of Language Variation and Change*, 519-536. Malden: Blackwell
Kienast, B. 2001. *Historische Semitische Sprachwissenschaft*. Wiesbaden: Harrassowitz Verlag.
Klein, E. 1987. *Comprehensive Etymological Dictionary of the Hebrew Language for Readers of English*. New York: Macmillan.
Kluge, F. 1926. *Nominale Stammbildungslehre der altgermanischen Dialekte* (Sammlung Kurzer Grammatiken Germanischer Dialekte, Ergänzungsreihe 1). (Ed.) Ludwig Sütterlin. 3rd ed. Halle: Max Niemeyer.
Kluge, F. 2011. *Etymologisches Wörterbuch der deutschen Sprache*. (Ed.) Elmar Seebold. 25th ed. Berlin: Walter de Gruyter.
Knirk, J. 2002. Runes: Origin, development of the futhark, dunctions, applications, and methodological considerations. In Oscar Bandle, Kurt Braunmüller, Ernst Hakon Jahr, Allan Karker, Hans-Peter Naumann, Ulf Telemann, Lennart Elmevik & Gun Widmark (eds.), *The Nordic Languages: An International Handbook of the History of the North Germanic Languages* (Handbooks of Linguistic and Communication Science 22.1–2), vol. 1, 634–648. Berlin: Walter de Gruyter.
Köbler, G. 1994. *Taschenwörterbuch des althochdeutschen Sprachschatzes*. Munich: Wilhelm Fink.
Koehler, L. and Baumgartner, W. 1967. *Hebräisches und aramäisches Lexikon zum Alten Testament*. 3rd ed. Leiden: Brill.
Krahe, H. 1967. *Germanische Sprachwissenschaft*. (Ed.) Wolfgang Meid. Vol. III. Berlin: Walter de Gruyter.
Krahmalkov, C. R. 2000. *Phoenician-Punic dictionary* (Orientalia Lovaniensia Analecta, 90: Studia Phoenicia XV). Leuven: Peeters. https://doi.org/10.1163/9789004294202
Krahmalkov, C. R. 2001. *A Phoenician-Punic Grammar*. Leiden: Brill.
Krause, W. 1966. *Die Runeninschriften im älteren Futhark: Mit Beiträgen von Herbert Jankuhn. I. Text; II. Tafeln* (Abhandlungen der Akademie der Wissenschaften in Göttingen, Philologisch-Historische Klasse, Folge 3 65). Göttingen: Vandenhoeck & Ruprecht.
Krause, W. 1970. *Runen*. Berlin: Walter de Gruyter.
Krause, W. 1971. *Die Sprache der urnordischen Runeninschriften*. Heidelberg: Carl Winter.
Kresić, M. and Roco, G. 2012. Sprachidentität und Kontext. In Claudia Schmidt-Harn (ed.), *Sprache(n) als europäisches Kulturgut – Languages as European Cultural Asset*, 17–38. Innsbruck/Wien/Bozen: StudienVerlag.
Kroll, J. F., Dussias, P. E., Bice, K. and Perrotti, L. 2015. Bilingualism, Mind, and Brain. *Annual Review of Linguistics* 1. 377–394. https://doi.org/10.1146/annurev-linguist-030514-124937
Kroonen, G. 2013. *Etymological dictionary of Proto-Germanic* (Leiden Indo-European Dictionary Series 11). Leiden: Brill.
Krüger, B. 1983. *Die Germanen: Geschichte und Kultur der germanischen Stämme in MItteleuropa*. 4th ed. Vol. 1. 2 vols. Berlin: Akademie-Verlag.
Kuhn, H. 1961. Anlautend p- im Germanischen. *Zeitschrift für Mundartforschung* 28. 1–31.
Kuryłowicz, J. 1961. *L'apophonie en Sémitique*. Wrozław: Zakł. im Ossolińskich.

Laks, L. 2015. Variation and change in instrument noun formation in Hebrew and its relation to the verbal system. *Word Structure* 8. 1–28. https://doi.org/10.3366/word.2015.0071

Lane, E. W. 1863. *An Arabic-English lexicon: Derived from the best and the most copious Eastern sources*. Vol. 1, part 1. London: Williams and Norgate.

Le Page, R. B. and Tabouret-Keller, A. 1985. *Acts of identity: Creole-based approaches to language and ethnicity*. Cambridge: Cambridge University Press.

Lehmann, W. P. 1974. *Proto-Indo-European syntax*. London: Williams and Norgate.

Lehmann, W. P. 1986. *A Gothic etymological dictionary, based on the third edition of Vergleichendes Wörterbuch der gotischen Sprache by Siegmund Feist*. Leiden: Brill.

Levin, S. 1995. *Semitic and Indo-European: The principal etymologies: With observations on Afro-Asiatic* (Amsterdam Studies in the Theory and History of Linguistic Science 129). Amsterdam: John Benjamins. https://doi.org/10.1075/cilt.129

Liberman, A. 2004. Some controversial aspects of the myth of Baldr. *Alvíssmál* 11. 17–54.

Liebich, B. 1899. *Die Wortfamilien der lebenden hochdeutschen Sprache als Grundlage für ein System der Bedeutungslehre. Teil l : Die Wortfamilien in alphabetischer Ordnung: Nach Heynes deutschem Wörterbuch bearbeitet*. Breslau: Preuss und Jünger.

Liestøl, A. 1981. The Viking runes: The transition from the older to the younger Fuþark. *Saga-Book (Viking Society for Northern Research)* 20. 247–266.

Lindow, J. 1997. *Murder and Vengeance among the gods: Baldr in Scandinavian mythology* (Folklore Fellows Communications, 262). Helsinki: Finnish Academy of Science and Letters.

Lipiński, E. 1992. *Dictionnaire de la civilisation phénicienne et punique*. Turnhout: Brepols.

Lipiński, E. 2001. *Semitic Languages: Outline of a comparative grammar*. 2nd ed. Leuven: Peeters.

Little, W., Onions, C. T., Friedrichsen, G. W. S., Fowler, H. W. and Coulson, J. 1964. *The Shorter Oxford English Dictionary*. (Ed.) 2nd. London: Oxford University Press.

Lloyd, A., Lühr, R., Springer, O. and Purdy, K. K. 1998. *Etymologisches Wörterbuch des Althochdeutschen*. Vol. 2. Göttigen/Zurich: Vandenhoeck & Ruprecht.

Lloyd, A. and Springer, O. 1988. *Etymologisches Wörterbuch des Althochdeutschen*. Vol. 1. Göttingen/Zurich: Vandenhoeck & Ruprecht.

Loewenthal, J. 1925. Cultgeschichtliche Fragen. *Beiträge zur Geschichte der deutschen Sprache und Literatur* 49. 63–88.

Looijenga, T. 2003. *Texts and contexts of the oldest runic inscriptions* (The Northern World 4). Leiden: Brill.

Lu, Y. 2016. The aquisition of English past tense in bilingual children. Austin: University of Texas at Austin.

Lucas, C. 2014. Contact-induced change. In Claire Bowern & Bethwyn Evans (eds.), *The Routledge Handbook of Historical Linguistics*, 519–536. London: Routledge.

Lucas, C. and Lash, E. 2012. Contact as catalyst: The case for Coptic influence in the development of Arabic negation. *Journal of Linguistics* 46. 379–413. https://doi.org/10.1017/S0022226709990235

Lutz, A. 2002. When did English begin? In Teresa Fanego, Belén Méndez-Naya & Elena Seoane (eds.), *Sounds, words, texts and change: Selected papers from 11 ICEHL, Santiago de Compostela, 7–11 September 2000* (Current Issues in Linguistic Theory 224), 145–171. Amsterdam/Philadelphia: John Benjamins. https://doi.org/10.1075/cilt.224.11lut

Lutz, A. 2008. Types and Degrees of Mixing: A Comparative Assessment of Latin and French Influences on English and German Word formation. *Interdisciplinary Journal for Germanic and Semiotic Analysis* 13. 1–35.

Lutz, A. 2009. Word accent position and language contact in English and German. *Anglia* 127. 283–306.

Lutz, A. 2012a. Language contact in the Scandinavian period. In Terttu Nevalainen Traugott, Elizabeth Closs (ed.), *The Oxford Handbook of the history of English*, 508–517. Oxford: Oxford University Press.

Lutz, A. 2012b. Norse influence on English in the light of general contact linguistics. In Iren Hegedűs & Aledandra Fodor (eds.), *English historical linguistics 2010*, 15–41. Amsterdam/Philadelphia: John Benjamins. https://doi.org/10.1075/cilt.325.01lut

Lutz, A. 2013. Language Contact and Prestige. *Anglia* 131(4). 562–590. https://doi.org/10.1515/anglia-2013-0065

Macdonell, A. A. 1929. *A practical Sanskrit dictionary: With transliteration, accentuation, and etymological analysis throughout*. Oxford: Oxford University Press.

Mac-Gheogheagan, A. J. 1844. *The history of Ireland, ancient and modern, taken from the most authentic records*. (Trans.) Patrick O'Kelly. Dublin: James Duffy.

Maier, B. 2003. *Die Religion der Germanen: Götter – Mythen – Weltbild*. Munich: C. H. Beck.

Mailhammer, R. 2006. Ablaut – typologisch. Bamberg.

Mailhammer, R. 2007a. *The Germanic Strong Verbs: Foundation and Development of a New System* (Trends in Linguistics. Studies and Monographs 183). Berlin, New York: Mouton de Gruyter. https://doi.org/10.1515/9783110198782

Mailhammer, R. 2007b. Islands of resilience: the history of the German strong verbs from a systemic point of view. *Morphology* 77. 77–108. https://doi.org/10.1007/s11525-007-9113-y

Mailhammer, R. 2008. Ablaut variation in the Proto-Germanic noun: The long arm of the strong verbs. *Sprachwissenschaft* 33(1). 279–300.

Mailhammer, R. 2009. Towards an Aspect-Based Analysis of the Verb Categories of Amurdak. *Australian Journal of Linguistics* 29. 349–391. https://doi.org/10.1080/07268600903232915

Mailhammer, R. 2010. Die etymologische Forschung und Lehre auf dem Gebiet des Germanischen in Deutschland am Beginn des 21. Jahrhunderts. *Studia Etymologica Cracoviensia* 15. 37–65.

Mailhammer, R. 2013. Towards a framework of contact etymology. In Robert Mailhammer (ed.), *Lexical and Structural Etymology: Beyond Word Histories* (Studies in Language Change 11), 9–32. Berlin & New York: De Gruyter Mouton. https://doi.org/10.1515/9781614510581.9

Mailhammer, R. 2014. Etymology. In Claire Bowern & Bethwyn Evans (eds.), *The Routledge Handbook of Historical Linguistics*, 423–441. London: Routledge.

Mailhammer, R., Laker, S. and Vennemann, T. 2003. PGmc. +drepa-, G treffen 'to hit.' *Studia Etymologica Cracoviensia* 8. 103–110.

Mailhammer, R. and Zeidan, R. forthcoming. Cross-linguistic influence in bilingual productions of the English past tense in Arabic heritage speakers of Australian English. *Linguistics Vanguard*. (accepted 06/2019)

Markoe, G. 2000. *Phoenicians*. Berkeley/Los Angeles: University of California Press.

Markowitz, M. n.d. Coinage of Carthage: A presentation given to the Ancient Numismatic Society of Washington DC. www.academia.edu/3455640/The_Coinage_of_Carthage_An_Introduction (15 February 2016).

Matras, Y. 2000. How predictable is contact-induced change in grammar? In Colin Renfrew, April McMahon & Larry Trask (eds.), *Time depth in historical linguistics*, 563–583. Cambridge: McDonald Institute for Archaeological Research.

Matras, Y. 2009. *Language Contact*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511809873

Mayhoff, Karl Friedrich Theodor (ed.). 1906. *Naturalis Historia. Pliny the Elder*. Leipzig: Teubner. www.perseus.tufts.edu/hopper/text?doc=Perseus:text:1999.02.0138 (17 February 2015).

McCarter , Jr., P. K. 2008. Hebrew. In Roger D. Woodard (ed.), *The Ancient Languages of Syria-Palestine and Arabia*, 36–81. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511486890.006

Meakins, F. 2008. Land, language and identity: The socio-political origins of Gurindji Kriol. In Miriam Meyerhoff & Naomi Nagy (eds.), *Social lives in language – sociolinguistics and multilingual speech communities : celebrating the work of Gillian Sankoff*, 69–94. Amsterdam/Philadelphia: John Benjamins. https://doi.org/10.1075/impact.24.08mea

Meid, W. 1967. *Germanische Sprachwissenschaft*. Vol. 3: Wortbildungslehre. Berlin: Walter de Gruyter.

Meid, W. 1992. Die germanische Religion im Zeugnis der Sprache. In Heinrich Beck, Detlev Ellmers & Kurt Schier (eds.), *Germanische Religionsgeschichte: Quellen und Quellenprobleme* (Reallexikon Der Germanischen Altertumskunde, Ergänzungsbände 5), 486–507. Berlin: Walter de Gruyter. https://doi.org/10.1515/9783110877144.486

Meier-Brügger, M. 2010. *Indogermanische Sprachwissenschaft*. 9th ed. Berlin: Walter de Gruyter.

Melchior, L., Gilbert, M. T. P., Kivisild, T., Lynnerup, N. and Dissing, J. 2008. Rare mtDNA Haplogroups and Genetic Differences in Rich and Poor Danish Iron-Age Villages. *American Journal of Physical Anthropology* 135. 206–215. https://doi.org/10.1002/ajpa.20721

Mettinger, T. N. D. 1971. The Nominal Pattern qetulla in Biblical Hebrew. *Journal of Semitic Studies* 16. 2–14. https://doi.org/10.1093/jss/XVI.1.2

Meyer, R. 2011. Amharic. In Stefan Weninger, Geoffrey Khan, Michael P. Streck & Janet C. E. Watson (eds.), *The Semitic Languages*, 1178–1211. Berlin/New York: De Gruyter. https://doi.org/10.1515/9783110251586.1178

Miller, F. 1975. Indo-European: VSO, SOV, SVO, or all three. *Lingua* 37. 31–52. https://doi.org/10.1016/0024-3841(75)90003-0

Milroy, J. and Milroy, L. 1985. Linguistic change, social networks and speaker innovation. *Journal for Linguistics* 21. 339–384. https://doi.org/10.1017/S0022226700010306

Mitchell, B. 1985. *Old English Syntax*. 2 vols. Oxford: Clarendon. https://doi.org/10.1093/acprof:oso/9780198119357.001.0001

Mitchell, B. and Robinson, F. C. 2012. *A Guide to Old English*. Cichester: Wiley-Blackwell.

Möller, H. 1911. *Vergleichendes indogermanisch-semitisches Wörterbuch*. Göttingen: Vandenhoeck & Ruprecht.

Mommsen, Th. (ed.). 1881. *Corpus Inscriptionum Latinarum*. Vol. 8. Berlin: Georg Reimer.

Morstadt, B. 2015. *Die Phönizier*. Darmstadt: Philipp von Zabern.

Moscati, S. 1988. Die Kolonisation des Mittelmeers. In Sabatino Moscati (ed.), *Die Phönizier*, 46–53. Hamburg: Hoffmann und Campe.

Moscati, S. 1996. *Die Karthager: Kultur und Religion einer antiken Seemacht*. (Trans.) Hannelore von Gemmingen-Roser. Stuttgart/Zürich: belser.

Moscati, S., Spitaler, A., Ullendorff, E. and Soden, W. von. 1964. *An introduction to the comparative grammar of the Semitic languages: Phonology and morphology* (Porta Linguarum Orientalium, Neue Serie 6). Wiesbaden: Otto Harrassowitz.

Mossé, F. 1968. *A Handbook of Middle English*. Baltimore: John Hopkins Press.

Movers, F. C. 1841. *Die Phönizier*. Vol. 1: Untersuchungen über die Religion der Phönizier, mit Rücksicht auf die verwandten Götterdienste der heidnischen Israeliten, der Carthager, Syrer, Babylonier und Aegypter. Bonn: Eduard Weber.

Mühlhäusler, P. 1979. Remarks on the Pidgin and Creole situation in Australia. *A.I.A.S Newsletter* 12. 41–53.

Munske, H. H. 1964. *Das Suffix *-inga/–unga in den germanischen Sprachen* (Marburger Beiträge Zur Germanistik 6). Marburg: Elwert.

Muysken, P. 2013. Language contact outcomes as the result of bilingual optimization strategies. *Bilingualism: Language and Cognition* 16. 709–730. https://doi.org/10.1017/S1366728912000727

Myers-Scotton, C. 2006. *Multiple voices: an introduction to bilingualism*. Oxford: Blackwell.

Narten, J. 1973. Zur Flexion des lateinischen Perfeks. *Münchner Studien zur Sprachwissenschaft* 31. 133–150.

Neumann, G. 1971. Substrate im Germanischen? *Nachrichten der Akademie der Wissenschaften in Göttingen, I. Philologisch-Historische Klasse* 4. 75–99.

Neville, A. 2007. *Mountains of Silver & Rivers of Gold. The Phoenicians in Iberia*. Oxfort: Oxbow Books.

Noel Aziz Hanna, P. 2013. On the Loss of High-Frequency Words. *Journal of Germanic Linguistics* 25. 1–36. https://doi.org/10.1017/S1470542713000032

Noel Aziz Hanna, P. 2015. *Wackernagels Gesetz im Deutschen: Zur Interaktion von Syntax, Phonologie und Informationsstruktur* (Studia Linguistica Germanica 122). Berlin: Walter de Gruyter. https://doi.org/10.1515/9783110418484

Odenstedt, B. 1990. *On the origin and early history of the runic script: Typology and graphic variation in the older futhark* (Acta Academiae Regiae Gustavi Adolphi 59). Stockholm: Almqvist & Wiksell.

Odlin, T. 1989. *Language Transfer*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9781139524537

Odlin, T. 2003. Cross-Linguistic Influence. In Catherine J. Doughty & Michael H. Long (eds.), *The Handbook of Second Language Acquisition*, 436–486. Malden, MA: Blackwell. https://doi.org/10.1002/9780470756492.ch15

OED . 1989 *Oxford English Dictionary*. 2nd, online (2000) ed. Oxford: Oxford University Press.

OED2 . 1993 *Oxford English Dictionary*. 2nd on compact disc for the Apple Macintosh. Oxford: Oxford University Press.

OED3 . *The Oxford English Dictionary*. 3rd (selected entries). Oxford: Oxfod University Press.

O'Leary, D. L. 1923. *Comparative grammar of the Semitic languages*. London: Kegan Paul.

Orel, V. E. 2003. *A Handbook of Germanic Etymology*. Brill.

Ortega, I. F. 2013. Colonial representations and Carthaginian Archaeology. *Oxford Journal of Archaeology* 32(1). 53–72. https://doi.org/10.1111/ojoa.12002

Pakendorf, B. 2015. Contact and Siberian languages. In Raymond Hickey (ed.), *Handbook of language contact*, 714–737. Malden, MA: Wiley-Blackwell.

Papaconstantinou, A. 2010. Introduction. In Arietta Papaconstantinou (ed.), *The multilingual experience in Egypt from the Ptolemies to the ʿAbbāsids*, 1–16. Farnham: Ashgate.

Paul, Hermann (ed.). 1900. *Grundriß der germanischen Philologie,*. 2nd ed. Vol. 3. Straßburg: Karl Trübner.

Pfeifer, W. 1997. *Etymologisches Wörterbuch des Deutschen*. 3rd ed. Munich: Deutscher Taschenbuch Verlag.

Pfiffig, A. J. 1969. *Die etruskische Sprache: Versuch einer Gesamtdarstellung*. Graz: Akademische Druck- und Verlagsanstalt.

Philippa, M., Debrabandere, F., Quak, A., Schoonheim, T. and Sijs, N. van der. 2003. *Etymologisch woordenboek van het Nederlands*. Amsterdam: Amsterdam University Press.

Pilkington, N. 2013. An Archaeological History of Carthaginian Imperialism. Columbia: Columbia University.
Pinhas, Y. 2014. Einflüsse semitischer Sprachen auf das Deutsche. University of Munich MA.
Pirazzoli, P. A. and Pluet, J. 1991. *World atlas of Holocene sea-level changes*. Amsterdam/New York: Elsevier.
Plag, I. 2000. Irregular past tense formation in English interlanguage. In Ingo Plag & Klaus P. Schneider (eds.), *Language Use, Language Acquisition and Language History. (Mostly) Empirical Studies in Honour of Rüdiger Zimmemann*, 134–149. Trier: Wissenschaftlicher Verlag.
Plank, Frans (ed.). 1981. *Morphologische (Ir-)Regularitäten: Aspekte der Wortstrukturtheorie*. Tübingen: Narr.
Pohl, W. 2000. *Die Germanen*. Munich: Oldenbourg.
Pokorny, J. 1989. *Indogermanisches etymologisches Wörterbuch*. 2nd ed. 2 vols. Berne: A. Francke.
Polenz, P. von. 1979. *Geschichte der deutschen Sprache*. 9th ed. Berlin: Walter de Gruyter.
Poplack, S. and Levey, S. 2010. Contact-induced grammatical change: A cautionary tale. In Peter Auer & Jürgen Erich Schmidt (eds.), *Language and Space. An International Handbook of Linguistic Variation*, vol. 1, 391–419. Berlin/New York: De Gruyter Mouton.
Prokosch, E. 1939. *A Comparative Germanic Grammar*. Philadelphia: Linguistic Society of America.
Prunet, J.-F. 2006. External evidence and the Semitic root. *Morphology* 16. 41–67. https://doi.org/10.1007/s11525-006-0003-5
Rackham, H. (vols 1–5, 9) (trans.). 1949. *Pliny's Natural History*. 10 vols. Cambridge, MA/London: Harvard University Press/William Heinemann. www.masseiana.org/pliny.htm, (16 February 2015).
Ramat, P. 1981. *Einführung ins Germanische*. Tübingen: Niemeyer. https://doi.org/10.1515/9783111346113
Ramat, P. 1998. The Germanic Languages. In Anna Ramat Giacalone & Paolo Ramat (eds.), *The Indo-European Languages*, 380–414. London: Routledge.
Randall, W. and Jones, H. 2014. On the early origins of the Germanic preterite presents. *Transactions of the Philological Society* 113. 1–40.
Redslob, G. M. 1855. *Thule. Die Phönicischen Handelswege nach dem Norden, insbesondere nach dem Bernsteinlande, sowie Die Reise des Pytheas von Massilien*. Leipzig: J. C. Hinrich. https://archive.org/stream/thulediephnici00redsuoft#page/n0/mode/2up, (27 February 2015).
Rehbein, J. and Karakoç, B. 2004. On contact-induced language change of Turkish aspects: Languaging in bilingual discourse. In C. B. Dabelsteen & N. Jørgensen (eds.), *Languaging and language practices: Multilintual Turkish speakers in North-Western Europe*. Copenhagen: Copenhagen Studies in Bilingualism.
Reichenbach, H. 1947. *Elements of Symbolic Logic*. London: Macmillan.
Ribichini, S. 1986. Agrouhèros, Baal Addir et le Pluton africain. In Commission d'Histoire et d'Archéologie d'Afrique du Nord (ed.), *Histoire et archéologie de l'Afrique du Nord*, 132–141 (Discussion pp. 141-142). Paris: CTHS.
Ringe, D. 2006. *From Proto-Indo-European to Proto-Germanic*. Oxford: Oxford University Press.
Ringe, D. and Taylor, A. 2015. *The development of Old English*. Oxford: Osford University Press.
Rix, H. and Kümmel, M. J. 2001. *Lexikon der indogermanischen Verben*. 2nd ed. Wiesbaden: Reichert.
Romaine, Suzanne. 2005. The Bilingual and Multilingual Community. In: Bhatia, Tej K. & William C. Ritchie (eds.), *The Handbook of Bilingualism*, 385-405, Malden: Blackwell

Rosenfeld, H. 1973. Phol ende Wuodan vuorun zi holza: Baldermythe oder Fohlenzauber? *Beiträge zur Geschichte der deutschen Sprache und Literatur* 95. 1–12. https://doi.org/10.1515/bgsl.1973.1973.95.1

Ross, J. R. 1973. The penthouse principle and the order of constituents. In Clausia Corum, T. Cedric Smith-Stark & Ann Weiser (eds.), *You take the high node and I'll take the low node: Papers from the comparative syntax festival: The difference between main and subordinate clauses, 12 April 1973*, 397–422. Chicago: Chicago Linguistic Society.

Ross, M. 2013. Diagnosing contact processes from their outcomes: The importance of life stages. *Journal of Language Contact* 6. 5–47. https://doi.org/10.1163/19552629-006001002

Rössler, Otto. 1980. Lybien von der Cyrenaica bis zur Mauretania Tingitana. In: Neumann, Günter & Jürgen Untermann (eds.), *Die Sprachen im römischen Reich der Kaiserzeit*, 267–283, Cologne: Rheinland-Verlag.

Röllig, Wolfgang. 1980. Das Punische im Römischen Reich. In: Neumann, Günter & Jürgen Untermann (eds.), *Die Sprachen im römischen Reich der Kaiserzeit*, 285–299, Cologne: Rheinland-Verlag.

Rubba, J. 2001. Introflection. In Martin Haspelmath, Ekkehard König & Wulf Oesterreicher (eds.), *Language Typology and Language Universals*, vol. 1, 678–694. Berlin/New York: Mouton de Gruyter.

Russel, P. 1995. *An introduction to the Celtic languages*. London: Longman.

Sáenz-Badillos, A. 1997. *A history of the Hebrew language: Translated by John Elwolde*. (Trans.) John Elwolde. Cambridge: Cambridge University Press.

Saib, Jilali. 1977. The treatment of geminates: Evidence from Berber. *Studies in African Linguistics* 8, 299–316.

Salaberri, I. 2017. Reconstructing word order in Proto-Germanic: A comparative Branching Direction Theory (BDT) of Old Saxon. Leioa: University of the Basque Country.

Salmons, J. 2015. Language shift and the Indo-Europeanization of Europe. In Robert Mailhammer, Theo Vennemann & Birgit Olsen (eds.), *The Linguistic Roots of Europe*, 103–124. Copenhagen: Museum Tusculanum Press.

Sánchez, Liliana. 2003. *Quechua-Spanish bilingualism: Interference and convergence in functional categories* (Language Acquisition & Language Disorders, 35). Amsterdam: John Benjamins.

Sanmartí, Joan. 2009. Colonial Relations and Social Change in Iberia (Seventh to Third Centuries BC). In: Dietler, Michael & Carolina López-Ruiz (eds.), *Colonial Encounters in Ancient Iberia*, 49–88. Chicago/London: University of Chicago Press.

Scardigli, P. 1973. *Die Goten: Sprache und Kultur*. Munich: C. H. Beck.

Schaffner, S. 2002. Die Götternamen. *Die Sprache: Zeitschrift für Sprachwissenschaft* 41. 153–205.

Scheungraber, C. 2010. *Die Entwicklung der urindogermanischen Nasalpräsentien im Germanischen* (Münchner Beiträge Zur Allgemeinen Und Historischen Sprachwissenschaft 2). Munich: Zentrum historische Sprachwissenschaften.

Schier, K. 1995a. Balder. In Heinrich Beck, Dieter Geuenich & Heiko Steuer (eds.), *Reallexikon der Germanischen Altertumskunde*, vol. 2, 2–7. Berlin: Walter de Gruyter.

Schier, K. 1995b. Gab es eine eigenständige Balder-Tradition in Dänemark? Mit einigen allgemeinen Überlegungen zum Problem der sogenannten 'sterbenden und wiederauferstehenden Gottheiten' in nordgermanischen und altorientalischen Überlieferungen. In Edith Marold & Christiane Zimmermann (eds.), *Nordwestgermanisch*, 125–153. Berlin: Walten de Gruyter.

Schildt, J. 1981. *Abriß der Geschichte der deutschen Sprache: Zum Verhältnis von Gesellschafts- und Sprachgeschichte*. Berlin: Akademie-Verlag.

Schoff, W. H. 1912. *The periplus of Hanno: A voyage of discovery down the West African coast, by a Carthaginian admiral of the fifth century B.C., tranlated from the Greek by Wilfred H. Schoff: With explanatory passages quoted from numerous authors*. Philadelphia: Commercial Museum. https://archive.org/stream/cu31924031441847#page/n7/mode/2up (20 February 2015).

Schrijver, P. 2014. *Language Contact and the Origins of the Germanic Languages*. London: Routledge.

Schröder, F. R. 1929. Neuere Forschungen zur germanischen Altertumskunde und Religionsgeschichte III. *Germanisch-Romanische Monatsschrift* 17. 401–420.

Schröder, F. R. 1953. Balder und der zweite Merseburger Spruch. *Germanisch-romanische Monatsschrift NF* 3. 161–183.

Schröder, F. R. 1962. Balder-Probleme. *Beiträge zur Geschichte der deutschen Sprache und Literatur* 84. 319–357.

Schrodt, R. 1974. *Die Germanische Lautverschiebung und ihre Stellung im Kreise der indogermanischen Sprachen*. Wien: Karl M. Halosar.

Schrötter, F. von and Bauer, N. 1970. *Wörterbuch der Münzkunde*. Walter de Gruyter. https://doi.org/10.1515/9783110830552

Schulz, M. 2006. Götterträne im Watt. *Der Spiegel*.

Schulz, R. 2016. *Abenteurer der Ferne: Die großen Entdeckungsfahrten und das Weltwissen der Antike*. Stuttgart: Klett-Cotta.

Seebold, E. 1970. *Vergleichendes und etymologisches Wörterbuch der germanischen starken Verben*. The Hague: Mouton. https://doi.org/10.1515/9783110821956

Seebold, E. 1999. Die Konstituierung des Germanischen in sprachlicher Sicht. In Heinrich Beck (ed.), *Germanenprobleme aus heutiger Sicht*, 168–182. 2nd ed. Berlin/New York: de Gruyter. https://doi.org/10.1515/9783110800319.168

Seebold, E. 2015. Der epische Eingang im zweiten Merseburger Zauberspruch. In Hermann Reichert & Corinna Scheungraber (eds.), *Germanische Altertumskunde: Quellen, Methoden, Ergebnisse: Akten des Symposiums anlässlich des 150. Geburtstags von Rudolf Much, Wien, 28.-30. September 2012* (Philologica Germanica 35). Wien: Fassbaender.

Segert, S. 1976. *A Grammar of Phoenician and Punic*. Munich: Beck.

Segert, S. 1984. *A basic grammar of the Ugaritic language*. Berkeley/Los Angeles: University of California Press.

Segert, S. 1997. Phoenician and Punic Phonology. In Alan S. Kaye & Peter T. Daniels (eds.), *Phonologies of Asia and Africa: Including the Caucasus*, 55–64. Winona Lake: Eisenbrauns.

Seim, K. F. 2007. Runologie. In Odd Einar HaugenAstrid van Nahl (ed.), trans., *Altnordische Philologie: Norwegen und Island*, 147–222. Berlin: Walter de Guryter. https://doi.org/10.1515/9783110898958.147

Selinker, L. 1972. Interlanguage. *International Review of Applied Linguistics* 10. 209–230. https://doi.org/10.1515/iral.1972.10.1-4.209

Serratrice, L. 2013. Cross-linguistic influence in bilingual development. *Linguistic Approaches to Bilingualism* 3. 3–25. https://doi.org/10.1075/lab.3.1.01ser

Sheynin, H. 2013. Indo-European, Old European and Afrasian, or contra Vennemann. In Jürgen Udolph (ed.), *Europa Vasconica – Europa Semitica? Kritische Beiträge zur Frage nach dem baskischen und semitischen Substrat in Europa*, 181–210. Hamburg: Baar.

Simek, R. 2003. *Religion und Mythologie der Germanen*. Darmstadt: Wissenschaftliche Buchgesellschaft.

Simek, R. 2006. *Lexikon der germanischen Mythologie*. 3rd ed. Stuttgart: Alfred Kröner.

Simms, D. P. A. 2002. *A word for 'wild boar' in Germanic, Italic, Balto-Slavic and Greek and its possible Semitic origins* (Journal of Indo-European Studies, Monograph Series). Vol. 43.
Singer Gestoso, G. 2008. Amber in the Ancient Near East. *i-Medjat* 2. 2–4.
Smith, C. 1997. *The Parameter of Aspect*. 2nd ed. Dordrecht: Kluwer. https://doi.org/10.1007/978-94-011-5606-6
Southern, M. R. V. 1999. *Sub-grammatical survival: Indo-European s-mobile and its regeneration in Germanic* (Journal of Indo-European Studies Monograph Series 34). Washington, DC: Institute for the Study of Men.
Spencer, A. 1998. Morphological Operations. In Andrew Spencer & Arnold Zwickey (eds.), *The Handbook of Morphology*, 123–143. Malden, MA: Blackwell.
Spurkland, T. 2005. *Norwegian runes and runic inscriptions*. (Trans.) Betsy van der Hoek. Woodbridge, Suffolk: Boydell.
Steuer, H. 1998. B. Ursprung und Ausbreitung der Germanen. In Heinrich Beck, Heiko Steuer & Dieter Tempe (eds.), *Reallexikon der germanischen Altertumskunde*, vol. 11, 318–328. Berlin/New York: de Gruyter.
Stichtenoth, D. 1968. *Rufus Festus Avienus: Ora Maritima: Lateinisch und deutsch: Herausgegeben, übersetzt und und mit Anmerkungen versehen von Dietrich Stichtenoth*. Darmstadt: Wissenschaftliche Buchgesellschaft.
Strabo. 1923. *The Geography of Strabo: With an English translation by Horace Leonard Jones*. Vol. 2. 8 vols. London: William Heinemann.
Stroh, F. 1974. Indogermanische Ursprünge, II. Altertum: Germanentum. In Friedrich Maurer & Heinz Rupp (eds.), *Deutsche Wortgeschichte*, vol. 1. 3rd ed. Berlin: Walter de Gruyter. https://doi.org/10.1515/9783110841916.3
Sundquist, J. D. 2006. Syntactic variation in the history of Norwegian and the decline of XV word order. *Diachronica* 23. 105–141. https://doi.org/10.1075/dia.23.1.06sun
Sweet, H. 1900. *The practical stury of languages: A guide for teachers and learners*. New York: Henry Holt.
Szmrecsanyi, Benedikt & Bernd Kortmann. 2012. Introduction: Linguistic complexity. In: Kortmann, Bernd & Benedikt Szmrecsanyi (eds.), *Linguistic Complexity*, 6–34. Berlin/New York: De Gruyter
Szemerényi, O. 1952. The etymology of German Adel. *Word* 8. 42–50. https://doi.org/10.1080/00437956.1952.11659419
Tekin, Talat. 1968. *A Grammar of Orkhon Turkic*. The Hague: Mouton.
Thomason, S. G. 2001. *Language Contact: An Introduction*. Edinburgh: Edinburgh University Press.
Thomason, S. G. 2008. Social and Linguistic Factors as Predictors of Contact-Induced Change. *Journal of Language Contact* 2. 42–56. https://doi.org/10.1163/000000008792525381
Thomason, S. G. and Kaufman, T. 1988. *Language Contact, Creolization and Genetic Linguistics*. Berkeley: University of California Press.
Tichy, E. 2004. *Indogermanistisches Grundwissen*. 2nd ed. Bremen: Hempen.
Todd, J. M. and Eichel, M. H. 1974. A reappraisal of the prehistoric and classical amber trade in the light of new evidence. *Journal of Baltic Studies* 5(4). 295–314. https://doi.org/10.1080/01629777400000311
Tomback, R. S. 1978. *A Comparative Semitic Lexicon of the Phoenician and Punic Languages* (Society of Biblical Literature, Dissertation Series 32). Missoula, Montana: Scholars Press.
Tosco, M. 1995. A Pidgin Verbal System: The Case of Juba Arabic. *Anthropological Linguistics* 37(4). 423–459.

Treumann, B. 2009. Lumbermen and Shipwrights: Phoenicians on the Mediterranean Coast of Southern Spain. In Michael Dietler & Carolina López-Ruiz (eds.), *Colonial Encounters in Ancient Iberia*, 169–190. London/Chicago: University of Chicago Press. https://doi.org/10.7208/chicago/9780226148489.003.0007

Tropper, J. 2003. *Ugaritische Grammatik* (Alter Orient Und Altes Testament 273). Münster: Ugarit-Verlag.

Uffmann, C. 2015. Loanword adaptation. In Patrick Honeybone & Joseph Salmons (eds.), *The Oxford Handbook of Historical Phonology*, 644–665. Oxford: Oxford University Press.

Unger, G. F. 1883. Die Kassiteriden und Albion. *Rheinisches Museum für Philologie (N.F.)* 38. 157–196.

Vennemann, T. 1974. Topics, subjects, and word order: From SXV to SVX via TVX. In John Anderson & Charles Jones (eds.), *Historical Linguistics (Proceedings of the First International Congress of Historical Linguistics, Edinburgh, September 1973)*, vol. 2, 339–376. Amsterdam: North-Holland.

Vennemann, T. 1984. Bemerkung zum frühgermanischen Wortschatz. In Hans-Werner Eroms, Bernhard Gajek & Herbert Kolb (eds.), *Studia Linguistica et Philologica: Festschrift für Klaus Matzel zum sechzigsten Geburtstag: überreicht von Schülern, Freunden und Kollegen*, 105–109. Heidelberg: Carl Winter.

Vennemann, T. 1991. Zur relativen Chronologie von Lautwandel und Wortentlehnung: Die Hochgermanische Lautverschiebung und ahd. *pforta*, *churt* und *impfitōn*. *Incontri Linguistici* 14. 77–83.

Vennemann, T. 1995. Etymologische Beziehungen im Alten Europa. *Der GingkoBaum: Germanistisches Jahrbuch für Nordeuropa* 13. 39–115.

Vennemann, T. 1997. Atlantiker in Nordwesteuropa: Pikten und Vanen. In Stig Eliasson & Ernst Hakon Jahr (eds.), *Language and its Ecology: Essays in memory of Einar Haugen*, 451–476. Berlin: Mouton de Gruyter. https://doi.org/10.1515/9783110805369.451

Vennemann, T. 1998a. Andromeda and the Apples of the Hesperides. In Karlene Jones-Bley, Angela Della Volpe, Miriam Robbins Dexter & Martin E. Huld (eds.), *Proceedings of the Ninth Annual UCLA Indo-European Conference, Los Angeles, May 23, 24, 1997*, 1–68. Washington, DC: Institute for the Study of Man.

Vennemann, T. 1998b. ⁺*plōg-*/⁺*pleg-*, ⁺*furh-*/⁺*farh-*, ⁺*folk-*/⁺*flokk-*, ⁺*felh-*/⁺*folg-*. In Karin Donhauser & Ludwig M. Eichinger (eds.), *Germania Semitica: Deutsche Grammatik – Thema in Variationen: Festschrift für Hans-Werner Eroms zum 60. Geburtstag*, 245–261. Heidelberg: Carl Winter.

Vennemann, T. 1998c. Zur Etymologie von Éire, dem Namen Irlands. *Sprachwissenschaft* 23. 461–469.

Vennemann, T. 2001. Germania Semitica: ⁺aþal- (OE *æðel-*, G *Adel*) 'nobility': With an appendix on Gk. Ἄτλας. *Sprachwissenschaft* 26. 189–204.

Vennemann, T. 2003a. Germania Semitica: ⁺*sibjō*. In Wilhelm Heizmann & Astrid van Nahl (eds.), *Runica – Germanica – Mediaevalia* (Ergänzungsbände Zum Reallexikon Der Germanischen Altertumskunde 37), 871–891. Berlin: Walter de Gruyter. https://doi.org/10.1515/9783110894073.871

Vennemann, T. 2003b. Syntax und Sprachkontakt: Mit besonderer Berücksichtigung der indogermanischen Sprachen des Nordwestens. In Alfred Bammesberger & Theo Vennemann (eds.), *Languages in Prehistoric Europe*, 333–364. Heidelberg: Carl Winter.

Vennemann, T. 2004a. Note on the etymology of PGmc. +*smītan* and +*smiþaz* (E smite, smith, G schmeißen, Schmied, etc.). In Adam Hyllested, Anders Richardt Jørgensen, Jenny Helena Larsson & Thomas Olander (eds.), *Per aspera ad asteriscos: Studia Indogermanica in honorem Jens Elmegård Rasmussen sexagenarii Idibus Martiis anno MMIV* (Innsbrucker Beiträge Zur Sprachwissenschaft 112), 601–613. Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck.

Vennemann, T. 2004b. Phol, Balder, and the birth of Germanic. In Irma Hyvärinen, Petri Kallio & Jarmo Korhonen (eds.), *Etymologie, Entlehnungen und Entwicklungen: Festschrift für Jorma Koivulehto zum 70. Geburtstag*, 439–457. Helsinki: Société Néophilologique.

Vennemann, T. 2005. Glauben wir noch an die Lautgesetze? Zur Etymologie von Phol und Balder im Zweiten Merseburger Zauberspruch. In Gerhard Meiser & Olav Hackstein (eds.), *Sprachkontakt und Sprachwandel: Akten der XI. Fachtagung der Indogermanischen Gesellschaft, 17.-23. September 2000, Halle an der Saale*, 709–733. Wiesbaden: Reichert.

Vennemann, T. 2006a. Ne'er-a-face: A note on the etymology of *penny*: With an appendix on the etymology of *pane*. In Leiv Egil Breivik, Sandra Halveson & Kari E. Haugland (eds.), *'These things write I vnto thee …': Essays in honour of Bjørg Bækken*, 269–290. Oslo: Novus Press.

Vennemann, T. 2006b. The name of the Isle of Thanet. In Andrew James Johnston, Ferdinand von Mengden & Stefan Thim (eds.), *Language and text: Current perspectives on English and Germanic historical linguistics and philology [a festschrift for Klaus Dietz on the occasion of his seventieth birthday 10 December 2005]*, 345–374. Heidelberg: Carl Winter.

Vennemann, T. 2006c. Germanische Runen und phönizisches Alphabet. *Sprachwissenschaft* 34. 367–429.

Vennemann, T. 2009. Zur Reihung der Runen im älteren Futhark. In Wilhelm Heizmann, Klaus Böldl & Heinrich Beck (eds.), *Analecta Septentrionalia: Beiträge zur nordgermanischen Kultur- und Literaturgeschichte [a festschrift for Kurt Schier]* (Ergänzungsbände Zum Reallexikon Der Germanischen Altertumskunde 65), 834–863. Berlin: Walter de Gruyter. https://doi.org/10.1515/9783110218701.3.834

Vennemann, T. 2010. The Source of the Ing Rune and of the Futhark. *Sprachwissenschaft* 28. 1–14.

Vennemann, T. 2011a. English as a contact language: Typology and comparison. *Anglia* 129. 217–257. https://doi.org/10.1515/angl.2011.084

Vennemann, T. 2011b. Griechisch, lateinisch, etruskisch, karthagisch? Zur Herkunft der Runen. In Elvira Glaser, Anna Seiler & Michelle Waldispühl (eds.), *LautSchriftSprache: Beiträge zur vergleichenden Graphematik*, 47–81. Zurich: Chronos.

Vennemann, T. 2012a. Athel and its relatives: Origin and decline of a noble family. *English Studies* 93. 950–986. https://doi.org/10.1080/0013838X.2012.721254

Vennemann, T. 2012b. A note on the etymology of Germanic +*skellingaz* 'shilling.' In Theo Vennemann & PatriziaAziz Noel Hanna (eds.), *Germania Semitica* (Trends in Linguistics: Studies and Monographs 259), 485–495. Berlin: De Gruyter Mouton. https://doi.org/10.1515/9783110301090.485

Vennemann, T. 2013a. The origin of the p rune. *Sprachwissenschaft* 38(281–286).

Vennemann, T. 2013b. The mediae (b g d) in Punic and in the futharc. *Sprachwissenschaft* 38. 265–280.

Vennemann, T. 2013c. Vowels in Punic and in Runic. *Sprachwissenschaft* 38(265–280).

Vennemann, T. 2015a. Radical word order changeby substratal causation. In Juan Camilo Conde-Silvestre & Calle-Martin Javier (eds.), *Approaches to Middle English: Variation, contact and change* (Studies in English Medieval Language and Literature 47), 97–127. Frankfurt a.M.: Peter Lang.

Vennemann, T. 2015b. Origins of runic writing: A comparison of theories. In Robert Mailhammer, Theo Vennemann & Birgit Olsen (eds.), *The linguistic roots of Europe*, 295–341. Copenhagen: Museum Tusculanum Press.

Vennemann, T. 2016. An etymology for the name of A Coruña / La Coruña. *Beiträge zur Namenforschung* 51.

Versteegh, K. 2010. Contact and the Development of Arabic. In Raymond Hickey (ed.), *The Handbook of Language Contact*. Malden, MA: Wiley-Blackwell. https://doi.org/10.1002/9781444318159.ch31

Vierros, M. 2013. Bilingualism in Hellenistic Egypt. In Gergios K. Giannakis (ed.), *Encyclopedia of Ancient Greek Language and Linguistics*. Leiden: Brill Online. http://referenceworks.brillonline.com/entries/encyclopedia-of-ancient-greek-language-andlinguistics/bilingualism-in-hellenistic-egypt-EAGLL_COM_00000047.

Vijūnas, A. 2005. Review of Heizmann & van Nahl (eds) 2003. *Indo-European Studies Bulletin* 11. 131–143.

Voigt, R. 2013. Europa Semitica? Bemerkungen zu Theo Vennemanns semit(ohamiti)istisch-(indo)germanischer Komparatistik. In Jürgen Udolph (ed.), *Europa Vasconica – Europa Semitica? Kritische Beiträge zur Frage nach dem baskischen und semitischen Substrat in Europa* (Beiträge Zur Lexikographie Und Namenforschung 6), 325–359. Hamburg: Baar.

Vries, J. de. 1956. *Altgermanische Religionsgeschichte* (Grundriß der Germanischen Philologie 12.1–2). 2nd ed. 2 vols. Berlin: de Gruyter.

Vries, J. de. 1977. *Altnordisches etymologisches Wörterbuch*. 3rd ed. Leiden: Brill.

Wackernagel, J. 1892. 1892. Über ein Gesetz der indogermanischen Wortstellung. *Indogermanische Forschungen* 1. 333–346. https://doi.org/10.1515/9783110242430.333

Wagner, H. 1975. Studies in the origins of early Celtic traditions. *Ériu* 26. 1–26.

Wagner, M. L. 1969. Die Punier und ihre Sprache in Sardinien. *Die Sprache* 3. 27–42 and 78–107.

Walde, A. and Hofmann, J. B. 1982. *Lateinisches etymologisches Wörterbuch*. 5th ed. 2 vols. Heidelberg: Carl Winter.

Walkden, G. 2009. *The comparative method in syntactic reconstruction*. University of Cambridge PhD dissertation.

Walkden, G. 2014. *Syntactic reconstruction and Proto-Germanic*. Oxford: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780198712299.001.0001

Walter, L. Edna (ed.). 1919. *Mother Goose's Nursery Rhymes*. London: A. & C. Black. http://books.google.de/books?id=wWkyIh4VuCoC&pg=PA31&lpg=PA31&dq (3 December 2011).

Wansborough, J. E. 1996. *Lingua franca in the Mediterranean*. Richmond, Surrey: Curzon Press.

Watkins, C. 1964. Preliminaries to the reconstruction of Indo-European sentence structure. In H. G. Lunt (ed.), *Proceedings of the Ninth International Congress of Linguists*, 1035–1045. The Hague: Mouton.

Watkins, C. 1976. Towards Proto-Indo-European syntax: Problems and pseudoproblems. In Sanford B. Steever, Carol A. Walker & Salikoko S. Mufwene (eds.), *Papers from the Parasession on Diachronic Syntax, April 22 1976*, 305–326. Chicago: Chicago Linguistic Society.

Weerman, F. 1989. *The V2 conspiracy: A synchronic and a diachronic analysis of verbal positions in Germanic languages* (Publications in Language Sciences 31). Dordrecht: Foris.

Wehr, H. 1985. *Arabisches Wörterbuch für die Schriftsprache der Gegenwart: Arabisch-Deutsch*. 5th ed. Wiesbaden: Otto Harrassowitz.

Weinreich, U. 1968. *Languages in Contact*. 6th ed. The Hague: Mouton.

Weinreich, U., Labov, W. and Herzog, M. 1968. Empirical Foundations for a Theory of Language Change. In W. P. Lehmann & Yakov Malkiel (eds.), *Directions for Historical Linguistics: A symposium*, 95–195. Austin: University of Texas Press.

Wessely, K. 1913. Über den Bernstein in seiner kulturhistorischen Bedeutung. *Schriften des Verienes zur Verbreitung Naturwissenschaftlicher Kenntnisse in Wien* 53. 249–281.

West, M. 1953. *A general service list of English words with semantic frequencies*. rev. and enlarged. London: Longman.

Wigram, George V. 1996. *The Englishman's Hebrew concordance of the Old Testament: Coded with Strong's concordance numbers*. Peabody, Massachusetts: Hendrickson. [Reprint of 3rd edn. of 1874, with Strong's numbering added. 6th printing 2006.]

Winford, D. 2003. *An Introduction to Contact Linguistics*. Maldon, MA: Blackwell.

Winford, D. 2005. Contact-induced changes: classification and processes. *Diachronica* 22. 373–427. https://doi.org/10.1075/dia.22.2.05win

Wittke, A.-M. 2011. Commerce and trade in the Mediterranean world 7th/6th cents. – 4th cent. BC. In Anne-Maria Wittke, Eckart Olshausen, Richard Szydlak & Vera Sauer (eds.), *Brill's New Pauly Supplements I – Volume 3: Historical Atlas of the Ancient World*. Leiden: Brill.

Wolff, Ludwig (ed.). 1965. *Otfrids Evangelienbuch* (Altdeutsche Textbibliothek 49). 5th ed. Tübingen: Max Niemeyer.

Woods, C. 2006. Bilingualism, scribal learning, and the death of Sumerian. In Seth L. Sander (ed.), *Margins of writing, origins of cultures*, 91–120. Chicago: The Oriental Institute.

Wright, W. 1896. *A grammar of the Arabic language*. (Trans.) W. Robertson Smith. 3rd ed. Cambridge: Cambridge University Press.

Yip, V. and Matthews, S. 2007. *The Bilingual Child. Early Development and Language Contact*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511620744

Zalloua, P. A., Platt, D. E., El Sibai, M., Khalife, J., Makhoul, N., Haber, M., Xue, Y., et al. 2008. Identifying Genetic Traces of Historical Expansions: Phoenician Footprints in the Mediterranean. *The American Journal of Human Genetics* 83. 633–642. https://doi.org/10.1016/j.ajhg.2008.10.012

Þorgeirsson, H. 2012. Late placement of the finite verb in Old Norse fornyrðislag meter. *Journal of Germanic Linguistics* 24. 233–269. https://doi.org/10.1017/S1470542712000037

Index

This book presents a new and innovative theory on the origin of the Germanic languages. This theory presents solutions to four pivotal problems in the history of Germanic with critical implications for cultural history: the origin of the Germanic writing system (the Runic alphabet), the genesis of the Germanic strong verbs, the development of the Germanic word order, and etymologies for key elements of the Germanic lexicon. The book proposes that all four problems can be solved if it is hypothesized that over 2,000 years ago the ancestor of all Germanic languages, Proto-Germanic, was in intensive contact with Punic, a Semitic language from the Mediterranean. This scenario is explored by focusing on linguistic data, supported by an interdisciplinary mosaic of evidence. This book is of interest to anyone working on the linguistic and cultural history of the Germanic languages.

ISBN 978 90 272 0401 1
9 789027 204011

John Benjamins Publishing Company