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THE SCANDINAVIAN DOTTED RUNES

For citation: Schulte M. The Scandinavian dotted runes. *Scandinavian Philology*, 2019, vol. 17, issue 2, pp. 264–283.

https://doi.org/10.21638/11701/spbu21.2019.205

The present piece deals with the early history of the Scandinavian dotted runes. The medieval rune-row or fubork was an extension of the younger 16-symbol fubark that gradually emerged at the end of the Viking Age. The whole inventory of dotted runes was largely complete in the early 13th century. The focus rests on the Scandinavian runic inscriptions from the late Viking Age and the early Middle Ages, viz. the period prior to AD 1200. Of particular interest are the earliest possible examples of dotted runes from Denmark and Norway, and the particular dotted runes that were in use. Not only are the Danish and Norwegian coins included in this discussion, the paper also reassesses the famous Oddernes stone and its possible reference to Saint Olaf in the younger Oddernes inscription (N 210), which places it rather safely in the second quarter of the 11th century. The paper highlights aspects of absolute and relative chronology, in particular the fact that the earliest examples of Scandinavian dotted runes are possibly as early as AD 970/980. Also, the fact that dotted runes — in contradistinction to the older and younger fubark — never constituted a normative and complete system of runic writing is duly stressed. In this context, the author also warns against overstraining the evidence of dotted versus undotted runes for dating medieval runic inscriptions since the danger of circular reasoning looms large. This is a preliminary study to reassess the possible origin of dotted runes and the technique of diacritic dotting in the British Isles.

Keywords: Dotted runes, Old Danish, Old Swedish, Old Norwegian, Viking Age, runestones, younger runic inscriptions, runic epigraphy, younger fubark, medieval fubork, Roman alphabet, runic coins, renovatio moneta.

INTRODUCTION

One salient feature of Scandinavian runic writing in the late Viking Age and the early Middle Ages is the technique of diacritic dotting¹. Shortly before AD 1000, the dotted runes \dagger **e**, \dagger **g** and \dagger **y** were introduced to increase the number of available runes, and to create a better fit between phonemes and graphemes. This triad of dotted runes was later supplemented with additional characters, such as $1\uparrow\uparrow\uparrow d$, $\exists p$ and $\flat \delta$. An inventory of medieval runes is sketched in the table below.

This technique of graphemic differentiation made persistent headway in later runic writing, and it came into wider use in the Middle Ages. In a late phase of this development, special graphs for the Roman letters ${\bf c}$ and ${\bf z}$ were developed, which resulted in the well-nigh complete runic representation of the letters in the Roman alphabet (see the table above). Even dotted ${\bf n}$ -, ${\bf l}$ - and (very rarely) ${\bf b}/{\bf v}$ -runes (where dotted ${\bf n}$, ${\bf l}$ are transliterated as ${\bf N}$, ${\bf L}$) are in evidence (on the dotted ${\bf m}$ -rune see note 5)². In short, this system does not emerge with medieval runes, but, as has been broadly recognized, in the later part of the preceding period,

¹ Note that the periods of language history in Norway, Denmark and Sweden are at variance. The Viking Age is said to end around AD 1050 in Norwegian language history (see [Schulte, 2018]). The Danish Middle Ages (linguistically speaking: Middle Danish/Old Danish) are generally said to start around 1100 (see [Hjorth, 2016, ch. 2]). Lis Jacobsen in DR operated with a Pre-Medieval Period 3, c. 1050–1150 which bridges the gap between the Viking Age and the Period 4, viz. the Middle Ages c. 1100–1350.

² Källström offers a detailed runological analysis of dotted I and **n** (transliterated as **L**, **N**) in some medieval Danish and Swedish runic inscriptions; in particular he notes the Swedish use of **N** for (long) dental /n/, e. g. **fiNviþir** *Finnvið(i)r* at the baptismal font from Blädinge church (Sm 4; see [Källström, 2015, p. 129–130]), and the particular use of **L** in the consonantal cluster *-ld-* in **skiaLdolfor** *Skialdolfr* at Tibro church, Västergötland (Vg 219) and **L** as a representation for long *l*, e. g. **aLum** *allum* (G 63; see [Källström, 2015, p. 130–131]). Regarding the distribution of the dotted and undotted **n**-runes on the baptismal font from Åker in Bornholm (DR 373), Axel Kock once suggested that the dotted variant designated supradental (retroflex) [η]; see [Kock, 1902, p. 150–157]; also [Källström, 2015, p. 109, 141]. This use is obviously restricted to eastern Scandinavia, i. e. Denmark and Sweden.

viz. the Viking Age. Granted, the Viking Age rune-carvers normally restricted their use of dotted runes to \dagger **e**, \dagger **g** and \dagger **y**. Nevertheless, there are also some rather early examples of single-dotted \dagger **d** and double-dotted \dagger from Sweden and Denmark, i. e. Uppland, Öland and Bornholm, and \dagger **p** also occurs rather early on a runestone from Västergötland (see section 2). All these examples, including the rather safely dated Danish and Swedish coins, pertain to the late Viking Age.

Whether the original impetus behind the dotted runes should be sought in a multi-script and multi-lingual context, as characterized by Celtic (Gaelic) and Christian book culture or *Latinitas* more broadly, or if it is an indigenous innovation within the runic system of the late Viking Age, is still debated. In my view, the first option seems far more likely (for a general assessment, see [Schulte, 2015]). To re-assess this matter, the present paper scrutinizes the early history of dotted runes in Denmark, Sweden and Norway. In a further contribution [Schulte, 2020], I will re-address the use of dotted runes in the Norse colonies in the British Isles and the possible British-Scandinavian connections³.

EARLIEST EXAMPLES OF SCANDINAVIAN DOTTED RUNES: DENMARK AND SWEDEN

Within Scandinavia, dotting most likely began in Denmark, where Christianity seems to have become the official religion already in the 960s. The sporadic use of dotted I, I and I' (I I' I') is attested by a number of late tenth- and early eleventh-century stone monuments from Skåne and eastern and southern Jutland, the Hedeby stones 1 and 3 and the Aarhus stone 3 in particular. Thus, the stone of Eric (DR 1), the Skarthi stone (DR 3) and the Mask stone (DR 66), which is famous for bearing a depiction of a facial mask, attest that the initial phase of Scandinavian dotting was probably as early as AD 970–1020⁴.

³ I became aware of Michael Barnes' recent monograph on *The Runic Inscriptions* of the Isle of Man [Barnes 2019], when I had finished my papers on the dotted runes (including [Schulte 2020 forthc.]). As I see it, there is a large consensus, not least in a chronological perspective, when it comes to the significance of the Manx crosses; see [Barnes 2019, especially pp. 57-63, 75-76] and [Schulte 2020].

⁴ This dating is in accordance with the Danish runedatabase DK. In this paper Danish runic inscriptions appear as they are rendered in the Danish runedatabase and Samnordisk runtextdatabas Rundata 2.0 (see 8.1), but with my own modifications.

Stone of Eric (Haithabu stone 1 = DR 1. Dating: AD 970–1020)

A: x þurlfr x risþi x stin x þonsi x himþigi x suins x eftiR x erik x filaga x sin x ias x uarþ

B: tauþr x þo x trekiaR satu x um x haiþa x bu x ian : han : uas : sturi : matr : tregR x harþa : kuþr x

Þörulfr resþi sten þænsi, hemþægi Svens, æftir Erik, felaga sinn, æs warð dóðr, þa drængiar satu um Heþaby; æn hann was styrimannr, drængr harða göðr

"Thorulf raised this stone, Sven's retainer, in memory of Eric, his partner, who died when valiant men besieged Hedeby; and he was a captain, a very good valiant man."

Skarthi stone (Haithabu stone 3 = DR 3. Dating: AD 970–1020)

A: suin : kunukR : sati : stin : uftiR : skarþa sin : himþiga : ias : uas : farin : uestr : ion : nu :

B: uarþ: tauþr: at: hiþa:bu

Svenn konungr satti stēn øptir Skarða, sinn hēmþega, es vas farinn vestr, en nū [B] varð dauðr at Hēðaby.

[A] "King Sven placed the stone in memory of Skarði, his retainer, who travelled to the west, but who then [B] died at Hedeby."

Mask stone (Aarhus 3 = DR 66. Dating: AD 970–1020)

A: : kunulfR : auk : augutr : auk : aslakR : auk : rulfR : risþu

B:: stin: pansi: eftiR: ful: fela[k]a: sin: |: iaR: uarp [:] ...y--: tupr:

C: þą:kunukaR: | barþusk:

GunnulfR ok Øygautr ok ĀslakR ok RōlfR rēsþu stēn þannsi æftiR Fūl, fēlaga sinn, eR varð ... dóðr, þā kunungaR barðusk.

"Gunnulf and Øygaut/Auðgaut and Áslak and Rolf (ON *Hrólfr*) raised this stone in memory of Fúll, their partner, who died when the kings fought."

Thus, we see that the Mask stone (DR 66) displays dotted † e twice (eftiR, fela[k]a), dotted | g once (augutR) and even dotted | y once (however in an unclear lexical sequence). The two Hedeby stones feature only dotted † e and | g; the stone of Eric (DR 1) has dotted † e in four cases (viz. eftiR, erik, trekiaR, tregR) and dotted | g in one (himbigi), while the Skarthi stone has dotted † e and | g in one single form each (uestr, himbiga).

The chronological relationship of the Hedeby, Århus and Hällestad stones is important for our understanding of the dotted runes, includ-

ing the so-called dotted **m**-rune, which seems to be of less runological and linguistic importance otherwise⁵. More specifically, as Lisbeth Imer [Imer, 2015, p. 7–8] notes, the dates of the Hedeby and Århus stones form an important basis for the dating of the runestones with the dotted runes \dagger **e**, \uparrow **y/ø**, and \uparrow **g**, which are clear innovations in Scandinavian runic writing. Other dotted runes, such as the different variants of dotted long-branch **t**, $\uparrow\uparrow\uparrow\uparrow$, and dotted **b**, \not B, do not generally come into use until the end of the Viking Age or the earliest part of the Middle Ages. The runic coins of Sven Estridsen are among the earliest evidenced examples and will be addressed below. When it comes to \not B **p**, however, there is a notable exception of an earlier date. As mentioned earlier, we spot the first occurrence of the dotted **b**-rune \not B on a runestone in Västergötland (Vg 20)⁶.

Västanåker stone in Gösslunda Municipality (Vg 20)

- ... risti x stin x iftiR x kurmar x sun x sin + iaR x uaR + trbin x a x iklanti x
- ... rēsþi stēn eptir Guðmar(?) son sinn, æR war drepinn á Englandi.
- "... raised the stone in memory of his son Gudmarr(?), who was killed in England." $\,$

Västanåker in Gösslunda Municipality (Vg 20) has the word-shape **trpin** for *drepinn*; this sequence displays dotted \mathbb{B} for **p** and has the root vowel /e/ omitted after the liquid /r/ (see SRI 5: 37). There are several indications that the stone belongs to the first half or middle of the eleventh century. Spurkland [Spurkland, 1994, p. 270] argues that the event mentioned on the runestone should most likely be dated to AD 1015–1020 on historical grounds, "since it probably refers to the campaign of King Knut the Great of Denmark in England". This assessment ties in nicely with a runological and linguistic dating which places it prior to AD 1050. A clear pointer is the correct etymological distinction between r and R, i. e. which have not yet merged (viz. **iftiR**, **iaR**, **uaR** versus **risti**, **kurmar**, **trpin**)⁷.

⁵ The 'dotted m-rune' is used on the Århus stones 1 and 5, the Hällestad stones 1 and 3, as well as on the Sandby 3 stone from Sjælland, which probably dates a little later than the others. For further details, see [Fridell, 2014].

⁶ The rendering of Swedish runic inscriptions represents Samnordisk runtextdatabas Rundata 2.0 (see bibliography), with my modifications.

My Swedish colleague Magnus Källström comments on the dating of VG 20 in an email dated 29-10-2018: "I would think that it [viz. VG 20] is earlier [than AD

Both the dotted runes $\uparrow \uparrow d$ and βp , as well as $\flat \delta$, are attested in the coinage of the Danish king Sven Estridson in Lund AD 1065-10758. His runic coins display $\dagger \neq 0$, $\uparrow \uparrow \uparrow d$, βp , $\beta y/w$, plus dotted \flat for \eth . The Danish runic coins from the period AD 1065-1074 were struck in the hundreds of thousands, possibly even millions, as Jensen [Jensen, 2006, p. 167] notes, "most of them being melted down again at the next renovatio moneta." (cf. [Ingvardson, 2016], and the response by Moesgaard [Moesgaard, 2017]). Moreover, coins are by nature a portable mass material, which is perfect for the dissemination of writing techniques. Dotted t and b occur on the coins as a supplement to dotted i, k and u. These coins were struck mainly in Lund, probably with close connections to England. Interestingly almost half of the Danish runic coins, i.e. 93 of a total of 200, were from Lund (see the reproduction of many of these coins in Hauberg [Hauberg, 1900, Fig. 8-9], see also [Moltke, 1950]). Thus, despite the fact that most of the coins were short-lived, the role they played in the dissemination of writing techniques such as dotting cannot be overrated.

Danish and Swedish rune-carvers also dotted original $\[\]$ **u**, which produced a grapheme which could adequately represent the umlaut-vowel /y/, but this rune shape was far less frequent in Norway since /y/ was usually denoted by $\[\]$ in the medieval Norwegian runic inscriptions; cf. the Dynna stone No. 68, the Oddernes stone No. 210 and Granavollen in Hadeland No. 63 (cf. [Schulte, 2018, p. 140; Haugen, 2018, p. 210–211]). The two earliest runic inscriptions with dotted **u**, $\[\]$, are D anish and belong to the late Viking Age (one of them being the Mask stone DR 66 which was presented in section 2 above). The other inscription in

^{1050;} M.S.] despite there being no exact pointers. The total absence of ornament suggests that it is relatively early. The same applies to the ${\bf s}$ -rune with the chair-form and the correct use of the ${\bf R}$ -rune. The spelling ${\bf a}$ for \acute{a} points to a younger phase than the stones which use o (i. e. $\~a$) for this preposition. My guess is the first half of the $11^{\rm th}$ century, but I will not specify this more precisely." ["Jag skulle nog kunna tänka mig att den är tidigare även om det är svårt att säga något mera exakt. Den totala frånvaron av ornamentik talar för att den är förhållandevis tidig. I samma riktning talar också att ${\bf s}$ -runan har stolsform samt att ${\bf R}$ -runan ännu används korrekt. Skrivningen ${\bf a}$ för \acute{a} pekar på ett yngre skikt än de stenar som använder ${\bf o}$ (dvs. $\~a$) för denna preposition. Jag skulle alltså snarast gissa på första hälften av 1000-talet, men vill nog inte specificera det mer."] Källström affirms from a runological standpoint: "Användningen av ${\bf a}$ -runan på Vg 20 talar för att vi ska röra oss mot mitten av 1000-talet."

⁸ See DR, col. 949–950, cf. also [Stoklund, 2006, p. 371–373; Ingvardson, 2016]; Hauberg [Hauberg, 1900, fig. 8–11] lists in total 77 coins.

question is the Sjælle stone DR 62, again a mask stone like DR 66, which also belongs to the period AD 970–1020 (cf. [Imer, 2016, p. 78, 210]). Other runestones containing \widehat{P} , such as the Sandby stone 3 (DR 229), belong to a later period (dating: AD 1025–1100).

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Sjælle stone (DR 62. Dating: AD 970–1020)
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: fraystain : sati : stain : þ[e]nsi : uft : | [g]yrþ : lags:m[a]n : sin : bruþur : sig|ualta :

... | .. a : t[u]e[g]ia : [a] : | [-]u[-]s : eþi :

Frøystæinn satti stæin þennsi øft Gyrð, lagsmann sinn, bröður Sīgvalda, tvæggia/drængia(?) ā ...[h]ēði/ēði.

"Freysteinn placed this stone in memory of Gyrðr, his comrade, Sigvaldi's brother, ...

Tveggi's (or possibly: of the drengs) on ... the heath(?)."

The Sjælle stone deploys dotted \mathbf{u} ($\hat{\mathbf{h}}$) in the personal names **fraystain** *Frøystæinn* (nom.) and **[g]yrb** *Gyrð* (acc.). It also uses dotted \mathbf{k} ($\hat{\mathbf{h}}$) in forms such as **lags:m[a]n** *lagsmann* (acc.) and **sigualta** *Sīgvalda* (obl. case of the weak name form *Sīgvaldi*), and it deploys dotted \mathbf{i} ($\hat{\mathbf{h}}$) in **epi** which is possibly to be equated with $h\bar{e}pi$, cf. ON *heiði*, acc. and dat. sg. to the *ijō*-stem *heiðr* f. 'heath'. The use of the three dotted runes $\hat{\mathbf{h}}$ $\hat{\mathbf{h}}$ is roughly comparable to the aforementioned Mask stone (Århus 3 = DR 66), which also deploys all three dotted runes (dotted \mathbf{u} however in an unintelligible context). It is noteworthy that both Sjælle and Århus 3 have been carved, in all likelihood, at some point between the last quarter of the tenth century and the beginning of the eleventh century.

To sum up what we have covered thus far, we can safely state that dotting has started in Scandinavian runic writing in the last quarter of the tenth century at the latest. This is corroborated by the dating of Danish runestones with dotted runes (around 30 in all) to the period AD 970/980 until c. AD 1020. As far back as the late nineteenth century, Ludvig F.A. Wimmer [Wimmer, 1892, p. 47–48] and, more recently, Erik Moltke (in [Christensen, Moltke, 1971], stressed that Hedeby 1 and 3 (DR 1 and DR 3) belonged to the end of the tenth century rather than the middle of the eleventh century, as had been earlier suggested by Lis Jacobsen in the edition of *Danmarks Runeindskrifter* (1941–1942, under DR 1 and 3). The runestones in this period are first and foremost erected in the eastern part of Jutland and southern parts of Skåne. Hence dot-

ting functions as a basic criterion for dating runestones of the late Viking Age and medieval period (cf. also [Spurkland, 1995]).

In her chronology of Danish runestones, Stoklund [Stoklund, 1991, p. 293] uses dotted runes in dating the Hedeby stones (DR 1 and DR 3) which she compares to the Scanian runestones with dotted runes, viz. the Hällestad stones and Sjörup. The inscriptions on the Scanian runestones possibly refer to the battle on the

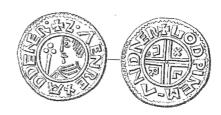


Fig. 1. Coin of Sven Forkbeard, minted in 995, made by the English moneyer Godwine. It reads: ZVEN REX AD DENER "Sven, king of the Danes", reverse: GOD-WINE M-AN D-NER "Godwine, moneyer of the Danes". (Picture credit: [Hauberg, 1900, fig. 1])

Fyris plain in the 980s, which would provide additional support for dating them to the late tenth century. A matter of dispute is the reference to suin kunukR Sven konungr on the Hedeby stones DR 1 and 3 as several historical kings bear this name. In view of the other evidence for a dating prior to AD 1000, however, the name should probably be connected to Sven Forkbeard (ON Tjúguskegg) rather than Sven Estridsen, who died in AD 1076 (for discussion see [Stoklund, 2001, p. 112]). Mainstream research supports this view (e. g., [Nielsen, 1970, p. 39–41; Christensen, Moltke, 1971]). In 1013, one year before his death, Sven Forkbeard became the first Danish king of England, paving the way for Knut the Great, king of Denmark and England. A coin minted for Sven Forkbeard by the moneyer Godwine AD 995 is one of the earliest known coins with a Latin inscription found in Scandinavia (see Fig. 1). The coin is based on Anglo-Saxon models, as is the case with similar coins in Norway (see [Bolton 2009, p. 162; Hybel, Poulsen, 2007, p. 86]). The same moneyer, Godwine, minted Norwegian coins for King Olav Tryggvason c. 995-997, again based on English prototypes (see [Hauberg, 1900, p. 44, 93]). A Norwegian coin of this early production period is reproduced by Haugen [Haugen, 2018, p. 200].

The reference to Sven Forkbeard would place the Hedeby inscriptions DR 1 and DR 3 at the end of the first millennium. It is probably no coincidence that some of the earliest examples of dotting in Scandinavia are found on runestones in the trading centre of Hedeby, or Haiðaby, as the town was called in Old Danish. Hedeby, in Jutland, was a central harbor

and a mercantile centre connected with the whole Scandinavian world and beyond. Accessible from both the east and the west, it held a key position in connecting the trading systems of the North Sea to the British Isles in the West and to the Balticum in the East. In the ninth century, Hedeby became the leading proto-town of the Danish kingdom until its final destruction in AD 1066. But of equal importance is the fact that Hedeby was the site of one of Denmark's earliest episcopal seats founded in the midtenth century, and thus, of a flourishing clerical milieu⁹.

EARLY EXAMPLES OF DOTTED RUNES IN NORWAY

Dotted runes occur somewhat later in Norway than in Denmark. In fact, this may be due to the small number of available Norwegian runic inscriptions from the late tenth and early eleventh century. One of the earliest examples (and a rather clear one) of dotted † **e** appears on the Oddernes runestone in Vest-Agder in southern Norway. This is the younger Oddernes inscription (No. 210), which has been roughly dated to the first half of the eleventh century; see (3.a). In his examination of the inscription, Marstrander pointed out that the pronoun **besa** surely (in his wording, "helt sikkert")¹⁰ was written with a dotted **i**-rune, viz. Þtht, and James Knirk [Knirk, 1993, p. 180] later confirmed his reading: "The reading **besa** is almost certain" ["Lesningen **besa** er nesten sikker"] (see also [Schulte, 2018, p. 161]).

x ayintr x karþi x kirkiu x þesa x kosunr x olafs x hins x hala x aoþali x sinu x

Øyvindr gerði kirkju þessa, goðsonr Ólafs hins hala, á óðali sínu.

"Øyvind built this church — the godson of Saint Olaf — on his allodium (inherited property)."

The inscription of Oddernes II is usually dated to the second quarter of the eleventh century (c. 1031–1050), or, more precisely, 'to 1035 or shortly thereafter' ("tiden fra 1035 og litt fremover"; see [NIyR, III,

⁹ On Haiðaby/Hedeby see, e. g., the philological and runological contributions in the proceedings of [Düwel, Marold, Zimmermann, 2001], cf. also [Radtke, 1999; Hilberg, 2008] and in particular [Ingvardson, Moesgaard, 2015] on the archaeological and numismatic evidence.

¹⁰ Unpublished note from 1943 in the Runic Archives, University of Oslo, Museum of Antiquities.

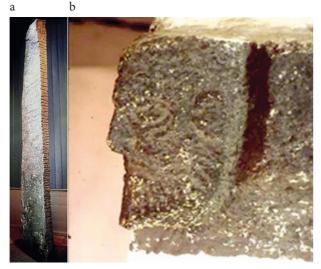


Fig. 2a. The Oddernes runestone with the older inscription I (No. 209) on the broad front side and the younger inscription II (No. 210) on the narrow side. Fig. 2b. A man's head, presumably the head of Saint Olaf. (Picture credit: Odd Drange and Olaf Larsen, Oddernes Church Office, Kristiansand)

p. 80]). This dating hinges on the reference to Saint Olaf (**olafs x hins x hala**, *Ólafs hins* **hala**). The sequence **hala** is interpreted as the weak form *helga* (masc. sg. obl. case) belonging to the adjective ON *heilagr* 'holy' (for discussion see [Schulte, 2018, p. 160]). The omission of the velar /g/ after /l/ (phonetically presumably a fricative [γ], or [h] in casual speech at least) is certainly in need of comment. It is noteworthy that the spelling **hela** for ON *helga* occurs twice in the inscription B from Tonstad church (No. 216), which is roughly dated to AD 1200. Magnus Olsen explicitly states: "begge skrivemåter, ***hela** og **æla** er med hensyn til det manglende 'g' å sammenstille med **hala** på Oddernes-stenen" (see [NIyR, p. 131]). Also, the spelling **hlhi** (rendering the personal name *Helgi*) is met for instance on the Rike shield from Valle in the Setesdal (ca. 1200; No. 189), while **hælhe** (= *Helgi*) occurs in one

¹¹ On the use of the **h**-rune for fricative *g*, see e. g. [Källström, 2013, p. 113–116]. Also note competing spellings such as **folhit** M 25 versus **folhket** M 26 (rendering the past pariciple ON *folgit* "hidden") in the Maeshowe material; cf. [Barnes, 1989, p. 25–35]; also [Barnes, 1994, p. 54–55].

of the Maeshowe inscriptions (M 10; see [Barnes, 1994, p. 102]). The reference to Saint Olaf in the Oddernes II inscription implies that the inscription is younger than AD 1031/1032 when Olaf Haraldsson was canonized as a saint. This reading receives additional support from the presence of King Olaf's head on the northern wall of the church (see Fig. 2b).

Where the arc of the Oddernes choir meets the column on the northern wall, a king's head in early Roman style appears cut out in the granite cornice. This head has been identified as King Olaf's head. On the combined grounds of the runic reference to King Olaf and the depiction of his head, the oldest part of the Oddernes Church, the nave and the choir, has been dated to around AD 1040. In which case, the dating of the inscription to around AD 1040 does indeed seem plausible. It is noteworthy that there are further attestations of dotted on the Norwegian runestones from the late Viking Age, e. g. Alstad II (No. 62) and Nørstebø (No. 29). Dotted also occurs in the Hafstad cliff inscription (No. 182; presumably from the 13th or early 14th century; see [Havstad 2013, p. 410]), and both dotted and hoccur in the runic graffitis of the so-called Skutestein at Storhedder in Setesdal/Bykleheia (particularly No. 192, about AD 1150), to mention only these two medieval runic inscriptions.

In an analysis of the Trondheim material (from the *bygrunnen i Trondheim*), Hagland spots dotted **i** in four inscriptions which date to the period from the end of the tenth to the middle of the eleventh century (see [Hagland, 1994, p. 255–257]). A case in point is the weak preterite **kerþi** (*gerði*), written as [IRÞ]. In Norway I thus seems to have been introduced at some point during the first half of the eleventh century. To quote Hagland at length:

The sparse material ... thus provides evidence that the rune-row was extended by means of dotted i. We may say that this strengthens the observation regarding the chronological setting of the i-rune, namely that the dotting of i may have increased considerably before the middle of the eleventh century in Norwegian runic writing. ["Det vesle materialet [...] har altså belegg på at runerekkja på 16 er utvida med punktert i. Vi kan vel seia at dette synest styrkja den merksemda om i-runa som har eksistert i kronologisk samanheng, og at punktering i alle fall av i kan ha teke til innan midten av 1000-talet i norsk runeskrift." Trans. mine]

¹² See the brochure on Oddernes Church, edited by the Church Office in 2018.

Thus, as Hagland and others have noticed, the overall picture in Norway is one of cumulative development over time. That is, the introduction of dotted runes to Scandinavian runic writing appears to have progressed by successive stages (cf. [Olsen in NIyR, V, p. 243–244]). In Denmark, as mentioned, the dotted runes \dagger \dagger were used from the end of the tenth century on. Of these, the dotted **i**-rune (\dagger) probably came to be used first in Norway, followed by dotted **k** and **b**, whereas dotted **t** does not appear before the end of the twelfth century.

In *Norges Indskrifter med de yngre Runer*, the first rather precisely dated attestations of dotted **i** (†) are five coin inscriptions, which belong to the period AD 1065–1080 (see [NIyR, V, p. 598–602, also 243–244])¹³. For instance, the coin inscription No. 599 sports four dotted **i**-runes altogether, whereas other dotted runes are absent. In particular, undotted ^Y and ^B are used for voiced /g/ and unvoiced /p/ in the word form **benek** *penning* (cf. G *Pfennig*):

Coin inscription No. 599 (Dating 1065–1080)

http://abhht:ph
askel.labenek:pen

Askell á penni(n)g penn(a).

Askell á penni(n)g þenn(a).
"Áskell owns this coin."

As regards dotted \mathbf{k} , the situation is markedly different. In Denmark, as we have seen, dotted \mathbf{k} for voiced velar /g/ most likely occurs at the end of the tenth century (see the discussion on DR 1, DR 3 and DR 66), while this use is attested considerably later in Norway, viz. in the second half of the twelfth century. Furthermore, dotted \mathbf{u} (\mathbf{h}), as a sign for umlauted /y/, occurs in two Danish inscriptions from around the turn of the millennium (see section 2 above).

In Norway, the runestick A 347 from Tønsberg has f in **sægs**, which has been interpreted as the numeral ON *sex*: **+ sægs:(okæyrir**, semantically most probably "six (marks) and (one) øre". In this case dating seems slightly problematic. A C-14 dating places the runestick in an early time frame, viz. AD 870-960, whereas the archeological dating would classify the inscription as being "medieval" and belonging to the 1200s or

 $^{^{\}rm 13}$ The Norwegian runic coins with the sigla No. 598–602 are listed in [NIyR, V, p. 213–219].

1300s¹⁴. Clear examples, according to Magnus Olsen, are No. 148 Atrå I and No. 564 Hurum VI, both having been dated to around AD 1180 [NIyR, V, p. 244–245]¹⁵. These two inscriptions feature the following spellings:

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No. 148: uigþi (vígði "consecrated"), fylgþi (fylgði "followed")
No. 564: ællingr, ærlinkr (Erlingr pers.name), hokoa (hǫggva "[to] hew")
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Three well-known inscriptions from the Bryggen wharf in Bergen further confirm that dotted **k** features in the layers from the end of the twelfth century, e. g. No. 648, B 149, and probably B 448¹⁶. No. 648 and B 149 are lengthy strategic letters whereas B 149 is an informal SMS-like message (for discussion, see [Schulte, 2012, p. 174–177]):

Bryggen runestick: personal note of request (B 149)

gya : sæhir : atþu : kakhæim Gyða segir at þú: gakk heim! "Gyða says that you: go home!"

It is noteworthy that B 149 represents /g/ once with \lceil , and once with \lceil , but it may be the case that the original dotting has disappeared due to the malleability of the wooden structure in which it is engraved. B 149 also uses dotted \mathbf{u} in the personal name \mathbf{gya} $Gy\delta a$. On the whole, a significant number of inscriptions from around AD 1170 (stratigraphically dated), such as No. 616 and No. 668, display dotted \mathbf{k} , whereas dotted \mathbf{b} (\rceil) and \mathbf{t} (\rceil), here sinistrograde, occur slightly later in this material. Compare e. g. **kapud** caput, but also **kær** for gar, both on No. 607 which is dated to the subsequent layer AD 1170–1185.

It should not pass unnoticed that the dotted runes † and | occur in the Maeshowe inscriptions from Orkney, even if other dotted runes are entirely absent in this material. Due to their informal nature, the Maeshowe graffiti are likely to be closer to colloquial Old Norse than most twelfth- and thirteenth-century sources. Several rune-carvers, boasting

¹⁴ On the two competing datings of A 347, one archeological and the other radiological, see the comments in *Nytt om Runer*, 15, 2000, p. 19.

¹⁵ See [Olsen in NIyR, IV, p. 69–70; NIyR, V, p. 243–245].

¹⁶ B+inscription number = a still unpublished inscription from Bryggen in Bergen. On the published corpus from Bryggen see NIyR, VI.1 (Oslo, 1980–1990). (An unprinted manuscript for NIyR VII by Jan Ragnar Hagland covering the finds from medieval Trondheim is accessible online (see bibliography).)

about their rýnni, or runic skills, use bind-runes, dotted runes and even cryptic runes to demonstrate their versatility in runic writing. As Judith Jesch [Jesch, 2005, p. 15] notes, such showing-off, combined with the use of cryptic characters, hints to a social climate in which education and literacy may have been prevalent, hence the demonstration of runic versatility¹⁷.

In his presentation of the Maeshowe inscriptions, Barnes [Barnes, 1994, p. 39] follows the established chronology and uses dotted runes as a diagnostic feature for dating, viz. a *terminus ante quem* of around AD 1180/1200:

Indicative of a date well before 1200 are, for example, the absence of dotted runes other than $\frac{1}{2}$ and $\frac{1}{2}$ (cf. Vinje I, NIyR II, 264-8, 292-310, probably from 1197 or thereabouts, which has $\frac{1}{2}$ — together with **ss** for /s:/ and **rr** for /r:/ [...]

It may be objected that the absence of particular dotted runes is a rather insecure criterion for dating runic inscriptions as many carvers make use of dotted runes in an inconsistent or idiosyncratic manner or do not use diacritic dots at all. The inscriptions from Storhedder (Skutesteinen) in southern Norway (No. 190–No. 207), for instance, make ample, presumably consistent, use of dotted \mathbf{i} (\mathbf{f}) and dotted \mathbf{u} (\mathbf{f}), whereas other diacritic dots are entirely absent; see particularly inscription No. 192 which deploys \mathbf{f} and \mathbf{f} in \mathbf{f} \mathbf{f} \mathbf{f} (personal pronoun), Y+ \mathbf{f} \mathbf{f} may (ON \mathbf{mey} f. 'girl, maiden'), \mathbf{f} \mathbf{f} \mathbf{g} (once as a relative particle, and once as a copula), while voiced velar /g/ and voiced dental /d/ are denoted by undotted \mathbf{k} in No. 194 (e. g., Y+ \mathbf{f}) \mathbf{f} \mathbf{kuni} (ON \mathbf{Gunni} , personal name) and undotted \mathbf{t} in No. 192 (e. g., \mathbf{f}) \mathbf{f} 1 \mathbf{t} 1 \mathbf{uilta} (ON \mathbf{vilda} 'would like to') \mathbf{f} 8. The Storhedder inscriptions are dated to the twelfth century, possibly around 1150 AD or even before (see [NIyR, III, p. 53]).

All in all, the array of relevant linguistic and runological evidence found in the Maeshowe material, means that it may be rather safely dated to AD 1125–1175 which is rather close to the aforementioned Storhedder inscriptions (cf. [NIyR, III, p. 61]). As said, these graffiti feature dotted † and ř, whereas no instances of dotted **t** (1) and dotted **b** (B), such as characterize Norwegian runic writing post c. AD 1200, are found (for details, see [Barnes, 1994, p. 39, 48–49]). As Barnes [Barnes,

¹⁷ Cf. [Jesch, 2005, p. 15]; also [Barnes, 2012, p. 119-120, 149].

¹⁸ See [Liestøl, Hagen, 1947], also [NIyR, III, p. 44-67].

1994, p. 39] notes, dotted **t** and **b** are attested in Norwegian runic inscriptions shortly before AD 1200. Magnus Olsen held that dotted **b** was introduced as early as AD 1180 (No. 148, Atrå I), while dotted **t** came to be used somewhat later in No. 170 Vinje 1 (dated to 1197). In any case, the four dotted runes † ** 1 B appear to be well-established in Norwegian runic writing around 1200 AD.

The conclusion of our argument does not come as a surprise. Evidence suggests that dotting in Scandinavian epigraphical traditions progressed in successive stages, affecting first † and |, which occur on Danish runestones now generally placed in the 980s. This confirms what Haugen [Haugen, 1976, p. 86] labelled "the step by step development of dotting". Dotted |, likewise, features on two Danish runestones from the late Viking Age, viz. the Sjælle stone and the Mask stone (on which see above). Under this focus, it will be a further task to explore the connection between Scandinavia and the British Isles (see [Schulte, 2020]). For one of the most important aspects of the British Isles in all this is that they were a site of multilingualism where the full array of languages and scripts, not least Ogam, Roman and the Old English and Old Norse fubark, were in contact with each other.

CORPUS EDITIONS AND FURTHER ABBREVIATIONS

- B+number of inscription = pre-publication of a Bryggen inscription. Many of these finds are presented in transliterated form in Seim [Seim, 1982] and Spurkland [Spurkland, 1991]; see also [Liestøl, 1963] and NIyR VI, containing the Bryggen inscriptions in Latin and businessletters plus owner tags.
- DK = *Danske runeindskrifter*. Database. København Universitet, Nationalmuseet. Available at: http://runer.ku.dk/AdvSearch.aspx (accessed: 16.05.2019).
- DR+number of inscription = Danish runic inscription published in [Jacobsen, Moltke, 1941–1942].
- G+number of inscription = *Gotlands runinskrifter, I-II. Sveriges runinskrifter XI-XII.* Eds S. B. F. Jansson, E. Wessén, E. Svärdström. Stockholm: Almqvist & Wiksell, 1962–1978.
- M + number of inscription = Runic inscription of Maeshowe, Orkney, published in Barnes M. 1994.
- N + number of inscription = Norwegian runic inscription published in NIyR.
- NIyR = *Norges innskrifter med de yngre runer*. Eds M. Olsen et al. 1941 to date [in progress].
- SAM = Samnordisk runtextdatabas. Uppsala: Institutionen för nordiska språk, Uppsala universitet. Available at: https://www.nordiska.uu.se/forskn/samnord.htm (accessed: 16.05.2019).

- Sm + number of inscription = *Smålands runinskrifter*. *Sveriges runinskrifter IV*. Ed. by R. Kinander. Stockholm: Almqvist & Wiksell, 1935–1961.
- SRI = Sveriges runinskrifter, utgivna av Kungl. Vitterhets-, Historie och Antikvitetsakademien. Stockholm. Available at: https://www.raa.se/kulturarv/runor-och-runstenar/digitala-sveriges-runinskrifter/digitala-sveriges-runinskrifter-publicerade-volymer (accessed: 16.05.2019).
- Vg+number of inscription = Västergötlands runinskrifter. Sveriges runinskrifter V. Ed. by H. Jungner, E. Svärdström. Stockholm: Almqvist, Wiksell, 1940–1970.

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СКАНДИНАВСКИЕ ПУНКТИРОВАННЫЕ РУНЫ

Для цитирования: *Schulte M*. The Scandinavian dotted runes // Скандинавская филология. 2019. Т. 17. Вып. 2. С. 264–283. https://doi.org/10.21638/11701/spbu21.2019.205

Статья посвящена ранней истории скандинавских пунктированных рун. Позднесредневековый рунический ряд, так называемый fubork, возник в результате расширения младшего шестнадцатизначного fubark'a, сложившегося постепенно к концу эпохи викингов. Полный набор пунктированных рун в основном сформировался к началу XIII в. Основное внимание в статье уделяется скандинавским руническим надписям конца эпохи викингов и раннего Средневековья, т.е. периоду до 1200 г. Особый интерес представляют древнейшие образцы пунктированных рун из Дании и Норвегии, а также примеры нетипичных рун этого типа. Наряду с руническими надписями на датских и норвежских монетах, в статье обсуждается надпись на знаменитом оддернесском камне и ее возможная связь с младшей оддернесской надписью № 210, в которой упоминается св. Олаф, что позволяет с уверенностью датировать ее второй четвертью XI в. В статье также обсуждаются проблемы, связанные с абсолютной и относительной хронологией пунктированных рун, в частности с датировкой древнейших надписей, относящихся ко времени не позднее 970-980 гг. Отмечается, кроме того, что в отличие от старшего и младшего fubark'а пунктированные руны никогда не являлись сложившейся и общепринятой системой рунического письма. В связи с этим предлагается — во избежание опасности возникновения порочного круга — с осторожностью относиться к противопоставлению рун этого типа непунктированным рунам для датировки средневековых рунических надписей. В статье предлагаются предварительные выводы относительно происхождения и техники пунктированных рун на Британских островах (подробнее: [Schulte 2020 в печати]; см. также: [Barnes 2019]).

Ключевые слова: пунктированные руны, древнедатский язык, древнешведский язык, древненорвежский язык, эпоха викингов, рунические камни, младшие рунические надписи, руническая эпиграфика, младший fuþork, средневековый fuþork, рунические надписи на монетах.

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> Received: February 2, 2019 Accepted: September 16, 2019