# [0856] A note on the development of Old Wangeroogic *e and *o in open syllables 

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§1.0 This article draws attention to some developments of the Old Wangeroogic stem-vowels short $* e$ and $* o$ in open syllables that seem not to have been clearly stated.
§1.1 Old Weser Frisian 'replicated $a$-umlaut' was first adequately described in 1932 by the great Swedish scholar Ernst Löfstedt.

The Frisian speech-area is divided into West (more or less co-extensive with the modern Dutch province of Friesland, although it extended further south along the coast beyond the former Zuider Zee in the Middle Ages), East (from Friesland along the North Sea coast and into Germany, comprising the two sub-divisions of the territories around the rivers Ems and Weser), and North (along the western coast and islands of SchleswigHolstein north of the river Eider to the present Danish border). Whereas West and East Frisian are represented in the Old Frisian manuscripts, ${ }^{1}$ the North Frisian dialects, which can be grouped into Island and Mainland varieties, are only attested in modern times. Therefore, their 'Old' stage has to be reconstructed, as does Proto-Frisian, the ancestor of all forms of Frisian. ${ }^{2}$

Old Weser Frisian is attested in two Old Frisian Riostring codices (R1 and R2) and two fragments (R3 and R4) ${ }^{3}$. Modern Weser Frisian is copiously recorded in the form of the dialect of Wangerooge, the easternmost of the East Frisian islands and very poorly represented in the form of the dialect of Wursten (the coastal strip north of the mouth of the

[^0]Weser, between Bremerhaven and Cuxhaven) ${ }^{4}$; neither of these is the direct descendant of the language found in the Old Frisian Riostring manuscripts, although they are closely related to it ${ }^{5}$.

In view of the situation outlined above, it will be necessary to operate in this article with the concepts 'Proto-Frisian', 'Old Weser Frisian' in general (which embraces both attested Old Riostring and the unattested ancestors of the modern dialects of modern Wangerooge and Wursten) and 'Old Wangeroogic' in particular.
§1.2 Löfstedt established rules governing the outcomes of the Proto-Frisian stem-vowels short $* i$ and $* u$ in original open syllables in Wangeroogic. Proto-Frisian ${ }^{*}$ yielded $i i$ (and, with later rounding, $u \ddot{u}$ ) unless a ProtoFrisian $-a$ had followed in the next syllable, in which case the outcome was $i$ (ii). Analogously, Proto-Frisian *u yielded $u u$ unless a Proto-Frisian $-a$ had followed in the next syllable, in which case the outcome was $u$. (On their presumed phonetic/phonological values, see footnote 25.) In the position before $-a$, Löfstedt showed that Proto-Frisian $* i$ and $* u$ had undergone lowering to ${ }^{*} e$ and $* o$, and merger with PFris. */e/ and */o/. These developments are indeed indicated by spellings in the Old Frisian Riostring manuscripts (cf. Löfstedt 1932: 14-18, 25-26).

Compare the following examples.

## For PFris. *i:

Wang. biitiin "bitten" Old Riostring ebitin
(Wang. wüüduu "widow"
Old Riostring widue)
versus
Wang. witte "to know"
(Wang. wükke pl. "weeks"

[^1]For PFris. *u:
Wang. sиипии "son" Old Riostring suпи
versus
Wang. kumme "to come" Old Riostring koma
Other sound developments that are in evidence in these forms are the lengthening of absolute final *-i\# and *-u\# after Old Wangeroogic light syllables (on the standard interpretation, cf. Hofmann 1961: 305) and according to Versloot - the gemination of consonants after light open syllables not containing the stem-vowels OWang. *i and *u (cf. 1996b and 2001: 425, 426-27, where Versloot illustrates the distribution of these changes by citing the pair Wang. itte "to eat" < *eta and iitiin "eaten" < *itin).

As can be seen, the Old Weser Frisian process was identical to that of North-West Germanic ' $a$-umlaut', hence my use of the term 'replicated' (§1.1). (The similiarity extends to the detail of the 'neutral' effect of a following $-u$; the difference is, of course, that long - $\bar{o}$ was not found any more in unaccented syllables to cause the change.) The conditions for it existed because sequences $i \$ \mathrm{C} a^{6}$ still occurred after the operation of NWGmc $a$-mutation and because the former rule - shared with Old English - that allowed only $i$ and $u$, but not $e$ and $o$, before a single nasal ceased to operate (Löfstedt 1932: 17-19, 20, 23, 28; cf. Luick 1914-21: §81). Relatively few words were affected by the latter change.
§2.0 The present contribution concerns the development of OWesFris. *e and * $O$ in open syllables in Wangeroogic when not the products of 'replicated $a$-umlaut'.
§2.1. Löfstedt rightly observed (1932: 11) that if his account is correct, then $i(i i)$ in open syllables must be the reflex not only of OWang. * $e$ from PFris. * $i$ by 'replicated $a$-umlaut', but also of OWang. *e from other sources, that is to say: (1) PFris. *e from WGmc. *e; and WGmc. *a when (2) fronted or (3) subject to $i$-mutation; and (4) WGmc. * $u$ when subject to $i$-mutation.

He then proceeds to offer examples that show this to be the case (1932: 11-12).

[^2]| Wang. lize "to read" | WGmc. *lesan |
| :--- | :--- |
| (brüdduu nt. pl."boards" | WGmc. *bredu) |
| Wang. littii "late" | OWang. *lete, WGmc. *lat" |
| (füttuu nt. pl. "vats" | WGmc. *fatu $\rightarrow$ OWang. *fetu by <br> analogy with the sg. fet from |
|  | WGmc.*fat) |

Wang. ipiin "open"
§2.2. The various developments explicated by Löfstedt are well illustrated by the present paradigms of Wangeroogic light-syllabled verbs that show Germanic class II weak inflection in PGmc. *- $\bar{o}(j)$ an (for the formation, cf. Cowgill 1959; Jasanoff 2003: §81). ${ }^{9}$

Ehrentraut gives a listing of such verbs with the stem-vowels WGmc. $*_{i}$ and *u as consituents of his sixth class of 'transitional verbs' (Übergangszeitwörter), Eh I 53-54. (Löfstedt used some of these verbs to illustrate his sound-law, 1932: 5, 9, 15; 21, 29-30, 31.) The forms of the verbs liinii "lehnen" (OE hlinian; OHG hlinēn) and wuunii "wohnen" (OE wunian) neatly exemplify the conditioning factors and the reflexes.
7. Wang. littii presupposes OWang. *lete (so Löfstedt 1932: 11 fn 7 ); apparently, the form of the adverb (OFris. lete) has replaced the Proto-Frisian positive form *let, cf. Saterl. leet; Syltr. leet; OWFris. and ModWFris. let.
8. Cf. Århammar 1968a: 64; Szemerényi 1985: 469.
9. Weak verbs of Germanic classes I and II have merged formally in Wangeroogic in the present, except in the 2 nd and 3rd person singular indicative of light-syllabled forms, where the endings contrast as -est -et versus -iist -iit (see §4.2.2 below, with footnote 22). In the infinitive, all verbs with heavy stem-syllables are endingless (cf. Versloot 2001: 428-29), whereas class I and II weak verbs with light stem-syllables all end in -ii, from OFris. disyllabic -ia, the generalized class II ending (cf. footnote 12).
In Old Frisian, the yod of the PGmc. class I formative suffix $*_{-j a n}$ was lost after consonants, including after $r$ (fremma "to perform", nera "to nourish, nurture", hēra "to hear"), differing in this respect from Old English (which preserves the yod only after light syllables ending in -r: fremman, nerian, hēeran) and Old Saxon (preservation in all contexts: fremmian, nerian, hōrian). Compare Wangeroogic -, nirii, heer. Further examples of original light-syllabled class I verbs in Wangeroogic are: tirii "zehren, auch theeren" OFris. tera; [him] wirii "sich beeilen, wehren" OFris. wera; wan(n)ii "gewöhnen" Eh I 46a, 83b (PGmc. cl I *wan-ja-: ON venja; OE wennan; OS wennian; OHG giwennan - cf. Löfstedt 1932: 27-28). There were, of course, no class I lightsyllabled verbs with stem-vowel -o-.
In Frisian, as in English, most original class III weak verbs have joined class II.

| inf．／1sg． | 2sg． | 3sg． | pl． |
| :--- | :--- | :--- | :--- |
| liinii | linnest | linnet | liiniit |
| wuunii | wunnest | wunnet | wuuniit |

The Old Frisian endings were as follows：

$$
\text { inf. -ia, 1sg. -ie, } \quad 2 \text { sg. -ast, } \quad \text { 3sg. -ath, } \quad \text { pl. -iath. }
$$

§2．3 However－although it was not Löfstedt＇s central concern in his article to consider this matter－I would like to point out that there is an exception to the scheme reported in §2．1．As Hofmann tantalizingly writes with regard to the development of short vowels in Wangeroogic open syllables，OWang． ＊$e$ generally became $i$（ $i$ with rounding），but＇vereinzelt auch $a$＇（1961： 314）．Unfortunately，he did not elaborate further．In fact，the $a$－reflex seems to be limited to word－initial position before $r$ and is found in only the following words：

Wang．ariit＂Erbse＂Eh I 358 ＜OWang．＊erit（OS erit，eriwit；MDu．erwite； MLG erwete；OHG arawīz，arawiz etc．，MHG ärwiz，etc．）．
Wang．arii＂erndten＂，iinarii＂einerndten＂Eh I 55．OFris．era（e．g．J，ed． Buma，Ebel and Tragter－Schubert 1977：XIII 16）＂to plough＂－on the analogical ending in Wangeroogic，see footnote 9；OE erian＂to plough， till＂；［OS †erian，despite being cited from time to time，is not attested，cf． Matzel 1989： 455 fn 2 ，but note MLG éren］；OIc．erja＂to plough＂； Gothic attests only a single present participle form，acc．sg．m．arjandan， Lc 17／7）．In Weser Frisian（for Wursten Frisian，see footnote 10），the verb has come to mean＂to reap，harvest＂，presumably via semantic widening to＂work arable land＂．The form ariing f．＂die Erndte＂I 358a， being unparallelled，is probably a Wangeroogic deverbal formation（cf． niriing to nirii and tiriing to tirii）．（Siebs was unable to attest ariing， 1889：47）．

We have to regard as genuine the different outcome from that seen in such forms as Wang．nirii＂nähren＂Eh I 80 （OFris．nera），and Wang．tirii ＂zehren，auch theeren＂Eh I 76a（OFris．tera）；on the endings，see footnote 9．In the absence of any indications to the contrary，we can consider this as a regular development．${ }^{10,11}$

[^3]§2.4.1 Löfstedt did not treat of the development of Proto-Frisian *o, although he did assert at one point (1932: 23) that 'Altwang. $o$ in offener Silbe erscheint neuwang. als $u$ ', citing Siebs 1901: 1201.

I give some of the examples that Löfstedt offers (1932: 23).

| Wang. bude "Bote" | OWesFris. boda (R1) |
| :--- | :--- |
| Wang. fulle "Füllen" | OWesFris. *fola [OWFris. folla (Ro)] |
| Wang. huze "Strumpf" | OWesFris. *hosa |
| Wang. hunne "Hahn"" | OWesFris. hona (R1) |
| Wang. munne(-heer) "Mähne" | OWesFris. *mona [OEmsFris. mona (F)] |

§2.4.2 Siebs 1901: 1201, discussing the development of Old Frisian vowels in Wangeroogic, says ' $o$ in offener Silber aber erscheint als wg. $u$ ' (repeated 1380), giving Wang. budə "Bote", fulə "Fohlen and kulə "Kohle" as examples. ${ }^{12}$
(cf. Hofmann 1961: 306-07, 316, 317). But nor is it certain that Wursten Frisian had the change.
11. In the only surviving form of Ems East Frisian, Saterlandic (forms are cited from the dictionary of Fort, 1980), the word Ate f. "pea" (with loss of $r$ before a dental) may show the same development of OEFris. *\#e- as in Wangeroogic. (Mainland North Frisian forms that seem to point to a pre-form *aret in contrast to the rest of Germanic, I regard as non-indigenous developments, cf. Löfstedt 1931: 67 fn8: ‘wenn das Wort überhaupt bodenständig entwickelt ist'.)
However, Saterl. Aden m. "harvest" (with derivative adenje "to harvest"), unlike Wang. áriing, appears to reflect the hapax $\mathrm{O}($ Ems )Fris. arn f. (ed. Buma-Ebel 1967: 240: §13a; cf. Hofmann 1985: 155, note 22: 4) - and thus both has *\#a- and lacks an open syllable. Saterl. Aden shows the Ems Frisian development of *-rn->*-rdn-> $-d n-(>-d e n)$, cf. OEmsFris. bern $>$ Saterl. Bäiden "child", cf. Upgant bidnern "children". O(Ems)Fris. arn could be a cognate of OHG arn f., MLG, MDu. arn (although OFris. †ern with fronting might be expected, cf. van Helten 1907: 19, 99). Alternatively, both it and the Saterlandic form could be borrowed from Low German arn.
12. However, in his summary of developments on page 1380, Siebs cites Wang. hoppii "hoffen", kokkii "kochen", monnii "mahnen" as developments of OWang. *o. Under Wang. $u$ (1901: 1380), he explains these apparent exceptions to the rule that the reflex was $u$ in open syllables with the claim that they had been in closed syllables: 'afries. ... Inf. mon | ia sprich *mon | jo'. However, in Saterlandic, vowels in light syllables before the ending $-j e$ behave as in an open syllable, undergoing lengthening (e.g. hoopje "hoffen", moakje "machen" < OFris. *makia, cf. Hoaze "hare" < OFris. *hasa; cf. also §6.1, below), so Löfstedt's analysis is to be preferred (for all of East Frisian): 'die afries. Endung war -ia (< -ēia) < -ōian; im Altwang. muss dieser Diphthong fallend gewesen sein: -ía $\rightarrow$-íe $\rightarrow$-ii' (1932: 5). The Saterlandic outcome -je must be relatively late.

Note also Hofmann's statement concerning the development of $o$ in light syllables: 'normalerweise zu u' (1961: 314). Versloot 2001: 738 speaks of Wang. /o/ in an open syllable being raised to $/ \mathrm{u} /$.
§2.5 On the basis of the statements by Siebs, Löfstedt, Hofmann and Versloot, one might expect that every OWang. *o in an open syllable became Wang. $u .^{13}$ This is not the case, however. In all Löfstedt's examples, the vowel stood before OWang. *-a (even though none is the product of 'replicated $a$-umlaut'); he gave no examples in which it stood before OWang. $*_{-i}$ and $*_{-e}$, which yielded Wang. $-i i .{ }^{14}$ In this environment, we find such forms as the following.
Wang. ollii nt. "das Oel"
Wang. rokkii m. "der Nebel"
OFris. oli*
Wang. strottii m. "die Gurgel"
OWesFris. *roke
Wang. broðii "dampfen"
OWesFris. *strote
OWesFris. *broðia
13. It is important to note that, although PGmc. * $u$ is the ultimate source of most OWang. $o$-vowels, they developed at different stages: the original batch of $o$ 's is the result of North-West-Germanic ' $a$-umlaut', while a later one is the product of Old Weser Frisian 'replicated $a$-umlaut'. A further source of OWang. *o was WGmc. * $a+$ nasal without $i$-mutation, as in $\mathrm{O}($ Wes $)$ Fris. hona and mona cited in §2.4.1 and monia cited in this section.
In fairness to Löfstedt, it must be said that he was principally concerned with developments of Proto-Frisian ${ }^{*} u-$ not ${ }^{*} o-\mathrm{in}$ an original open syllable, so he was, strictly speaking, only concerned with $o$ by Old Weser Frisian replicated $a$ umlaut. Note his careful wording. On the one hand, he speaks of the development of Germanic*i(1932:4,7); on the other, of the development of Proto-Frisian *u (1932: e.g. 21, 24, 31). On pages $9-10$, he expressly points up the divergent development of Gmc. *i before $-i$ and $-u$ in the following syllable and before $-a$.
14. Regarding the development of OWang. *-e in final syllables, Löfstedt writes (1932: 26 fn2): ‘Siebs, Pauls Grdr. I'. S. 1206 Anm. 4 lässt Wang. nutte aus *hnote entstanden sein. Da jedoch im Wang. wie im Saterl. afries. auslautendes ee schwindet, ist offenbar vom Plural *hnota auszugehen.' Löfstedt is correct about the derivation of Wang. nutte (cf. in fact Siebs 1901: 1244), but both scholars are wrong about the outcome of OWang. *-e in final syllables. Although lost after heavy syllables, after light syllables *-e became -ii, as can be seen from the examples about to be cited in the text. Hofmann (1961:319) makes the same mistake: 'Bezeugt ist nur afr. mele, sowie *meli durch wang. mílii FrA. I, 381.' Millii "das Mehl" can reflect *mele, so there is no need to posit $\dagger^{*}$ meli. (On millii, compare also Löfstedt 1932: 4 A1.)
An example of Wang. - $i i$ from ${ }^{-}-i$ is offered by siivii < OWang. *sivi < WGmc. *siti (cf. Löfstedt 1932: 4), see also the discussion of ollii below in the text §4.1.
The unaccented vowel inventory of Wangeroogic consisted of $\mathrm{i}(:)$, e (= $\quad$ ), $\mathrm{u}(:)$, cf. Versloot 2001: 426; 2002: 229 fn7.

Wang. hoppii "hoffen"<br>OFris. hopia<br>Wang. monnii "mahnen"<br>OFris. monia

The derivation of these forms will be discussed in more detail in the following sections, as will the assumed process of their development in terms of phonemics.
§3.1 Previous scholars have not given the full story because they have tended to make general statements without paying sufficient attention to how phonological environment can determine the development of vowels in Wangeroogic. Factors that can influence vocalic reflexes of all kinds include:
(1) Position in (a) an open or (b) a closed syllable, (c) word-initially or (d) word-finally.
(2) What vowel is in the following syllable.
(3) The surrounding consonants.
(a) before labials and gutturals versus dentals
(b) before $r$
(c) in a 'rounding environment ${ }^{15}$
§3.2.1 Here follows a brief overview of reflexes of OWesFris, * $o$ in these contexts, so far as they are relevant.
(1a) This environment is the subject of the present article.
(1b) The vowel was generally retained in closed syllables, e.g. broth "der Dampf", dochter "die Tochter", holt "das Holz". ${ }^{16}$
(2) is also the concern of the present article.
§3.2.2 In addition, we may note that for other vowels:
15. 'Rounding environment' in Wangeroogic awaits a definitive description. It included the positions (i) before -иu in the following syllable, e.g. wï̈̈duи "widow" (OFris. R widue, §1.2), "füttuи "vats" (<*fetu, §2.1), and (ii) adjacent to labials and liquids, e.g. pü̈̈per "pepper" (OFris. E piper), pürre "pear" (< *pera). It is unclear to what extent the consonant preceding the vowel is relevant. There seems to be a hierarchy, in that 'rounding consonants' are over-ridden by -ii in the following syllable: biivii "beben" (< OFris. bivia; cf. OE bifian), ipiin "open" (< *epin, §2.1). A similar environment influences the reflexes of the Old Frisian diphthongs $* i \bar{a}$ and $* i \bar{u}$ ( $* i \bar{o}$ ), cf. Århammar 1969: 61-62; and possibly the outcome of short *o in closed syllables, cf. footnote 16.
16. However, there are also instances of an -u-reflex in closed syllables - perhaps in a 'rounding environment'? - as in: pud "die Kröte" (< ?*podda, cf. Modern East Frisian of Harling podde, beside NWGmc. *paddan-; although pudde is found in 'Ostfriesisch' Low German), wunt "der Handschuh; mitten" (OWang. *wont, cf. Modern East Frisian of Harling wuunthe; Du., LG. want).
(1c) was seen to be relevant for \#e-(cf. §2.3).
(1d) and (3b) are relevant for the development of long ${ }^{*} \bar{e}$ (cf. Versloot 2001: 426).
(3a) Long *oo became au before labials and gutturals, e.g. saum "schön" (cf. OS sōmi), lauch "das Dorf" (OFris. lōch/lōg "Ort, Stelle, Stätte"); versus oo before dentals, e.g. hood "der Hut".
(3c) Although this environment affects $i i$ and $i$, the products of OWang. $*_{i}$ and ${ }^{*} e$ (above $\S \S 1.2,2.1$ ), it does not seem to affect the development of *o in open syllables. However, it may be of relevance for the development in closed syllables, cf. footnote 16 and below §5.3.

Failure to take account of the various environments has prevented these developments from being properly described.
§4.0 In this section, words that display a reflex of OWang. * $o$ in open syllables will be examined in greater detail with the aim of establishing them as genuine developments. The best forms for establishing sound-laws are inherited words, preferably a group of formally similar but functionally distinct items that are not explicable as loan-words or -forms, or as the product of analogy.

However, the main point is the Wangeroogic development that the sound has undergone, not the ultimate origin of the words that display the change.
§4.1 I will first consider nouns. ${ }^{17}$

- rokkii m. "der Nebel" (Eh I 388a; also I 108 'wut falt de rokkii [Nebel] weit dille', II 72) is a good word to start with, as it is unlikely to have been borrowed. Of the surrounding idioms, ${ }^{18}$ only the Island North Frisian dialect of Helgoland has a cognate, which is formally divergent. The Wangeroogic form presupposes OWang. *roke, which has a formal match in Old West Norse roka, a feminine $\bar{o} n$-stem. ${ }^{19}$ Norse maintains

17. Adjectives offer a meagre harvest. Snottiig "rotzig" (Eh I I 102) could be influenced by base-form snot "der Rotz" (Eh I 394). This leaves monniich "mancher" (Eh I 98; ORiost monich).
18. Wangeroogic rokkii "fog, mist" is not to be confused with MLG «roke〉 = rö̈ke "Geruch; odour" (cf. Lasch, Borchling, et al.: s.v.).
19. Helgolandic has a term see-reeken "Seerauch", defined as forming "im Winter, wenn das Wasser wärmer ist als die Luft" (Nils Århammar, personal communication), reflecting *-rööken $<$ *-rokna-, which bears a similar relation to ${ }^{*}$ rokōn- as do the
the original gender, but shows somewhat divergent semantics - at least as reported by the lexica. Cleasby-Vigfusson gloss the simplex "whirlwind" and the compound mjallroka as "loose snow whirled by the wind" (mjoll "fresh powdery snow") and sjá-roka "sea-spray" (see footnote 19). Note also the Wangeroogic derived adjective rokkiig "nebelig" Eh I 101.

- strottii m. "die Gurgel" (Eh I 397a) represents an $s$-mobile variant of the word seen in English throat. Like rokkii, this word was originally a feminine $\bar{o} n$-stem: OE brote f. $\bar{o} n$-stem (brotu is secondary, cf. SieversBrunner 1965: §278 A1); OS strota* (only acc. sg. strótun attested, ed. Wadstein 1899: 97a 33), MDu. strote; OHG drozza, MHG strozze, NHG dialectal Strosse (western edge of the speech area, cf. Herbermann 1974: 79). The word is not attested as a simplex in Old Frisian (only in throtbolla and strotbolla "Adam's apple; larynx"). In the other modern dialects, feminine, masculine and common gender occur. Note Saterl. Strot (m.); Island North Frisian: F.A. strööd (m.), Sylt Strööt (c.); Mainland North Frisian: Mooring strooz (f.), Hallig strää (f.).
- ollii nt. "das Oel" indicates OWang. *oli or *ole. Compare OFris. olie; Saterl. Oulje, if this is a native form; f.-a. ööli. ${ }^{20}$ Note also the derived adjective olliig "öllig" (Eh I 99) and the verb ollii "ölen" (Eh I 80b) < OFris. olia; cf. §4.2.1 and footnote 22.
words for "eagle" to each other in Old High German: aro (< *aran-) and arn (< *arna-). Alternatively, the suffix could be influenced by a semantically related word such as OFris. wolken "cloud" < PGmc. *wulkna-.
Elsewhere in West Germanic, there is only the dialectal form $\operatorname{Rach}, \operatorname{Ro}(a) c h$ "Nebel" recorded near Innsbruck (cf. Århammar 1968b: 292) and in East Prussia, alongside Re(e)cha forms; for these, see Deutscher Wortatlas II: 'Nebel'.
In addition to Old West Norse, Faroese attests the word, with the meanings "vapour from the ground"; "sea-spray" and "snow-storm", cf. Young and Clewer 1985: s.v. On formal grounds, the base of the derivative(s) is evidently the strong verb *reuk-a-, cf. Seebold 1970: 379-80, although the forms under discussion are lacking. Words for "smoke" have a propensity to develop meanings along the lines of "steam", "vapour", "haze", "mist", "fog". In the present context, in addition to Wang. smeik "Rauch, Dampf" (Eh I 394), I would draw attention to German Naßrauch "fog" and (arktischer) Seerauch (cf. above) and the English term Arctic sea-smoke: 'a type of advection fog formed when cold air drifts across relatively warm water'.

20. Frisian also attests a sole example of ele (F, ed. Buma-Ebel 1972: XVI 2, in an alliterating formula: bi ele ond bi ongle "with oil and tallow"), corresponding to OE ele. The word was evidently borrowed into Old Frisian in the form *oli twice, once before $i$-mutation, once after.
§4.2.1 There is a group of 10 weak verbs that neatly illustrates the development of OWang. *o. They are: borrii "bohren", broðii "dampfen", farrottii "verfaulen", farsollii "versohlen, besohlen", hoppii "hoffen", kokkii "kochen", lovii "geloben", mollii "brocken", monnii "mahnen", ollii "ölen". ${ }^{21}$

They all show the forms of class II verbs (cf. footnote 9).

- borrii "bohren (mit einer Ahle)" - Saterl. boorje, F.-A. bööri; OHG borōn.
- broðii "dampfen" is seemingly without cognates. It appears to be derived from the noun broth m. u. n. "der Dampf" (Eh I 362b), which is only found in Wangeroogic among Frisian dialects and has a different meaning, "steam" from that of its cognates English broth etc. "the liquid in which anything has been boiled, and which is impregnated with its juice; a decoction" (NED). The verb is a formation analogous to German brodeln, a derivative of OHG broth, brod "broth" (cf. Kluge-Seebold 2002: s.v. brodeln).
- farrottii "verfaulen" - OFris. rotia, F.-A. ferröödi; OE rotian; OS roton. (OHG rozzēn belongs to class III.)
- farsollii "versohlen, besohlen", beside súlle "die Sohle" Eh I 397a - The noun, which is general West Germanic, is a loan, ultimately from late Latin sola, plural to solum "base, foundation" (and in Frisian may have been mediated through Dutch or Low German, which could explain the pre-form *sola, although Hofmann derives the modern Weser Frisian forms from the historical plural, 1961: 306, cf. 309 re *skela "Schale", 312; note also Löfstedt 1932: 26-27, re nutte). In the various West Germanic languages, the verbs are later derivatives from the noun, cf. HG solen 13thC on. Obviously, the Wangeroogic verb was formed when the base-word still had the stem-vowel ${ }^{*}-o$-.
- hoppii "hoffen" - OFris. hopia, F.-A. hööbi; OE hopian.
- kokkii "kochen" OFris. kokia, F.-A. köögi; cf. OHG cochōn.
- lovii "geloben" - OFris. lovia, F.-A. lööwi; OHG lobōn.

[^4]- mollii "brocken" seems to be unparallelled. It is presumably derived from the noun mol, mollii nt. "ganz kleine Krumen" Eh I 381b; cf. also the adjective mólliig "krümelig" Eh I 98.
- monnii "mahnen" - OFris. monia, Saterl. moanje, Helg. meene < mööne. In this verb, the $o$-stem-vowel is specifically Frisian; it was a WGmc. *a, cf. OHG manōn; OS manon.
- ollii "ölen" - OFris. olia, F.-A. ööli, cf. footnote 22.
§4.2.2 In the present, $o$ and $u$ alternate within the paradigm, as can be seen in the following examples:

| inf./ 1sg. | 2sg. | 3sg. | pl. |
| :--- | :--- | :--- | :--- |
| broðii | bruðest | bruðet | broðiit |
| hoppii | huppest | huppet | hoppiit |
| lovii | luvest | luvet | loviit |
| monnii | munnest | munnet | monniit |

The Old Frisian endings were as follows (cf. §2.2):

| inf. | 1sg. | 2 sg. | 3sg. | pl. |
| :--- | :--- | :--- | :--- | :--- |
| $-i a$, | $-i e$ | -ast, | -ath, | -iath. |

The correlation of conditioning factors and reflexes seems conclusive (cf. Löfstedt 1932: 10). ${ }^{22}$ Regardless of the source of the individual verbs that show it, the alternation itself has no counterpart in neighbouring languages, so must be an indigeneous development. ${ }^{23}$
§5.0 It seems not to have been clearly stated that, in open syllables, while OWang. * $o$ of whatever origin yields Wang. $-u$ - before an $*-a$ in the
22. Mollii also shows class I-type present forms, molliist, molliit (Eh I 51a), cf. footnote 9. To judge by Ehrentraut's presentation, Wang. ollii "ölen" (Eh I 80b) belongs to class I. It was a class II verb in Old Frisian (cf. §4.1).
23. No analogous alternation is observable in verbs with PFris. stem-vowel $* e$ with Wangeroogic infinitives in -ii (cf. footnote 9). These maintain their stem-vowel -ithroughout in Wangeroogic, for example: birii "empfangen, heben; gebähren" Eh I 78a (a former strong verb); (bi-)litii "verspäten" Eh I 78a; nirrii "nähren" Eh I 80b; schirii "scheeren" Eh I 55b, (73b), 81b (another originally strong verb); smirii "schmieren" Eh I 74b, 82b; tirii "zehren, auch theeren" Eh I 76a; [him] wirii "eilen, sich beeilen; wehren, vertheidigen" Eh I 77a.
following syllable，it is retained before an $*_{-e}$ or $*_{-i}$ in the following syllable，yielding－o－．${ }^{24}$
§5．1 It is noteworthy that the two PFris．phonemes＊$u$ and＊$o$ did not merely exchange allophones and persist as such，but are continued by three phonemes in Modern Wangeroogic：$u u, u$ and $o$ ．Before－ii，we have the ＇etymological sound＇，－uи－or－o－；but before $-e$（from ${ }^{*}-a$ ），both are represented by $-u$－．Compare the following schema：

OEFris．
＊u＊wunia，＊wunath
＊o＊monia，＊monath

Wang．
ии Wang．wuunii＂wohnen＂
u Wang．wunnet；munnet
o Wang．monnii＂mahnen＂
§5．2 An interesting further detail is that before high vowels（ ${ }^{-}-i$ and ${ }^{*}-e$ ），the allophone of OWang．＊o ends up as $o$ ，a lower vowel than the outcome $u$ of the allophone before the low vowel $*-a .{ }^{25}$ In order to produce this situation， the allophone of PFris．／o／before low vowels must have＇leap－frogged＇the allophone before high vowels．${ }^{26}$

24．A form such as bunnii＂das Licht［Kindersprache］＂Eh II 1 is not to be seen as an exception，belonging as it does to the affective vocabulary．However，＇Seetzen＇s＇$N u ß i$ ＂nose＂，beside Nasie，（ed．Versloot 1995）does represent a problem；but it is not part of Ehrentraut＇s corpus，which has naazii（Eh I 382）．
Forms such as naazii＂Nase＂（Old Frisian nose，R1 nosi）；haavii（in the fixed phrase too haavii＂zur Kirche＂Eh I 392，beside hof＂Kirchhof＂Eh I 372 ＜OFris．hof＂Hof； Kirchhof＂）；baariik＂Ahle＂Eh I 359 and the verb baariik＂bohren＂Eh I 59 （evidently related to borrii＂bohren（mit einer Ahle）＂Eh I 51）show a lengthening of the open o found before－ii（cf．§5．2）when followed by a voiced consonant（cf．Hofmann 1961： 314）．A similar lengthening of $o$ before voiced consonants is also sometimes found in closed syllables：e．g．Gaad＂Gott＂Eh I 3，368；raag＂Roggen＂Eh I 386 （＜OFris． rogga）．
25．I purposely operate in terms of Ehrentraut＇s graphemes 〈uu〉，〈u〉 and «o〉．They are interpreted as $/ \mathrm{u} /$ ，／o／，and $/ \mathrm{o} /$ by Versloot 2001：425b，although $/ \mathrm{u} /$ ，／ $\mathrm{v} /$ ，and $/ \mathrm{o} \sim \mathrm{o} /$ also seem possible，with $/ \mathrm{v} /$ supported by the fact that the reflex of OWang．＊e is spelled＜i〉．Versloot himself speaks in terms of a $u$－vowel for＜u＞，2001： 738.
Whatever the precise vowel qualities，we can be confident that with＜u〉 Ehrentraut intended a closer vowel than «o»．We may note that OWang．＊e of all origins does not present parallel behaviour in open syllables；compare the examples in §2．1 and footnote 23.
26．In this respect，the development is reminiscent of OHG＇primary umlaut＇，where the reflex of WGmc．＊／e／is more open than the umlauted reflex of WGmc．＊／a／（cf． Braune－Reiffenstein 2004：§§14 A2， 28 A1；Marchand 1956）．

This suggests the following process of allophone formation and development in Wangeroogic.

Stage 1: Old East Frisian: the same as Proto-Frisian, except that $\tilde{a} N>o N$.
A) $\quad * / \mathrm{u} /<$ WGmc. $* u$.
B) $\quad * / \mathrm{o} /=[\bigcirc]$ an open sound $<$ (i) WGmc. $* o$; (ii) WGmc. $* a+$ Nasal.

Stage 2: Old Wangeroogic allophone formation.
Ai) In most positions, OEFris. /u/ persists.
Aii) OWesFris. */u/ develops a new allophone [v] before $-a$ by 'replicated $a$-umlaut', which, because developed from $/ \mathrm{u} /$, is a closer vowel than original $/ \mathrm{o} /[\mathrm{o}$ (which itself developed from $* / \mathrm{u} /$ at the (North-)West Germanic stage).
B) OWesFris. $* / 0 /=[0]$ remains.

Stage 3: Modern Wangeroogic. The allophones of $* / \mathrm{u} /$ and $* / \mathrm{o} /$ before $-a$ merge.
$\mathrm{Ai}) / \mathrm{u} /$ remains, devoid of the allophone before $-a$.
$\mathrm{Z}=$ Aii) The allophone [v] by 'replicated $a$-umlaut' is joined by the allophone of PFris. */o/ before $-a$, forming a new phoneme with the quality /v/.
B) OWang. */o/ = [ 0 ], having lost its allophones before $a$ to $/ \mathrm{v} /$, persists.
§5.3 Presumably, the minimal phonetic distinction between the allophones of the two vowels before *-a was not worth maintaining, so they were no longer referrable to their separate sources. In Marchand's happy but vague phrase (1956: 89), 'it was the "attraction" of an allophone of one phoneme into the orbit of another phoneme'. However, to understand the phonemics properly, one would have to take into consideration those instances where *o not in open syllables seems to be reflected by $u$, cf. footnote 16 .
§6.1 The Wangeroogic development contrasts with that in Saterlandic, where the reflex of Old (Ems) East Frisian *o in open syllables does not vary according to the following vowel, and undergoes lengthening to -oo-. Compare Fole "foal" hoopje "to hope", Noze "nose"; beside Wang. fulle and hoppii, naazii (OFris. nose; on the Wangeroogic form, see footnote 24). As noted above, footnote 12 , syllables before the $-j e$ reflex counted as open in

Saterlandic, where a general merger of lengthened -oo- with Proto-Frisian long */o:/ has not taken place, cf. Bloud "blood", Fout "foot".
§6.2 The comparison with Saterlandic raises the question of whether the Wangeroogic mid and low short vowels ever underwent lengthening in open syllables and the possibility that this may help account for the shifts in quality of the reshortened vowels.

Consideration of these matters may be the occasion for a further article, but they must remain open for the moment. ${ }^{27}$

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[^0]:    1. A number of Old Frisian manuscripts are referred to in this article by their standard sigla. East Frisian: Emsigo (E), Fivelgo (F), Riostring (R); West Frisian: Jus Municipale Frisonum (J), Codex Roorda (Ro).
    2. The fundamental divide is between West and East. Both varieties of North Frisian descend from East Frisian.
    3. The First Riostring codex (R1), dated about 1300, is Oldenburg, Niedersächsisches Staatsarchiv 24, 1, Ab. 1. R2, a late 18th century copy of lost manuscript from 1327, is Hannover, Niedersächsische Landesbibliothek, XXII, 1431. Both are edited by BumaEbel 1963. R3 is a lost 15thC Jever manuscript, edited by Holthausen 1936; R4 is Koninklijke Bibliotheek te 's-Gravenhage 135 C 81, edited by Gerbenzon 1982.
[^1]:    4. The monumental researches of Heinrich Georg Ehrentraut are the major source of Wangeroogic. They were published by him in the two volumes of his short-lived journal Friesisches Archiv (1847-54), and from his Nachlaß by Arjen Versloot in 1996. These are referred to as Eh I, II and III, respectively. Material is also to be found in the works of Theodor Siebs. I use Versloot's orthography for Wangeroogic (except I write $-k k$-for his $-c k$-), even in most quotations from the secondary literature (cf. Versloot 1996a: lxxxvi; cf. 2001: 425).
    Wursten Frisian is preserved in the form of two short word-lists, edited by Möllencamp 1968; cf. also the important article by Dietrich Hofmann 1961.
    5. Compare Siebs 1901: 1169; Löfstedt 1932: 13; Hofmann 1961: 305; Versloot 2001: passim.
[^2]:    6. C designates a consonant, $\$$ a syllable boundary.
[^3]:    10．Wursten éríth＂ein Erbs＂and（in－）ärìe＂erndten＂（Möllencamp 1968：96）cannot be taken to lack the change，as the 〈еॅ〉 and «ä〉 spellings represent weakened stem－vowels

[^4]:    21. Eight of them are listed by Ehrentraut Eh I 51-52 (cf. III 456/ 13-17), a ninth, hoppii "hoffen", is given at Eh III 254/6-7 etc. (also Siebs 1901: 1380); the 10th, ollii "ölen", has been cited in §4.1. All but ollii (cf. footnote 22) comprise Ehrentraut's fourth class of Übergangszeitwörter, characterized by an -u-stem-vowel in the preterite system.
[^5]:    27. I should like to thank the editors of Us Wurk, also Kees Dekker, Frank Heidermanns and Anne Popkema for their help on various points and Nils Århammar who read the whole manuscript and suggested numerous improvements.
