## Mainstaffs first?

## 1. Introduction

In an article on planning in runic inscriptions (Meijer 1992, 37-66) I wrote a short section about the possibility that in certain cases the mainstaffs of an inscription were all made first, after which the branches were carved. I should add that in the present article I will show there are indications that runographers may have made all the mainstaffs of each word first, upon which followed the addition of the branches in the word concerned, but there are also inscriptions which suggest that the mainstaffs-first method meant carving the mainstaffs of runes belonging to more than one word (see e.g. Urnes xviil, N 335 in § 2). Since writing this article I have paid more attention to this possible procedure. In answer to my question to give me his opinion about the mainstaffs-first idea, Erik Sandquist, a "modern" Danish runographer, let me know that, when carving runes in wood or bone, he always

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carves the mainstaffs first because one holds one's knife in a different position from that used when carving the branches. When one was used to cutting in wood, which we must suppose, he says, his colleagues were, it may be imagined that one from force of habit applied the same method to carving in stone. Sandquist's answer caused me to go more deeply in the matter.

In this article I shall first consider those cases where there is a mainstaff to many (2). After that I shall study inscriptions where the punctuation mark is in the wrong place (3). Next I shall consider shallow or absent branches (4). I shall pay some attention to the "collision" of runes (5). Low, high, very short branches and short-branched runes will next be considered (6). Another point is that where branches are added to the wrong mainstaff (7). I shall also study those instances where there is a mainstaff or a whole rune too few (8). Another section will be devoted to the "chair-s" (9), followed by one about branches on the "wrong" side of the mainstaffs and about upside-down and reversed runes (10). I will also deal with the question of "wrong runes" (11). Finally I will discuss cases where the mainstaffs-first method does not apply (12). In the last section some general conclusions will be given (13).

The numerous indications I shall give of the possibility that the mainstaffs were made first, shall be seen as no moe than possible ways to account for certain phenomena. So other ways to account for them should by no means be excluded. I think, however, that it will be useful to consider the mainstaffs-first procedure as one of the ways to solve difficulties in connection with irregularities in inscriptions. By way of an example I may refer to the way Lena Peterson (1992, 91 f.) deals with $1-5$ iiaur in the Hoga stone (Bohuslän), where she sees 1-2 ii as a possible $\mathbf{h}$ with a missing connecting bar. She gives several suggestions for this, one of them being the forgetting of this bar, possible due to the runographer carving the mainstaffs first. The total number of cases that point to the possibility that the procedure under discussion was applied, may seem relatively small, but it should be realized that many cases may be latent: when the mainstaffs are regularly and amply spread, the later addition of the branches may for instance pass unnoticed.

As regards the material and period I have mainly limited myself to inscriptions from the Viking Age and the Middle Ages, mostly on stone, but because of Sandquist's comments inscriptions in other materials will also get some attention. Generally speaking I have not considered lost and very fragmentary inscriptions. Besides I must point out
that I have not aimed at completeness. It will be seen that I frequently draw attention to the probability that the addition of the branches was made either from left to right or from right to left, since this may be of importance in connection with the procedure under discussion. I think it is useful to draw attention to the use of the terms "long-branched" and "short-branched", which I use fore the lack of better terminology; these terms do not mean that the branches are long or short. It will be seen that I mark inscriptions by giving both name and number so that it will be easier to look up the inscriptions concerned. As regards the arrangement of the inscriptions in each of the following sections, I will in each section first discuss cases that are most convincing, followed by more dubious cases and finally those that are unlikely.

## 2. Mainstaff(s) too many

After what was said in $\S 1$, it will not be surprising that the most convincing evidence of the idea that mainstaffs were made first, is furnished by an inscription made in wood. I am referring to Urnes xviif, N 335. Magnus Olsen (NlyR iv, 111) states that it happened that a carver made his work easier by making the mainstaffs first, after which he added the branches, adding that this procedure is shown in the inscription under discussion. In it we find two runes (or) followed by twelve mainstaffs. Attention should be drawn to the sixth staff which has a short crossing line in the middle; one wonders if this was meant to be the beginning of a new word. It looks very much as if the carver for some reason or other gave up finishing his inscription. Nidaros $\mathrm{xv}, \mathrm{N} 843$ is an inscription made on a pillar. Liestøl (NIyR v, 50 f.) reads pilla followed by two mainstaffs. Olsen suggests that pila (with one I) was intended but when $4 \widehat{\mathbf{a l}}$ got a branch too many, the carver gave up. It seems as if the mainstaffs where made first and, in adding the branches, a mistake was made. Possibly the word was to have been pila grimr. Another inscription in wood is a most striking case of the mainstaffs having been made first: Borgund vir, N 596. At the end of the inscription we find five mainstaffs. According to Magnus Olsen (NIyR v, 212) these are mainstaffs to which the branches were added. Of course we cannot know why the inscription was not finished. Very interesting is the view that Olsen holds regarding uinar in Vinje iI, N 171. His suggestion (NIyR iI, 275) is that the initial $\mathbf{r}$ of runar was forgotten so that the first rune was $\mathbf{u}$. Then, "for å lette arbeidet",
he carved the remaining mainstaffs of the word runar, to which the branches were added. The mainstaff carved last, he provided with the r-branch. Thus he worked from right to left now, but when he had carved the branch to $\mathbf{a}$, he found that there was a mainstaff too many. The mistake could not be mended so he left the word as it was. It is remarkable that Olsen adds to this that since the mistake occurred in such a common word, the carver seems to have been worried about his mistake. In Hilleshög, U 25 we find a case that is slightly more speculative as regards the way the runographer worked. 44-52 hilabi i ot clearly has a mainstaff too many. If the mainstaffs were made first, after which the branches were added from left to right, the runographer will have found, when he was going to write the last word, that the first mainstaff after the ornamental band was redundant: he left 50 i for what it was and wrote ot after it. Incidentally, the spelling of this word without an $\mathbf{n}$ is of course a common phenomenon so that ot cannot be looked upon as an orthographic mistake. In Nolby, M 1, 52-57 fapuri we can see the superfluous $\mathbf{i}$ as the result of the runographer carving the mainstaffs first if we assume that the following punctuation mark was written immediately after the writing of the mainstaffs, that is, before the branches were added. If this assumption is correct, this means that the runographer, adding the branches from left to right, found the redundant mainstaff and must have realized that he was forced to leave things as they were. Klista, $U 764,52-56$ kupani: here we have another redundant mainstaff. This might be explained by the runographer carving the mainstaffs first, after which he added the branches from left to right; in doing so, he put the $\mathbf{n}$-branch on the $\mathbf{a}$ mainstaff, which left a mainstaff (56i) (cf. Meijer 1984, 48). Although there are indications that the maker of Lovö, $U 50$ was a poor speller or an illiterate who was a mediocre copyist (cf. Meijer 1997, 100), his spelling of aftir as eftiri may be considered as the possible result of the mainstaffs-first way of working, with a redundant final mainstaff. I should add to this that Peterson (1994) gives the spelling with an $\mathbf{i}$ following the final $r / R$ as a unique phenomenon.

I shall now discuss a few cases that are more dubious. Thus Brobyholm, $\operatorname{Sm} 96,31-34$ sini might be a mainstaffs-first case but $34 \mathbf{i}$ might also be looked upon as a kind of punctuation mark. The former possibility finds some support in the mistake I shall mention in $\S 8$. It should be added that the inscription contains many mistakes (see SRI 4, 225). In Gripsholm, Sö 178 raisa is written raiisa. It is unlikely that the mainstaffs in this case were written first since the "empty"
mainstaff occurs in the middle of the word. Yet I wish to draw attention to this spelling in view of what will be said about another word in the inscription (see § 4.2). Husby-Lyhundra, $U_{539}$ has a remarkable mistake, viz. ukixurika (instead of $\mathbf{u k} \times \mathbf{u r i k}[i] \mathbf{a}$ ). It is possible that in $\mathbf{u k i}$ the mainstaffs were written first, followed by the punctuation mark, after which the branches were added, leaving a redundant mainstaff. Another possibility, suggested by Wessén (SRI 7, 421), is that $9 \mathbf{i}$ got the wrong place, after $8 \mathbf{k}$ instead of after $13 \mathbf{k}$. The former idea is adhered to by von Friesen (1913, 88, n. 2), who says that certain runographers made the mainstaffs first "till ledning vid inskriftens disponering".

When discussing Gripsholm, Sö 178 I made the remark that when a branchless mainstaff occurs in the middle of a word, it is unlikely that the mainstaffs were made first. A few more examples will be given in which this occurs and where the mainstaffs-first theory therefore hardly applies: Sundra, G 3, 35-42 hâldiiaupu; Madla, N 248, 1-6 mârikus; Bällsta, U 225, 16-2ı karipu; Måsta, U 86o, 56-59 [k]u[i]p (cf. § 4.2); Örby, U 1011, 85-90 afiri; Björklinge, U 1047, 23-27 keisl; Axlunda, U 1052, $21-28$ anituitr.

See also § 4.2 for "absent branches". - It will be seen that the number of fairly certain cases of mainstaffs-first discussed in this section is relatively great. Thus the redundancy of a mainstaff is an important factor in studying the subject.

## 3. Punctuation mark in the wrong place

In Fide, G 28 we find $9-18$ kiarp:istan, where the punctuation mark follows $\mathbf{p}$ instead of $\mathbf{i}$. I would suggest that the runographer made the mainstaffs of these two words first, including the punctuation mark (see also § 8). When adding the branches, from left to right, he discovered his mistake, which could not be corrected. I wish to draw attention to the "Gotland" s( ${ }^{(\Gamma)}$ which with its full-length mainstaff might be in support of my theory. It should be added that there might be another way to account for the wrongly placed punctuation mark: the runographer may have forgotten $14 \mathbf{i}$ and discovered this after he has made the punctuation mark so that he was forced to put the $\boldsymbol{i}$ after this mark. He might of course have put the forgotten rune outside the textband, as was for example done in Klemensker 3, DR 401 and in Vible, U 92. In none of the rectangular Gotlandic tombstones in SRI 11, vols. 1 and 2 one forgotten rune has been added outside the text-band. A
similar case is found in Grötlingbo, $G_{36}, 108-116$ hiak r:unir, in which the punctuation mark after $111 \mathbf{k}$ is significant. I suggest that the runographer worked as follows: he made five mainstaffs (instead of four), next the punctuation mark (:) and finally four more mainstaffs. When adding the branches, from left to right, he found that he had a mainstaff too many for the first word. Since the word-dividing-mark already was there, the only thing he could do was to insert another dividingmark after $111 \mathbf{k}$. This insertion may account for the low position of this mark, which looks as if it had been "squeezed in". For another argument in favour of the mainstaffs-first theory in this inscription, see § 7. Quite instructive is the wrongly placed punctuation mark in Ålum 1, DR 94, 21-25 ikal:t:. If the mainstaffs (one too few) a nd the punctuation mark after 24 I were carved first, the omission was discovered when the branches were added. The missing $\mathbf{t}$ was written after the punctuation mark and another punctuation mark was carved after this $\mathbf{t}$. The same procedure may have been used in the following inscriptions: Urnes II, N 319, 32-35 ond:u:; Ivla, Sm 44, 46-52 urb[l]uf: i: (It should be noted that the higher dot of the second punctuation mark is in the middle of the higher branch of 51 f; this means that the branch was made after the marks.); Berg, Sö 192, 40-44 kupa•n•; Kynge, U 700, 44-50 hialub•i•; Barne-Åsaka, Vg 122, 28-33 filuk:a:. There are two more inscriptions of this type but without a punctuation mark after the last rune: Botkyrka, $\mathrm{Sö} 283,10-13$ lit:u and Snottsta, U 330, 43-46 bont $\times$ a.

It will be seen from this section that the wrongly placed punctuation marks are extremely important but only if one starts from the idea that the mainstaffs of a word were made first and immediately followed by the punctuation marks, before the branches were added.

## 4. Shallow and absent branches

### 4.1. Shallow branches

In only one instance the presence of shallow branches seems rather strongly to point in the direction of the mainstaffs-first theory. I am referring to Berga, $\operatorname{Sm} 28,19-20 \mathrm{pr}$. These runes are the last two of the inscription and both have shallow branches. It is specially the fact that they are the last two runes that suggests that the mainstaffs were made first and that their branches were forgotten when they were to get their
full depth. Here it is interesting to see what Kinander (SRI 4, 93) says about this. He mentions the possibility that the runographer had a less skilled assistant, to whom he left the finishing work, or that the two shallow branches were quite forgotten and were first put in when the stone had already been erected.

### 4.2. Absent branches

Three of the very striking instances of the mainstaffs having been made first were already dealt with in § 2 (Urnes xviII, N 335 ; Nidaros $\mathrm{xv}, \mathrm{N} 83$; Borgund vir, N 596 ), since these may be looked upon as cases where there are mainstaffs too many, although we might also see them as instances of mainstaffs that have no branches. Quite interesting is Bräkentorp, Sm 45 , where the noun $v(e)$ gamóti is found as $\mathbf{u}$-ki-muti, with the two elements divided by a punctuation mark. My suggestion is that the mainstaffs of the first element were made first, after which the branches were added. In doing so, the runographer forgot one branch, which accounts for the $\mathbf{i}$. Another interesting instance is that provided by Grinda, Sö 165, 50-53 iuli (instead of kuli). It looks as if the mainstaffs were made first and that next the branches were added, possibly from right to left. The branch of 50 i may not have been carved because of the small distance between this rune and the following, $5^{1} \mathrm{u}$. If the runographer had finished each rune in turn, he would have seen to it that there was room for the branch of $i$. I have already mentioned Gripsholm, Sö 178 (§2). Another word in this inscription points to the probability that the mainstaffs were made first, after which the branches, from left to right, were added and that of $86 \mathbf{i}$ was omitted ( $86-90$ iruni). Thus there are two occurrences that point to the mainstaffs-first procedure in this inscription. Slightly less certain is the case of Måsta, $U 860$, where 78 m lacks its branches. It is not so very likely that the mainstaffs were made first since the $\mathbf{m}$ is the first rune of the word, unless the runographer added the branches from left, which would make this a case like the preceding one. My theory is weakened by what was said about this inscription in § 2.

Next I will deal with a number of inscriptions in which the mainstaffs-first idea is less likely. In Bergen v, N 291 (made in wood) we find an $\boldsymbol{i}$ instead of $\boldsymbol{s}\left({ }^{\prime}\right)$ in $17-23$ iuæinen. This may be a case in point: the runographer may have written all the mainstaffs first and in doing so he may automatically have given all of them their full length. Once this has been done, correction was more or less impossible.

Incidentally, Magnus Olsen (NIyR iv, 55) calls this a "feilristning". In Örsta, $U_{211}$ the lower branch of $24 \mathbf{b}$ is missing. The runographer may either have written all the mainstaffs first and then omitted the lower branch of this rune when adding the branches, or he may have finished each of the runes and forgotten this branch. In a number of inscriptions a branch is absent in the last rune of a word: Haddeby 2, DR 2; Gunderup 1, DR 143 (cf. DR, col. 181; see also § 7); Tirsted, DR 216; Jäder, Sö 96; Aspa, Sö 137 (in this inscription two more branches have been omitted, though in the middle of words; see also below); Turinge, Sö 338; Dal, U 306; Enköping, U 759; Hjälteberga, U 1156; Drävle, U 163. It is dubious whether the mainstaffs where made first in these cases since one would expect the runographer to see quite easily that he had forgotten a branch. This seems also to apply to two inscriptions in which the first rune of a word is branchless, viz. Skresta, Sö 122 (see also § 7) and Måsta, U 86o (see also § 2). In Vallentuna, U 212 a branch has been omitted in the middle of a word, but see also $\S 7$, where an argument in favour of the mainstaffs-first theory is given. A similar omission occurs in Hansta, U 786 (25-31 purkiis) but attention should be paid to the rather great distance between $30 \mathbf{i}$ and $31 \mathbf{s}$ : it looks as if some space was left for the branch of rune 30 ; this would point to the mainstaffs having been made first.

Another number of inscriptions contain mainstaffs with their branches omitted. Thus I can mention Vänge, G 123 (but cf. § 10); Djulefors, Sö 65; Sundby, Sö 116 ; Skresta, Sö 122 (but see above and § 7); Aspa, Sö 137 (see above); Löta, Sö 141; Kvisthamra, U 531; Lundby, U 645; Fiby, U 908; Bräcksta, U 1039; Norra Härene, Vg 59. In all these cases it is quite unlikely that the mainstaffs were made first.

See also § 2, for "mainstaffs too many".
In all the instances mentioned in this section it should be realized that another possibility is that each of the runes was completed in its entirety and in doing so, the runographer simply forgot to cut one branch to its full depth or omitted it entirely by mistake.

## 5. The "collision" of runes

Although the number of collisions is only small, these "accidents" are quite instructive. In Tornby, $\mathrm{U}_{43}, 11-12 \mathrm{~km}$ appear as K . My idea is that when the mainstaffs were made first, the distance between those of $\mathbf{k}$ and $\mathbf{m}$ was so small that a collision of the branches was unavoidable
(see also § 9). The collision in Karby, U 150, 36-37 in ( $\mathbb{K}_{\text {) }}$ ) seems to be due to the fact that $36 \mathbf{i}$ was forgotten and afterwards inserted. Sursta, U 251, 23-28 iftrfa is a complicated case: the distance between 24 f and $25 \mathbf{t}$ is great, which might point to each rune having been finished in its entirety, but the distance between $25 \mathbf{t}$ and $27 \mathbf{f}$ is also great and in the latter case it looks as if $26 \mathbf{R}$ was inserted afterwards. Possibly there was originally a mainstaff too few. The "almost collision" of the lower branch of $27 \mathbf{f}$ and the mainstaff of $28 \mathbf{a}$ might also point to the mainstaffs-first way of working. Stora Vilunda, U 292, 10-11 tu ( $\uparrow$ II) is most probably a case where the mainstaffs were made first. Note the unusual shape of the right-hand branch of the $t$.

Finally a more dubious case must be discussed. I am referring to Torsåker, U 284, 21-25 iktil. Jansson (SRI 6, 461) suggests three ways to account for the remarkable "bind-rune": the sequence may be read as $\mathbf{i t}, \mathbf{k l}$ or $\mathbf{k t}$. He prefers the last-mentioned reading, unfortunately without giving his reasons for this choice. I think there are two possibilities to account for the sequence. One is that the runographer started writing iftir and found his mistake as he was carving the $f$ so that this rune only got the higher branch. The other possibility is that he first carved all the mainstaffs of the word but made one too few. When adding the branches, he discovered his omission and inserted both the mainstaff and the branches of $\mathbf{R}$.

In spite of the small number of cases in this section, they seem to be among the most convincing types.

## 6. Low, high, very short branches and short-branched runes

### 6.1. Low branches

Out of 37 cases that I considered, 11 seem to show rather clearly that the mainstaffs were made first, 5 are dubious, and 21 yield negative results.

I shall start with the first category. About Tjängvide, G 110,16 t Wessén (SRI 11, 195) says that its branch is low "för att ej kollidera med bistavarna i $15 \mathbf{f}^{\prime \prime}$. This seems to point to the mainstaffs having been made first. Åsby, Nä 15, 19-21 ana ( $\downarrow \uparrow \downarrow$ ): if each rune was finished in its entirety, the low branches of the $\mathbf{a}^{\prime}$ (and the high branch of the $\mathbf{n}$ ) would not have been necessary so that I conclude that the mainstaffs
were made first, which accounts for the low branches (and the high one). It should be added, though, that $17 \mathbf{n}$ has a low branch although there is no risk of collision. It should also be noted that all the other a's (seven in all) have their branches in the middle of the mainstaffs; of the other (five) n's, four have this normal position of the branches. Råby, U661, $73 \mathbf{h}$ has low branches; thus collision with the preceding punctuation mark was avoided. Note that this is the only $\mathbf{h}$ in the inscription so there is no possibility to comparison. Mysinge, U 821, 71 t: the branches start from a point below the top of the mainstaff in order to avoid collision with the preceding $f$. This seems to be a clear instance of the mainstaffs-first procedure. Skogstibble, U 88o, $7 \mathbf{t}$ : this is a case similar to that of the preceding inscription: a $t$ with lower branches, preceded by $f$ (see also § 9). Another instance of this type is found in Högsta, U 1085, 23-24 ft. Väsby, U FV1959;188, 21 a has a low branch, clearly in order to avoid collision with the preceding $\mathbf{t}$. So this is most probably a mainstaffs-first case. Varnhem, Vg 79 : once more a t (22) has lower branches after 21 f. Råby, Vs 17 has an $\mathbf{a}$ (54) with a low branch and is preceded by 53 f . It should be added, though, that both t's have lower branches although there is no risk of collision. Berga, Vs 18 one more has an $\mathbf{a}$ with a low branch, in this case in order to avoid collision with the preceding punctuation mark. If the mainstaffs in the inscriptions mentioned so far were made first, this would mean that the addition of the branches was made from left to right, with the exception of Åsby, Nä 15, where the direction of writing cannot be determined.

Next we must have a look at the cases which I called dubious. In Nordre Gullskoen, N 649 rune 4 is either $\mathbf{a}$ or $\mathbf{t}$. If it is $\mathbf{t}$, it has a low branch, but low branches occur repeatedly in this inscription, not only in $\mathbf{t}$ but also in $\mathbf{I}, \mathbf{u}$ and $\mathbf{r}$. But if it is $\mathbf{a}$, the branch had to be high in order to avoid collision with $3 \mathbf{n}$. In the latter case it is possible that the mainstaffs were made first (see also §6.2). Viby, Nä 1 is a very fragmentary inscription, where $2 t$ has very low branches, which may be due to the mainstaffs having been made first and where the runographer added the branches, working from left to right. Ed, U 104 is a complicated case. The low branches of 39 and $79 \mathbf{t}$ suggests the making of the mainstaffs first as they are both preceded by $\mathbf{f}$, but these low branches are also found in 65 and $66 \mathbf{t}$, where there is no risk of collision. The small $\mathbf{t}$ (21) after $\mathbf{f}$ might be a later insertion. It should be added that the remaining t's $(5,10,105)$ have their branches start from the tops of the mainstaffs (cf. § 8). Ängvreta, U 1139, 40 n has a low
(one-sided) branch, followed by $41 \mathbf{a}$, with its (one-sided) branch in the "normal" position. This might be a case where the mainstaffs were made first; if so, the branches were added from right to left. It should be noted that the mainstaffs of $41 \mathbf{a}$ and $42 \mathbf{f}$ are very close together, probably through lack of space and/or lack of planning (cf. Meijer 1992, 49; see also $\S 6.3$ and $\S 8$ ). Hög, $\operatorname{Vg~182,~} 46$ a has a low branch, possibly to avoid collision with the preceding $\mathbf{k}$. It is remarkable, though, that this $\mathbf{k}$ has an extremely large branch. None of the remaining five $\mathbf{a}^{\prime} \mathbf{s}$ and four n's have low branches.

I have selected a number of inscriptions in which one or more runes have lower branches although there is no risk of collision. I have grouped together cases with a lower branch in $\mathbf{t}$ and/or $\mathbf{I}$, in $\mathbf{n}$ and/or $\mathbf{a}$, followed by a few special cases. $\mathbf{t}$ and $\mathbf{I}$, and $\mathbf{n}$ and $\mathbf{a}$ have been taken together because the nature of the shapes of these runes is similar.

All t's and/or l's and all n's and/or a's with lower branches are found in Ljungby, Sm 170; Upp-Norrnby, Sö 272; Farsta, Sö 290; Ubby, U 504; V. Ledinge, U 518; Lena, U 1026; Sigtuna, S:t Lars, U FV1958;250; Häggesled, Vg 26 (this inscription is only fragmentary).

Part of the t's and/or l's and of the n's and/or a's has lower branches; these are found in: Lovö, U 49; Lingsberg, U 241; Harg, U 318; Tibble, U 611; Kålsta, U 668; Norsta, U 68ı (see also §6.2); Åkerby, U 1066 (SRI 9, 348: the low branch of $5 \mathbf{n}$ is due to the nature of the stone): Gimo, $\mathrm{U}_{1132}$ (SRI 9, 524: the low branch of $38 \mathbf{t}$ is due to the nature of the stone; see also below); Härlingstorp, Vg 61; Romfartuna, Vs 20.

The special cases referred to above are: Gimo, U 1132: $23 \mathbf{p}$ has a low branch; six $\mathbf{p}$ 's have "normal" shapes (see also above); Hammarby, U FV1959;196: all f's are shaped thus: $\boldsymbol{F}$; Lingsberg, U 240: $69 \mathbf{t}$ has low branches: there is a slight risk of collision, but all the other $\mathbf{t}$ 's have low branches, too, as have all four l's.

### 6.2. High branches

There are seven inscriptions in which a high branch seems clearly to point to efforts to avoid collision. For the first - Åsby, Nä 15 - I refer to what was said in § 6.1. In Stensta, U $32224 \mathbf{a}$ has an extremely high branch, whereas the other three a's and all three n's are "normal". Linsunda, U 734 shows a high branch in $16 \mathbf{n}$; the remaining two $\mathbf{n}$ 's are normal, as are all three a's. In Hindsberg, Vg 12 the branch of 7 $\mathbf{n}$ is high, as against three normal n's; all six a's are normal. It should be added that the branch of $8 \mathbf{a}$ is slightly lower than normal (but
see §6.3). Ryda, Vg 124 contains an $\mathbf{a}$ that has a highly placed branch (rune 17); the other $\mathbf{a}$ is normal, as are all three $\mathbf{n}$ 's. Lödöse, Vg 273 (an inscription made in wood) has one $\mathbf{a}$ with a high branch. There are no other a's and no n's. The inscription consists of only four runes. The last inscription - Lödöse, $\operatorname{Vg} 280$ - was also made in wood: $12 \mathbf{a}$ has a high branch; the other $\mathbf{a}$ is normal, as are all five $\boldsymbol{n}$ 's.

Four inscriptions possibly contain indications that branches were placed high in order to avoid collisions but they are more dubious. Nordre Søstergården, N 675 (wood): 4 a may be a case in point. Cf. NIyR V, 152: "Kvisten er plassert høyt, vel for å unngå å krysse den foregående runens kvist." It may be added that $8 \mathbf{a}$ has a slightly higher branch, whereas the only $\mathbf{n}$ is normal. The high branch of $5 \mathbf{a}$ in Nordre Gullskoen, $\mathrm{N}_{701}$ is accounted for in the same way as in the preceding inscription (see NIyR V, 171). In Vallentuna, U 21436 and 41 h have high branches, possibly in order to avoid collision with the preceding punctuation marks. On the other hand all three $\mathbf{p}$ 's have high branches although there is no risk of collision; this holds also good for 370 (the other two o's are normal) (see also above). In Hårdnacka, U580 15 a has a high branch, which may be due to the danger of collision.

As in §6.1 I shall give a selection of inscriptions which contain one or more runes with high branches although there is no risk of collision. Compared with the occurrence of low branches mentioned in $\S 6.1$ it is remarkable that there are no inscriptions in which all the runes concerned have high branches. It is also striking to see that when comparing the n's and a's, there are 10 instances of only one or more n's with high branches (Lilla Lundby, Sö 202; Lingsberg, U 40 (cf. §6.1); Villberga, U 738; Norsta, U 861 (cf. § 6.1); Olsta, U 871; Uppsala, U 929; Nyvla, U 1092; Stora Salfors, U 1158 (cf. § 9); Bogård, U FV986;84; Tang, Vg 108 (cf. §6.3)) as against one of only a with a high branch (Västerås, Vs 13) and one with both $\mathbf{n}$ and $\mathbf{a}$ with high branches in $\mathbf{p}$ (Råberga, U 684). Besides there are five cases with high branches in b: Vallentuna, U 214 (see also above); Marma, U 485; Söderby, U 1134; Tierp, U 1144; Fotsby, U 1154.

### 6.3. Short branches

In 10 inscriptions I found instances of rune-shapes that seem to point to the mainstaffs having been made first. What is striking is that they are all but one $f^{\prime}$ 's, which are all shaped thus: $F$, according to my idea in order to avoid collision of the lower branch with part of the follow-
ing rune. In seven cases the $\mathbf{f}$ is followed by a $\mathbf{t}$, which is not surprising since aeftir is a word of frequent occurrence (Åsby, Nä 15 (cf. §6.1); Urvalla, Nä 32; Uppgränna, Sm 122; Armeneby, Vg 3; Strö, Vg 47; Synnerby, Vg 73; Väby, Vg 160). Besides I found fr (Hindsberg, Vg 12 (cf. § 6.2); Gölingstorp, Vg 192; cf. § 6.8) and fa (Armeneby, Vg 3; Synnerby, Vg 73 ) twice each, and $\mathrm{f}_{\mathrm{R}}$ once (Össeby, U $\mathrm{FV}_{1972 ; 172 \text { ). The remaining }}$ inscription is Salna, $U_{323}$, where the higher branch of 840 is short, probably in order to avoid collision with the left-hand branch of the following $\mathbf{n}$. It looks very much as if, provided the mainstaffs where made first, the addition of the branches took place from right to left. The number of inscriptions from Västergötland in this paragraph is remarkably great, although I should point to the last part of the present sub-section, where inscriptions are referred to in which there are no indications that the mainstaffs where made first: only two of these are from Västergötland.

Next I shall deal with a number of inscriptions in which the mainstaffs-first procedure is less convincingly demonstrated. Once more the majority contains a ${ }^{F}$-shaped f . I shall deal with these inscriptions individually as some comments seem required. Hansta, U 72: there is a danger of collision with the left-hand branch of the following t. It is the only $f$ in the inscription. It should be noted, though, that it attributed to Visäte, who favoured the $F$-shaped $f$. Lindö, $U$ 236: there is a risk of collision between $7 \mathbf{f}$ and the mainstaff of the following $\mathbf{a}$, and between $37 \mathbf{f}$ and the left-hand branch of 38 t . But it should be added firstly that in the case of the two remaining $f$ 's there is no risk of collision, and secondly that the inscription was signed by Visäte (but cf. §6.4). Something similar is found in Granby, U 337: 12 f might have collided with $13 \mathbf{i}$ if the lower branch had been longer. There could also have been a risk of collision, this time with a following punctuation mark, in the case of 100 f . However, this inscription contains five $\mathrm{f}^{\prime} \mathrm{s}$ with no such risks. Besides all thirty a's, all ten n's and all three o's have short branches although there is no risk of collision. This inscription, too, was signed by Visäte. In two Västergötland inscriptions we also come across the $\mathcal{F}$-shaped $\mathbf{f}$, where there might have been risk of collision with the following $t$. The inscriptions concerned are Stora Ek, $\mathrm{Vg}_{4}$ and Läckö, Vg 35. In both there is only one f . This makes it impossible to say whether the runographer normally gave his $f$ 's the F -shape. Collision with the following punctuation mark might have occurred if the right-hand branch of $5 \mathbf{a}$ in Sigtuna, $U 379$ had been longer. Incidentally, the inscription contains seven a's with long branches. In

Ängvreta, U $113968 \mathbf{a}$ has a very short onde-sided branch so that it does not collide with the preceding $s(4)$. In this case, if it is an instance of mainstaffs-first, the addition of the branches would have been performed from left to right (cf. § 6.1 and § 8).

In a much greater number of instances than those mentioned so far in this sub-section short branches cannot be shown to be the result of the avoidance of collision as there is plenty of space. Here, too, we find the $F$-shaped $f$. Out of 15 inscriptions in which this occurs, ten are signed by (S) or attributed to (A) Visäte; A: Hansta, U 73; Kista, U 75; Råcksta, U 207; Lindö, U 238 (but cf. § 7); Solsta, U 350; Malmby, U 503; Målsta, U 511; Torsätra, U 6ı3; S: Säva, U 862 (the runographer's name is damaged). Of the remaining " $F$-cases" one is found in Uppland (Vible, U 92; cf. § 8), two in Västergötland (Häggestad, Vg 22 and Täng, Vg 108; cf. § 6.2) and two in Västmanland (Grällsta, Vs 27 and Österbännbäck, Vs ${ }_{31}$ ). "Riskless" short branches were found most frequently in n's and a's. I did not distinguish between long- and shortbranched rune-types; neither did I make a distinction between inscriptions in which it is only the $\mathbf{n}$ 's or only the $\mathbf{a}$ 's that have abnormally short branches as these distinctions are irrelevant for the present study. Incidentally, it is not surprising that $\mathbf{n}$ and $\mathbf{a}$ show this phenomenon in a great majority ( 35 out of 54 inscriptions) since the frequency of these two runes is high in a general way (over $22 \%$ of all runes; a count I made from Peterson 1994). Finally I must mention some inscriptions containing runes with abnormally short branches other than $\mathbf{f}, \mathbf{n}$ and a. Funbo, U 987 (but cf. $\S 9$ ), with one $P$-shaped $b$ (as against eight "normally"-shaped p's) and Altuna, U 1161, where all eleven p's are P-shaped. Snottsta, U 330, where both o's have a short lower branch. Gådi, U 739, where all three m's have a short left-hand branch.

### 6.4. Short-branched runes

Among the inscriptions containing one or more short-branched runes there are only two in which the mainstaffs-first procedure is rather evident. Thus in Lindö, $U_{236}$ rune $28 \mathbf{s}(\mathrm{l})$ has its upper half more deeply cut than the lower half. This might mean that the runographer made a kind of sketch of all the mainstaffs, after which he found that the lower half of the $\mathbf{s}$ in question should not be cut to its full depth. The use of the two s-types - long-branched and short-branched - is remarkable in the Visäte inscriptions. In U 236 there are five '-shaped s's and only one 4 -shaped $\mathbf{s}$. If we look at all his signed inscriptions, we find that
there are $294 / \mathbb{N}$-shapes ( $214 ; 8 \mathrm{~N}$ ) and 29 '-shapes. By way of comparison I can give dates from Åsmund Kåreson ( $314 ; 14 \mathrm{~N}$; o '); Balle ( 99 $4 ; 9 \mathrm{~N}$; o '); Öpir ( $1504 ; 4 \mathrm{~N}^{\prime}$; $0^{\prime}$ ) (cf. § 6.3). The other inscription that seems to show the making of the mainstaffs first is Hårdnacka, $U_{580}$, where $2 \boldsymbol{a}$ has this remarkable shape: $Y$, as against the remaining four a's of the long-branched rune-type. It should be added that the shape $2 \boldsymbol{a}$ is quite exceptional. Thus it occurs neither in the signed Balle nor in the signed $\AA$ smund Kåreson inscriptions (for $\AA$ Asmund Kåreson, see Thompson 1975, 96); Visäte uses it only once and Öpir twice (for Öpir, see Åhlén 1997, 74) (cf. § 6.2).

As regards the cases where the mainstaffs-first procedure is dubious, I came across six instances. Hanning, DR 48 has one short-branched $\mathbf{t}$ (rune 24), with a relatively small distance between this rune and 25 $\mathbf{u}$, whereas the other two $\mathbf{t}$ 's as well as all three $\mathbf{n}$ 's and all three $\mathbf{a}$ 's are of the long-branched type. If the mainstaffs were made first, this would mean the branches were added from right to left. Riala, U 179, has two runes ( $4 \mathbf{n}$ and $38 \mathbf{n}$ ) that might have collided with the preceding runes ( $3 \mathbf{a}$ and $37 \mathbf{i}$ ) if they had been of the long-branched type. The remaining $\mathbf{n}$ is also short-branched although there would not have been any risk of collision if it had been long-branched. Neither is there any risk in the case of the one short-branched $\mathbf{a}$; the remaining six a's are long-branched. Thus it looks as the runographer used a mix of both types. The same holds good for Stora Benhamra, U 200, where in the short-branched $93 \mathbf{a}$ a collision would not have been impossible if it had been a long-branched rune, though short-branched 98 a would not have caused collision. Note that the remaining seven a's are long-branched, as are all eight $\mathbf{n}$ 's (cf. § 8). The only $\mathbf{n}$ (rune 22) in Sigtuna, U 384 is short-branched though apparently not to avoid collision. $2 \boldsymbol{a}$ on the other hand might have been short-branched with a view of the following $t$, which has its branches low on the mainstaff. Sigtuna, U 391 has two short-branched n's and one short-branched a but there would not have been any risk of collision if they had been long-branched. It should be remarked that in the remaining $n$ 's and a's the branches on one side of the mainstaffs are often very short, especially towards the end of the inscription, where the runes are close together. $32 \mathbf{a}$ has a remarkably low branch, possibly because of the preceding $\mathbf{p}$. Norby, U 898: there would have been no risk of collision if $44 \mathbf{n}$ had been long-branched but it is remarkable that the other four $n$ 's and all ten a's are long-branched. In no less than 47 inscriptions I found a mixture of long-branched and short-branched runes without
there apparently being any risk of collision if the short-branched ones had been long-branched. There are two more inscriptions that deserve some special attention here: Husby-Lyhundra, $U 541$, where both a's and the only $t$ are short-branched. And Flasta, U FV1968;276 (which is only a fragment): $8 \mathbf{a}$ is a short-branched rune and no other $\mathbf{a}$ 's nor any $n$ 's occur.

In the cases mentioned in this section it is important to consider the idiosyncracies of some runographers as regards the shapes of certain runes; a very telling example is furnished by the $f$-shaped $f$ in the Visäte inscriptions. Besides it should be mentioned that the use of short-branched runes hardly offers any contribution to the mainstaffsfirst theory.

## 7. Branch on the wrong mainstaff

A number of inscriptions in this section contains rather clear indications that the mainstaffs were made first. When mentioning Gunderup 1, DR 143 before (§4.2), I drew attention to the branchless mainstaff 15, suggesting that this is not a mainstaffs-first case. But if we look at the whole word-group 11-20 stini poisi, it does look as if the mainstaffs were made first, after which the runographer made a muddle of the addition of the branches. In Grötlingbo, G 36 we find 31-37 [bo] taapi instead of [bo] taipi. I suggest that the mainstaffs were made first, after which the branches were added from right to left and that, in doing so, the runographer gave $35 \mathbf{i}$ a branch by mistake; after this the $\mathbf{a}$-branch was also added to the mainstaff of rune 34 (cf. § 3). In Hade, GS 6 we find the word mopur with a curiously shaped $\mathbf{p}$ : $\bigoplus$. This is commented upon by Jansson (SRI 15, 56) as follows: "över huvudstaven har ... nedtill en snett uppåt höger gående bistav ristats. Tydligen har ristaren tänkt rista en o-runa; han har av tanklöshet börjat upprepa föregående runa ( 70 ) men upptäckt sitt misstag, innan runan var färdigristad." My idea is that the mainstaffs were made first; when adding the branches, from right to left, the runographer at first forgot the $\mathbf{p}$-branch, starting with the lower o-branch. When discovering his mistake after that one branch, he "corrected" it by carving the $\mathbf{p}$-branch. The "mysterious" name fiatr in Ljungby, Sm 169 seems to represent Faeitr (Källström 1997, 35); if so, the spelling should have been *faitr. In that case I would suggest that the branches, after the mainstaffs had been carved, were added from right to left and that, in doing so, the runographer put the
branch on rune 3, that is, one mainstaff too early. In Skresta, Sö 122, 54-59 runs: kaarpi with $55-56$ shaped thus: $1 \nmid$. (In SRI 3,92 the word is rendered kiarbi!) This might mean that the mainstaffs were made first, after which, in adding the branches from left to right, the runographer started on the branch of $\mathfrak{a}$ on the mainstaff of rune 55; on discovering his mistake, he gave this up and next gave rune 56 the branch that was due to it (cf. §4.2). In Vallentuna, U 212 we find a curiously shaped punctuation mark $(\dagger)$ after $18-21$ stan. My idea is that the mainstaffs were made first, after which the branches were added from left to right, but rune 21 got a branch while $\mathbf{i}$ was meant; the result was an $\mathbf{n}$ and a mainstaff too many; from this redundant mainstaff a punctuation mark was made. It should be added that the other two punctuation marks are considerably smaller (cf. § 4.2). Lindö, U 238 contains a remarkable $\mathbf{f}$ (rune 25): $\mathfrak{F}$. It looks very much as if the mainstaffs were made first. When the mainstaff of rune 25 was provided with a branch, the runographer seems to have started on the left-hand branch of 26 $\mathbf{t}$ and when discovering his mistake, he also provided the mainstaff with its $f$-branches (cf. § 6.3). In Ingla, U 886 efftir is spelled fitir ( $4^{-8}$ ). The mainstaffs may have been made first and by mistake the branches that should have been put on rune 5 were added to the first mainstaff of the word. This resulted in a metathesis-like form (cf. Meijer 1995, 31). In Ramsjö, U 1056 we find sinn spelled sai (44-46). Possible the mainstaffs were made first and next the branches were added from left to right. The runographer made a mess of things, giving the mainstaff of rune 45 an $\mathbf{a}$-branch instead of an $\mathbf{n}$-branch, which besides should have been added to the mainstaff of rune 46 .

Two cases are more dubious. The first, $36-38$ blop in Bergen, N 633 has 371 provided with a branch on the left side of the mainstaff ( $f$ ). According to Liestel (NIyR vi, 63) this is probably the lower branch of the following rune. There is a possibility that this is an instance of the mainstaffs having been made first, after which the branches were added from left to right. By the way, this inscription was made in wood. In Holm, U 824 we find the spelling of staein as stian (22-26). This might be a mainstaffs-first case with the branches added from right to left and the $\mathbf{a}$-branch having been put on a mainstaff too early.

This section presents us with a relatively great number of fairly clear indications that the procedure under discussion was applied. There is not a single instance where this procedure had to be definitely refuted.

## 8. Mainstaff or whole rune too few

In this section I will not only deal with cases in which a mainstaff or a whole rune is missing but also with those in which this omission was righted.

I wish to start with a phenomenon of which I found only one instance that can be used in connection with my subject. I am referring to a bind-rune in Ed, $U_{106}, 20 \widehat{\mathbf{t a}}$, shaped thus: $\ddagger$. There is a possibility that the mainstaffs were made first and that the omission of one of these was discovered when the runographer had finished the $\mathbf{t}$, after which he solved the problem by creating a bind-rune. The $\mathbf{a}$-branch was added last as can be seen from its low position on the mainstaff. It should be added that four out of the five remaining a's have their branches more or less in the middle of the mainstaffs (cf. § 6.1). It is not unimaginable that runographers made the mainstaffs first and, doing so, made one too few and, when adding the branches, may then have discovered the omission, righting this by adding the rune concerned outside the text-band. Thus in Vible, $\mathrm{U} 9211 \mathbf{u}$ is in such a position and may therefore illustrate what I suggested as a possibility (but cf. $\S 6.3$ ). Another way to right the omission may, provided there is room for it, be that of squeezing the missing rune in between its two neighbours. Thus in Alstad II, N 62 we see that in 5-15 reisti stein $10 \mathbf{i}$ has been squeezed in between $9 \mathbf{t}$ and $11 \mathbf{s}\left({ }^{\prime}\right)$. Magnus Olsen (NIyR I, 152) thinks 10 i was "visst først uteglemt og senere innføiet". This may mean that when the mainstaffs were made, there was -- as appeared later -one too few. In Tu, N 228 Olsen (NIyR III, 159) sees two possibilities to account for $23 \mathbf{t}$, which is shaped thus: $\dagger$ and has a height that is about half that of the adjacent runes. He thinks that it was either forgotten and added afterwards or made so small in order to save space. I suggest the mainstaffs were made first but there was one too few; when adding the branches, this omission was discovered, upon which $23 \mathbf{t}$ was inserted. In Alby, U 19, 38-40 pur is shaped as follows: WR, with a umainstaff originally omitted and afterwards, together with its branch, squeezed in. It must be remarked that the mainstaffs of $38 \mathbf{p}$ and 40 $\mathbf{r}$ are rather wide apart but the distances between the mainstaffs in the whole of this inscription vary considerably. In Älvsunda, U 117 , 34-35 ir appear as follows: $\operatorname{l}$; the $i$-mainstaff may have been squeezed in after the omission was discovered. $26 \mathbf{t}$ squeezed in afterwards in Sanda, U 685 is a possibility after the mainstaffs-minus-one had been carved. An originally forgotten mainstaff may account for the curious
branch of $\mathbf{k}\left({ }^{( }\right)$in Viggby, U 751. Another instance is to be found in Danmark, $U$ 945: $56 \mathbf{n}$, which is so small that in B 410 it is rendered as a cross-shaped punctuation mark (see SRI 9,52 , fig. 26). It is mentioned as "litet" and "inträngt mellen $55 \mathbf{a}$ och 57 t" (ib., 53), but curiously enough it is not visible in the photograph (ib., pl. 12), to which attention was also drawn by Thompson (1975, 183, n. 6o) and Crocker (1982, 166, n. 13). In Ängvreta, U 1139, 42 f has its lower branch coalesce with the left-hand branch of $43 \mathbf{t}$. Besides the distance between the mainstaffs of 41 a and 42 f is strikingly small, which also suggests that the mainstaff of the latter rune was originally forgotten (cf. §6.1 and §6.3). In Helenelund, $U \mathrm{FV}_{1953}$;263 we find $25-26$ art shaped as follows: $\mathbb{I T}$, which looks very much as if there had been a muddle with the mainstaffs. I suggest that the $\mathbf{r}$-mainstaff was forgotten, which was discovered when the branches were added. In Silarps bro, Vg 175 the five runes of 39-43 fipur are close together. This is a more dubious case: the staff of $40 \mathbf{i}$ may have been forgotten and afterwards added, but then one might wonder why 39 f got a short lower branch, which is however not uncommon in Västergötland. Finally we find an indication of the mainstaffs-first procedure in another Västergötland inscription: Gölingstorp, Vg 192. In 18-22 eftir $21 \mathbf{i}$ touches the left-hand branch of $22 \mathbf{R}$, and besides the distances between the mainstaffs of $20 \mathbf{t}$ and $21 \mathbf{i}$ and between those of $21 \mathbf{i}$ and $22 \mathbf{R}$ are small. I suggest that, when adding the branches, the runographer discovered the omission of 21 i : it could not be moved farther to the left since it would then touch the right-hand branch of $\mathbf{t}$ (cf. § 6.3).

In a number of inscriptions the absence of a mainstaff might be accounted for if the mainstaffs of a word and the following punctuation mark were made first, which would mean that there was no room for the final mainstaff when the branches were added from left to right (see also § 3). Generally speaking this is not a very likely category of the mainstaffs-first procedure, perhaps with the exception of the omission of final $\mathbf{i}$, as e.g. in Grensten, DR 91 ( $10-13$ risp); Mejlby, DR ${ }_{117}$ (4-7 risp); Brobyholm, Sm 96 (8-11 rist) (cf. § 2); Kumlaby, Sm 124 (34-37 halb); Bettna, Sö 52 (44-45 at); Vrena, Sö 75 (9-14 tipkum); Hassmyra, Vs 24 (74-77 betr). (I discussed another way to account for "missing" i's - "hidden runes" - in Meijer 1984, 20 ff.) Apart from the cases just mentioned I do not think it is much use discussing all the other words in which one - and sometimes two or more - final runes have been "omitted" since many of these so-called omissions seem to have been intentional. Besides their number is extremely great so that
the mainstaffs-first procedure is most unlikely unless this is thought to have occurred very often, which is improbable. The most evident of these omissions is that of final $\mathbf{R}$ in $\propto e f t i r$, which I will deal with below. On the whole omission of final $\mathbf{r}$ (as well as of final $\mathbf{a r}$ ) is of quite frequent occurrence. One very special case should be mentioned here. I am referring to Hassla, $\mathrm{U} 667,21-23$ itu (instead of litu), in which it is the initial rune that is lacking. It is not impossible that the runographer made one mainstaff too few and had his mainstaffs preceded by a punctuation mark. In that case he would not have had room for the I, which was discovered when he added the branches from right to left. A curious case deserves some attention here: in Stora Benhamra, U 200 we find 30-31 ur shaped thus: $\mathbb{R}$. It looks as if in carving the mainstaffs the distance between those of these two runes was made too small (cf. $\S 6.4$ ). A further point to be considered is that in which a mainstaff is part of a line in the ornamentation. This is a very common phenomenon. It is only occasionally that one might consider the possibility of the mainstaffs having been made first. Thus in Tensta, U 1035, $12 \mathbf{a}$ has its mainstaff in common with an ornamentation line. It is noteworthy that the preceding rune, $11 \mathbf{t}$, is very close to $10 \mathbf{i}$, whereas the distances between the other mainstaffs in this inscription are quite great. On the whole, however, the procedure under discussion does not apply in those cases where parts of the ornamentation are used as mainstaffs, mainly because of what was said above about the high frequency of the use of ornamentation lines as mainstaffs.

Omission of a rune in the middle of a word is not likely to be due to the mainstaffs having been made first and in doing so, one was forgotten, for when adding the branches, the runographer would probably discover the omission at the end of the word or, if he worked from right to left, at its beginning. One case should be mentioned here, viz. Sävsta, U 749, 84-91 halfanar, which should be halftanar. What is remarkable here is the fact that 87 f stands before the rune-band and 88 $\mathbf{a}$ after it. The runographer may have looked upon part of this band as a $\mathbf{t}$. Thus it seems to appear that the ornamentation was made before the inscription, a procedure that is generally looked upon as the common one. This was confirmed by Erik Sandquist (cf. §1) in a private communication (4-3-2001), where he informed that he "plejer . . . at starte med selve ornamentikken".

Runes may simply have been omitted as there was no room for them, so the mainstaffs-first idea does not apply here. A very clear example is furnished by Korpbron, Sö 139, where the last "word" runs:
ru (instead of runar); there is simply no room for more. Besides it should be noted that the last six runes of the inscription are crowded (cf. Meijer 1992, 40). As in the case discussed above, there can be no question of the mainstaffs having been cut first when a rune has been omitted although there was plenty of room fore it in the inscription. This applies to numerous cases, of which I shall only mention one by way of example. In Tensta, U 1036 the last word, antuita, has no final $\mathbf{R}$ although after $97 \mathbf{a}$ (in which the mainstaff is part of the ornamentation) there is plenty of room in the rune-band after a crossing band. As I mentioned before, something must be said about the omission of final $\mathbf{r}$ in aeftir. At first sight this might look as if a mainstaff too few was made. But the number of instances of spellings such as afti, efti, ifti is so great that other ways should be found (and have been found) to account for the "omission". I need only add here that according to Peterson (1994) the word in different spellings but all of them without final $\mathbf{r}$ occurs no less than 51 times.

To conclude this section I wish to mention a quite unusual feature, found in Kungshållet, Sö 106. Here 105 n consists of a branch only. For some reason or other the runographer never carved the mainstaff, thus working - at least in this one instance - in a way that is the very opposite of what is most probably the common one.

The cases in this section may of course generally speaking also be due to simple forgetfulness, in which each of the runes was finished in its entirety.

## 9. Chair-s

The type of $s$ that I will deal with in this section may conveniently be called the "chair-s" (Swedish "stolsruna"). It occurs in different shapes, of which $h$ and $H$ are the most common. For the possible reason why $h$ is the most frequent one, see Meijer 2000, 25, where a short comment is given on the chair-s and where the mainstaffs-first procedure is also briefly mentioned.

In this paragraph I shall discuss a number of inscriptions where the procedure just mentioned is fairly evident. In Näsby, U 455 we find 18 s shaped thus: 4 , which is a fairly uncommon form ( $6.1 \%$ of all chairs's). It is important to look at its surrounding runes: $\not_{x} 4 \uparrow$. I would suggest that the mainstaffs were made first and that the branches were next added from right to left; if the most frequently used chair-s (h:
$81.2 \%$ ) had been used, it would have touched the left-hand branch of 19 t ; next the punctuation mark had to be put quite low and after that the branch of $17 \mathbf{a}$ had to be placed rather high on the mainstaff. It should be added that the inscriptions contains four "normal" s's. In Burunge, $U_{1140,11 s}$ has the not very common shape of $\mu$ ( $9.6 \%$ ). Seeing that the distances between the mainstaffs show only few differences, the mainstaffs-first procedure is by no means unlikely. This inscription also contains three "normal" s's. In Törnby, U 43, 63 $s$ has a curious shape: $h$. Since the distance between the left-hand vertical and the following mainstaff is quite like the other distances in the inscription, it is quite possible that the mainstaffs were made first. There are four "normal" s's in the inscription. A most instructive case is that of $15 \mathbf{s}$ in Kragsta, $U_{572}$. This is the commonest type of chair-s but the lower half of the full-length vertical is shallower than the rest of the rune (cf. SRI 7,454 ). This points to the making of a preliminary sketch, in which all the mainstaffs were given full length. On finishing the inscription, it was found that there was half a mainstaff too many so that was not carved to its full depth. It should be noted that the distances between the mainstaffs are quite regular. A similar case is found in Funbo, U 987, where the lower part of the full-length vertical looks only "sketched" in the chair-s 38 (h) (cf. SRI $9,148)$. The other s's in the inscription are "normal". The runes discussed here are extremely important and interesting as they give us a glimpse of the way the runographer worked. Next we can consider two cases where the s is shaped H and H respectively, viz. Stav, Sö 58, $4 \mathbf{s}$ and Klippinge, Sö $210,82 \mathbf{s}$. Here it might be suggested that in carving the mainstaffs first, one too many was made. When this was discovered, it was solved by giving the runes their exceptional shapes. By the way, $H$ also occurs in Skyberg, Vg 133, but as this inscription contains four more chair-s's of the $h$-type and the $H$-shape is found three times, this is most probably not a mainstaffs-first case because it is very unlikely that a mainstaff too many was carved so many times. Finally attention must be drawn to the occurrence of the "Gotlandic" $\mathbf{s}(\sqrt{r})$ in Hammarby, U 1053. Both s's in the inscription are of this type, the only cases in the Viking-age inscriptions in Uppland. As the distances between the mainstaffs are quite regular, this looks very much like a case of mainstaffs first.

In a great number of cases there are less distinct indications of the mainstaffs-first procedure, among others because the inscriptions also contain one or more "normal" s's and because the distances between
the s's and the adjacent runes are so great that it looks as if each rune was finished in its entirety. In the latter group a number of inscriptions also contain one "normal" s or more. A special case is that of Vickeby, $U_{474,145}(4)$, which is a fairly rare shape (see above). Use of the most common chair-s ( h ) would have been impossible without colliding with $15 \mathbf{a}$. That is possibly why we find $4 \nmid$. But it should be added that the runes of this inscription are generally close together, which would also account for the short branches of $\mathbf{o}, \mathbf{h}, \mathbf{n}, \mathbf{a}, \mathbf{t}, \mathbf{l}$ and $\mathbf{R}$.

Finally there is a great number of inscriptions containing one or more chair-s's where the distances between the surrounding mainstaffs are too great for us to suppose that the mainstaffs were made first. In one instance the criterion of the distances is very dubious since the runes concerned occur in a bend of the rune-band: Snottsta, U331, $10 \mathbf{s}$.

It will be clear from the above that the instances mentioned in this section are of great importance in connection with the mainstaffs-first procedure although the number of chair-s's where this method does not apply, is great.

## 10. Branch on the wrong side of the mainstaff, upsidedown runes and reversed runes

There are only few instances of the branch on the wrong side of the mainstaff and no more than one where the mainstaffs-first procedure might be seriously considered. I am referring to Fittja, U 828, $69 \mathbf{n}(\mathrm{t})$. It is clear that there was no room on the right-hand side of the mainstaff, which might mean that the mainstaffs were made first, upon which the branches were added from right to left.

Although 25 and 78 b ( 8 ) in Järvsta, Gs 11 might have been given this shape as there was little or no room to the right of the mainstaffs, this does not apply to $52 \mathbf{b}$, which has the same shape. But this unusual shape might also refer to the fact that there are indications that the runographer, Åsmund Kåreson, was dyslexic, although be as a reversed rune does not occur in the other inscriptions by $\AA$ smund, neither in those signed by him nor in those attributed to him (about Åsmund's possible dyslexia, see Olsen (1953) and Meijer (1997, 94 f.)). In Transjö, $\mathrm{Sm}_{5,1} \mathbf{k}$ is a reversed rune ( $Y$ ). If we look at $1-4 \mathbf{k o t r}$ ( $Y \nmid \uparrow R$ ), we will see that if $\mathbf{k} \mathbf{k}$ had had its branch on the right side, it would have collided with the upper branch of $2 \mathbf{o}$. This might suggest that the mainstaffs
were made first after which the branches were added from right to left. Besides the branches of 20 may have been carved on the left side of the mainstaff since they would have collided with the left-hand branch of $3 t$ if they had been on the right side. It should be noted, however, that the other $\mathbf{k}$ 's are also reversed, where $21 \mathbf{k}$ might have this shape in order to avoid collision. Note also that 46 o has its branches on the left side, too, and besides the l's are reversed as well. The reversed o is of fairly frequent occurrence in Småland (cf. SRI 4, 14). $32.3 \%$ of all Småland o's have this shape. It is a shape that is extremely rare in Uppland ( $5.9 \%$ ) and in Södermanland (3.1\%). In Enet, Sm 7 we may account for the shape of $11 \boldsymbol{n}(\dagger)$ as a way to avoid collision with the branch of $12 \mathbf{a}$. There is a possibility that each rune was finished in its entirety, in which the runographer seems to have worked from right to left. (This direction could be quite likely especially if the runographer was an illiterate.) But making the mainstaffs first and after that adding the branches from right to left should also be considered. The later procedure is improbable because of the varying distances between the mainstaffs in general.

There are four more inscriptions that must be discussed here in connection with the use of reversed runes because of the risk of collision. Thus in Bösarp, DR 258, 2-4 uki we see a reversed $\mathbf{k}$ because of the following $i$; this would mean the branches were added from right to left. In Vänge, G 123 we find 18 as a reversed rune; thus its branch does not collide with the following punctuation mark. If this is an instance of the mainstaffs-first procedure, it would mean that the punctuation mark was already there when the branches were added, from right to left (cf. §4.2). Rycksta, Sö 163, 2-4 rur (R $/ \downarrow$ ) shows a reversed $\mathbf{u}$ so that its branch does not collide with the left-hand branch of $4 \mathbf{R}$; once more the branches were added from right to left. Finally we find a reversed $\mathbf{g}$ in Sund, Sö 318, 119-120 gu ( 4 N ); the avoidance of collision with $1 \geq 0 \mathbf{u}$ is evident and here, too, the addition of the branches must have taken place from right to left.

In four inscriptions we find upside-down runes that may be accounted for as a way to avoid collision. Björkö, Sö 92, 46-47 at ( $\downarrow \downarrow$ ): the branches seem to have been added from left to right. In Frölunda, Sö 222, 24-25 ft ( $\mathrm{k} \uparrow$ ) and Upp-Norrnby, Sö 272, 27-28 and 34-35 ft ( $\kappa \uparrow$ ) the addition of the branches must have been performed from right to left (for Sö 272, cf. §6.1). Åby, U FV1974;203, 32-33 Im ( ( L ): here the branches seem to have been added from left to right.

This section offers an interesting view of reversed and upside-down
runes and may in a number of cases account for the use of these rune types.

## 11. "Wrong" runes

In Töfta, Vg 113 we find a curious and unique mistake in 36-40 kupih (instead of kupan). My idea is that the mainstaffs were made first. Next the branches were added from right to left. I suggest that the mainstaff of rune 40 was provided with an $\mathbf{a}$-branch; by way of "correction" an $\mathbf{n}$-branch was added, which thus produced an $\boldsymbol{h}$. This could not be mended so the runographer continued with rune 38 , where the mainstaff was given its $\mathbf{p}$-branch. I should add that the mistakes could be camouflaged when or if the runes were painted afterwards. I can here refer to Peterson (1992, 92), where the mainstaffs-first idea is also mentioned. In Gryta, U 867 we find 26 r instead of $\mathbf{r}$. Wessén (SRI 8, 532) accounts for this as follows: "R står nära intill föregående runa; man kan förmoda, att $\mathbf{r}$ har valts framför $\mathbf{r}$ med hänsyn till utrymmet, för att ej kollidera med den redan huggna bst i 4 l." I think it probable that the mainstaffs were made first; if not, the runographer could have placed $26 \mathbf{R}$ (and $25 \mathbf{u}$ ) farther to the left.

Although the number of inscriptions in this section is very small, we can find here fairly certain support of the mainstaffs-first theory.

## 12. The mainstaffs not made first

The idea of this section is to point to cases where it can be shown that the mainstaffs were not made first. In general we can say that the use of the (half-length) short-branched $\mathbf{s}\left({ }^{1} /{ }^{\text {l }}\right.$ ) shows that the mainstaffs were most probably not made first. One case deserves some attention here, viz. 27 s in Vindlaus, N 169 , which is shaped thus: ł. This might point to the mainstaffs having been made first after which the runographer, when adding the branches, discovered that the mainstaff of $27 \mathbf{s}$ was too long (cf. NlyR II, 263). In Oslo v, N 19 we see that $31 \mathbf{i}$ has not got its full length. This might be a means to avoid collision with the branch of $30 \mathbf{k}$. (It should be added that the inscription is in reversed runes; cf. NIyR I, 46.) This implies that $30 \mathbf{k}$ was completed before $31 \mathbf{i}$ was made, in other words the mainstaffs were not made first. Dynna, N 68 has five long-branched s's and one short-branched
one. The space for the $\zeta / N$-shaped s's must have been fixed beforehand so the mainstaffs were most probably not made first. In Apelboda, Nä 29 we find a small $\mathbf{t}$ in the combination 16-17 $\mathrm{ft}\left({ }_{( }^{\boldsymbol{l}} \boldsymbol{\tau}\right)$. In view of the short mainstaff of $17 \mathbf{t}$ it is impossible that the mainstaffs were made first. Finally we find some runes that do not have their full height in Ängby, $U_{478}$, probably in order to save space ( $62 \mathbf{t}, 66 \mathbf{a}, 74 \mathbf{i}$ ). $85 \mathbf{a}$ has its branch low on the mainstaff in order to avoid collision with $84 \mathbf{h}$ and $86 \mathbf{n}$ (cf. SRI 7, 297). In view of the mutual distances between the mainstaffs, the mainstaffs-first procedure is practically excluded.

Finally I would suggest that the occurrence of abnormally long branches is a plea against the making of the mainstaffs first.

## 13. Conclusion

A concluding remark is hardly necessary because in my introduction I have already stressed the speculative character of this study. Still, in my opinion, the procedure discussed cannot be neglected. This can be seen from the following data. The mainstaffs-first procedure is very probable in 107 instances, as against 82 dubious cases and 97 where the procedure is most unlikely. It should be added that there are inscriptions which are discussed in more than one section of the present article. Thus four inscriptions can be ranged twice in the "very probable" category. Five inscriptions show traits of which one ranges them in the "very probable" category and the other in the "dubious" one. Two inscriptions are according to two different traits to be ranged as "dubious". Seven inscriptions have one trait that makes them "most unlikely", but another ranges them among the "very probable" ones. In two inscriptions one trait marks them as "dubious" and one as "most unlikely". In three inscriptions we find two traits from the "most unlikely" category, so that the unlikeliness is emphasized. Finally there are three inscriptions which occur in three sections: one with two "very probable" traits and one "dubious" one; one with one "very probable" and two "dubious" traits; and finally one with traits from all three categories. In all these cases I have decided in which of the three categories they were to be ranged. Generally speaking I put them among the "dubious" inscriptions although those with two traits that both put them in the same category, were naturally placed in that category.

As I said in my introduction, the number of mainstaffs-first instances is relatively small but yet it seems to me that we have to do with a pro-
cedure that should not be ignored when one is trying to account for certain irregularities.

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    Abstract: In the present article I will show that runographers may have made all the mainstaffs of each word first, upon which followed the addition of the branches in the word concerned. There are also inscriptions which suggest that the mainstaffs-first method meant carving the mainstaffs of runes belonging to more than one word. I shall study those cases where there is a mainstaff to many and inscriptions where the punctuation mark is in the wrong place. I shall consider shallow or absent branches and pay some attention to the "collision" of runes. Low, high, very short branches and shortbranched runes will be considered as well as branches added to the wrong mainstaff and those instances where there is a mainstaff or a whole rune too few. Another section will be devoted to the "chair-s", followed by one about branches on the "wrong" side of the mainstaffs and about upside-down and reversed runes. I will also deal with "wrong runes" and cases where the mainstaffs-first method does not apply. The indications shall be seen as no more than possible ways to account for certain phenomena.

