The Safaitic scripts: palaeography of an ancient nomadic writing culture

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Chapter 4

The Development of the 'Fine' Script

This Chapter has two aims. The first is to show that the 'fine' script is the result of a palaeographic development which started from the 'common' script. Most 'fine' texts are by members of the lineage of *ḍf*, and the many texts with long genealogies by authors belonging to this social group allow us to reconstruct their lineage-tree up to the earliest generations after *ḍf*, where we find texts that are still in the 'common' script. Thus, the identification of texts from different generations of the *ʾl ḍf* provides a diachronic framework to investigate this palaeographic development.[257]

The second aim is to establish a working chronological framework for Safaitic writing among the *ḍf*, namely by combining the information from the *ḍf* lineage-tree and the attested generations with the dated texts by members of this lineage. While the use of generations and lineage-trees for chronological purposes certainly involves a number of unknowns and requires several caveats, such a framework is relevant for the chronology of Safaitic in general, as it offers a much more certain time-range than the one provided by the conventional chronology of Safaitic (see §1.1.4). My calculations yielded a minimal secure time-span for Safaitic literacy among the *ḍf* of 220 years, with a *terminus ante quem* of the beginning of the 1st century BC and a *terminus post quem* of the end of the 1st century AD.[258]

Since the JQC contains only 23 texts which are unambiguously in the 'fine' script,[259] in this Chapter the Jebel Qurma data-set will be integrated with inscriptions from other corpora which have all been accessed via the OCIANA. Unlike all other Chapters, in which the *sigla* of inscriptions are followed by '/[script]', here they are followed by '/[generation number]', for the generation of the author is a more insightful label to

[257] For a discussion of the structure of this lineage and a reconstruction of the genealogical trees on which this study is based, see Appendix A.

[258] With *terminus ante quem* (TAQ) I mean the latest possible date for the earliest writing generation, while with *terminus post quem* (TPQ) I mean the earliest possible date for the latest writing generation.

[259] In addition, one text (QUR 529.20.1) is in the transitional script, and 4 others (QUR 321.2.1, 733.7.2, 239.16.1, and 678.2.2) are possibly transitional as well, but they lack sufficient distinguishing features to be sure (see §1.2.1); for a definition of transitional texts, see §4.1.3 below.

describe a palaeographic development from the 'common' to the 'fine' script – especially in the transitional stage between the two scripts. As it is only through genealogies which are at least three-generations long that we can identify authors – if not with complete certainty, at least with very high probability – whenever a text indicates only the patronym, the generation number is followed by a question mark.[260] But in all cases for which we have no clue as to the generation of the author, or if the author belongs to a lineage other than *ḍf* (i.e. *ʿwḏ*), I only present the 'naked' *siglum* of the text, without any additions.

The generations are counted starting from *ḍf*, which means that *ḍf*, who was probably the eponymous ancestor of the lineage, is counted as the first generation. We can deduce that *ḍf* was considered as the eponymous ancestor since many authors explicitly affiliated to *ḍf* – either through the phrase *ḏ ʾl ḍf* 'of the lineage of *ḍf*', or, more rarely, through the *nisbah* adjective *ḍfy* '*ḍf*-ite'.[261]

While the *ʾl ḍf* is also the social group to which we can ascribe the highest number of texts in the 'fine' script, it is not the only *ʾl* associated with this script. It is often difficult to determine if certain *ʾl*'s were large lineages, as the *ḍf*, or smaller groups, since the word *ʾl* in Safaitic appears to have been used to refer to groups of various sizes,[262] but it seems that some of the *ʾl*'s associated with the 'fine' script, as for example the *ʾl kn*, were sub-groups of the lineage of *ḍf* (see §A.1.1). However, this is not necessarily the case for all of them: a clear instance of an *ʾl* which seems to be a separate lineage is the *ʾl ʿwḏ*, attested in several 'fine' texts as well as in examples of less compressed texts from earlier generations.[263] It is therefore possible that the same kind of palaeographic development which occurred within the *ḍf* happened within the *ʿwḏ* as well. Further *ʾl*'s employing the 'fine' script include: *ms¹kt*,[264] *ḥẓy*,[265] *nġbr*,[266] *qmr*,[267] *wrqn*,[268] and *fṣmn*.[269] It would seem that, in texts by members of *ʾl*'s other than the *ḍf*, either their genealogies are too short, or, as in the case of the *ʾl ʿwḏ*, although long genealogies are well attested, we do not have a sample of texts from different generations which is as wide as the *ḍf* corpus. At any rate, we know that at least some *ʾl*'s using the 'fine' script

[260] A two-generations genealogy is not enough to identify with certainty the generation of an author, as different individuals may have shared the same name and patronym. Furthermore, different names may be hiding within the same consonantal skeleton. These issues have already been discussed in previous scholarship, see the references in Corbett 2012: 180, n. 7.

[261] In the OCIANA (accessed on 3 June 2021), *ḏ ʾl ḍf* occurs 95 times, while *ḍfy* is attested 10 times.

[262] See Harding 1969:3–5; Macdonald 1993:354, n.317; Al-Jallad and Jaworska 2019:30.

[263] See, e.g., the transitional script of Is.H 513, a text by a distant ancestor of the prolific 'fine' author *ṣʿd bn ġt*, of the *ʾl ʿwḏ* (see §6.2.2). This text is on the same panel as a *ḍf* text, to which it seems associated (on the relationship between *ḍf* and *ʿwḏ*, see §B.1).

[264] E.g. AbWS 1–3, AMSI 89, KRS 2306.

[265] E.g. HSNS 2, KRS 1420, MKWI 7.

[266] E.g. ASWS 226, MRTA 1, RMenv.D 8. Graf 1989: 362 maintained that *nġbr* was a sub-group of the *ʿwḏ*, but, as remarked by Macdonald 1993: 364, he lacked to demonstrate this on the basis of the genealogies.

[267] E.g. C 8, SESP.S 6, SIJ 894.

[268] E.g. AbSWS 33, MSTJ 6, RWQ 295.

[269] E.g. AMSI 51 and Is.H 763, the latter dated to the year 18 of Agrippa (Macdonald 2015: 152).

were sub-groups of the lineage of *ḏf*, and perhaps, as we will see, some others may have constituted sub-groups of the lineage of *ʿwḏ*, which furthermore seems to have had some sort of relationship to *ḏf*.[270]

Among the 23 inscriptions in the ‘fine’ script of the JQC, 5 can be no doubt ascribed to members of the lineage of *ḏf*,[271] with one author belonging to the *ġyr* sub-group,[272] and one to the lineage of *ʿwḏ*.[273] In addition, one text[274] indicates affiliation to the *bdn*, which seems to be a sub-group within the *ḏf* (see §A.1.1), but the genealogy of the author is weathered and illegible, and two texts[275] are by the same author of the *ʾl qṣ²m*, possibly a sub-group of the *ʿwḏ*,[276] but, in these two texts, this could not be confirmed on the basis of their genealogies.

4.1 From the ‘common’ to the ‘fine’ script

Fig. 4.1 shows two images of a panel with the inscriptions KRS 907/5 and KRS 907/10. In Fig. 4.1(a), one can see the whole panel, with KRS 907/5 (the hammered bottom text) in its entirety,[277] while Fig. 4.1(b) shows a close-up with KRS 905/10, which is lightly incised and runs above and to the left of the name of KRS 907/5. *mṭr*, the author of KRS 905/10, states that he found the writing of his grandfather (*ʿm-h*), likely referring to *mlk*, the author of KRS 907/5, who is his great great great grandfather.[278]

[270] See Appendix B.

[271] QUR 176.24.1/14, 586.20.1/14?, 2.239.1/11 and 2.253.1/11. The last two texts, by the same author *ḥrb bn mḥlm*, do not explicitly indicate affiliation to the *ʾl ḏf*. However, they present long genealogies which overlap with other *ḏf* genealogies going back to the eponymous ancestor, and can therefore be placed in the *ḏf* lineage tree (see Fig. A.9, Table A.6). They read: QUR 2.239.1/F *l ḥrb bn mḥlm bn ḥrb bn ʾ{d}m bn {ḥ}{ḏ}{g} {b}{n} {s¹}{w}{r} {b}{n} {ḥ}{m}{y}{n}* ‘By Ḥrb son of Mḥlm son of Ḥrb son of {ʾdm} son of {Ḥḏg} {son of} {S¹wr} {son of} {Ḥmyn}’; QUR 2.253.1/F *[l] ḥrb bn mḥlm bn ḥrb {b}{n} {ʾ}{d}m {b}{n} {ḥ}{ḏ}{g} {b}{n} {s¹}{w}{r} w----h f h lt ġ{n}mt w s¹l{m}* ‘{By} Ḥrb son of Mḥlm son of Ḥrb {son of} {ʾdm} {son of} {Ḥḏg} {son of} {S¹wr}…so, O Lt let there be {booty} and {security}!’.

[272] QUR 176.24.1/14; see §A.1.1 on the *ġyr* sub-group and §6.2.1 for a discussion of the writing style of this author.

[273] QUR 148.76.3.

[274] QUR 9.12.2.

[275] QUR 2.336.1 and 2.490.1.

[276] See §B.2. For a discussion of the writing style of this author, see §6.2.3.

[277] The text reads: KRS 907/5 *l mlk bn bdn bn rfʾt bn ws²yt* ‘By Mlk son of Bdn son of Rfʾt son of Ws²yt’.

[278] The full text reads: KRS 905/10 *l mṭr bn rdf bn ḫbṭ bn s¹mk b[n] s¹wr bn mlk w wgd s¹fr ʿm-h* ‘By Mṭr son of Rdf son of Ḫbṭ son of S¹mk {son of} S¹wr son of Mlk and he found the writing of his (great great great) paternal grandfather’ (see OCIANA). It appears that the authors of KRS 907/5 and KRS 905/10 are related, both belonging to the *bdn* sub-branch of the *ḏf*, splitting at generation 4 within the *ws²yt* branch (for the position of *bdn*, see the genealogical tree in Fig. A.3). This relationship is shown by texts with overlapping genealogies; cf. the genealogies of Mr.A 2 = LP 258/9 (*ḫyḏt bn ḫbṭ bn s¹mk bn s¹wr bn mlk bn bdn*) and C 2361/9 (*ḫyḏt bn ḫbṭ bn s¹mk bn s¹wr bn mlk bn bdn bn rfʾt*), both by *mṭr*’s uncle *ḫyḏt*, and the genealogy of C 2694/9 (*l rdf bn ḫbṭ bn (s¹)mk bn s¹wr bn mlk*), by *mṭr*’s father. None of the authors of the other texts on the panel (KRS 909, 910 and 911) would be eligible as *mṭr*’s grandfathers. Note that the word *ʿm*, usually translated as ‘paternal grandfather’, appears to have been employed also to refer to great grandfathers; cf. KRS 379/13, by an author of the *bʿḏrh* sub-branch of the *ḏf* (splitting at generation 5, see again Fig. A.3), who self-identified as *nhb bn s¹ʿd bn ġyrʾl bn s¹krn bn zkr bn ẓnʾl bn s¹b*, and said that

(a) KRS 907/5; bottom text (Photo: OCIANA)

(b) KRS 905/10; incised text (Photo: OCIANA)

Figure 4.1: Panel with texts by mlk (KRS 907/5) and his great great great grandson mṭr (KRS 905/10)

The graph forms of the two texts are strikingly different. KRS 907/5 is a typical text in the 'common' script, while KRS 905/10 is much more compressed and exhibits several typically 'fine' features. The *b*'s in KRS 907/5 are small deep curves , to be contrasted to the *b*'s in KRS 905/10, which are shallow curves/obtuse angles . The body of the *w* in KRS 907/5 is an oval with horizontal stance and vertical crossing line , while in KRS 905/10 it is a triangle or, elsewhere in the text, a rhomboid . While the form of the *k* in KRS 907/5 is more elongated and compressed than the usual 'common' forms – it is composed of a shallow curve with a slanted line protruding from the inside –, this formation is still distinct from the 'fine' form of *k*, which is found in KRS 905/10 five generations later: an obtuse angle with a stroke attached to its bottom .[279] Beside the forms of *b*, *w* and *k* described above, in the late text by *mṭr* one can notice the following 'fine' forms: the *m*'s composed of shallow curves/obtuse angles – *vs* the squarish, non-compressed *m* of KRS 907/5 –, the *ṭ* with a slanted crossing line , and the s^1 pointed and turned by 90° , although neither *ṭ* or s^1 occur in KRS 907/5, and cannot be compared. The *r*, in any case, is still a simple shallow curve , as in the earlier text by *mlk*, and it looks very similar to the *b* , which in this text is shallower than the *b* in the earlier text . Because of this feature, KRS 905/10 can be labelled as transitional between the 'common' and the 'fine' script, and it provides a snapshot of the palaeographic development which will be described in more detail in this Section. But first, let us look at the type of features distinguishing the 'fine' script from the 'common' script.

he found the traces of his *ʿm zkr*, probably referring his great great grandfather, as his grandfather is *ġyrʾl*. The OCIANA commentary to the text states: 'This text is a good illustration of how the word *ʿm* in Safaitic can mean "grandfather" or "ancestor beyond grandfather"'.

[279] In all 'fine' forms of the *k* attested in the JQC the body is a curve rather than an angle (see §2.1.13), but note that pointed variants are attested in the corpus of texts studied in this Chapter (see §4.1.3.3 below). Moreover, the simplification of a curved form to a pointed one is within the typical range of recurring graphic variables in Safaitic (see §2.1); cf. the *b* attested as both a curve and as an angle.

4.1.1 The 'fine' *vs* the 'common' script

As seen in the previous Chapter, the 'fine' inventory is distinguished from the 'common' inventory by several distinctive graph forms.[280] I have grouped the defining stylistic features of the 'fine' script as follows: 1) elongation and compression, and 2) further distinctive stylistic traits.

4.1.1.1 Elongation and compression

Perhaps the most outstanding feature of the 'fine' script is the distinctive elongated and compressed look of its inventory. Inscriptions in the 'fine' script appear as much more compressed than the average 'common' text. In 'common' texts we sometimes find elongated and compressed graphs as well, but mostly with different forms. For example, the 'common' form of the *r* as a shallow curve 𓂝 or as a long vertical line with short protruding arms 𓂞 are already compressed, and the 'fine' form 𓂟 is distinguished from the shallow curve form because of its vertical hooks. Moreover, in most 'common' texts only some graphs appear as elongated/compressed,[281] and sometimes elongated forms seem to have been used with the specific purpose of emphasising parts of the text.[282] This is never the case in 'fine' texts, as elongated forms are constitutive part of their inventory and are therefore always employed consistently in all graphs rather than being selectively used to emphasise the name of the author.[283] Furthermore, in the 'fine' script the forms of *ḥ* 𓄥 and *s*[1] 𓋴 are consistently pointed and turned by 90° – which gives them a more vertical stance and compressed look –, while in the 'common' script the 90° feature appears in conjunction with either curved or square forms and is used inconsistently, sometimes in order to emphasise parts of the text.[284]

4.1.1.2 Further distinctive stylistic traits

Beside the elongation/compression of 'common' forms, the following stylistic features characterize the 'fine' script against the 'common' script:

- The addition of hooks, see the form of *r* 𓂟 and the variants of *ẓ* 𓊃 𓊄 *vs* 'common' 𓎛 and 𓎡 𓎟;
- The preference for slanting rather than horizontal/vertical crossing lines in the forms of *ṯ* 𓈙, *ḏ* 𓐍 and *w* 𓅱, *vs* 'common' 𓏏, 𓐍 and 𓏲;

[280] For a complete list of the 'fine' distinguishing features as represented by the texts of the JQC, see §4.2.1.2.

[281] Cf., e.g., the writing style of the prolific 'common' author *fhrn bn khln*, with the *f*, *h* and *r* being compressed and elongated, but not the *b* and the *k* (see §6.1.2).

[282] See §3.1.3.

[283] In the 'fine' script, emphasis is mainly achieved via the use of bigger graphs. More rarely, square forms have also been attested, with other distinctive features of the 'fine' script being still recognisable; see the examples discussed in §3.2, Fig. 3.5(d)) and Fig. 3.5(c).

[284] See §3.1.2.

- The preference for pointed forms, cf. the forms of *s*¹ 𓋴 and *ḥ* 𓎛, which in the 'fine' script are consistently pointed rather than curved or square, and the rhomboids *g* 𓎡 and *w* 𓅱;[285]
- The use of incision in virtually all 'fine' texts.

4.1.2 Data-set

In order to investigate the palaeographic development from the 'common' to the 'fine' script, I will focus on a set of six graphemes:

- ***b***: its shape is a curve and is found at least once in all the texts selected for this analysis (embedded in the word *bn* 'son of'). The 'fine' forms of the *b* 𓃀 are mostly different from the 'common' ones 𓃂 because of their greater compression. For this reason, I have decided to measure the compression of the graphs of the *b* across generations by calculating their height to width ratio (the compression of graphs representing other graphemes has not been measured);
- ***r***: the 'fine' shape of *r* is a shallow curve with vertical hooks 𓂋. While this shape is stylistically distinct from the 'common' one, it is not distinguished by virtue of its greater compression, since the 'common' shape of *r* is quite compressed as well 𓂝;[286]
- ***k***: in the 'common' script it is usually a curve with a protruding, mostly slanted tail 𓎼, while in the 'fine' script it takes the more compressed form of a shallow curve with a slanted line attached to one end, as in 𓎽.
- ***ḥ***: an instance of a 'fine' shape which is turned by 90° 𓎛 to its 'common' equivalent 𓎟, as is also the case of *s*¹ (cf. the 'fine' form 𓋴 *vs* 'common' 𓊃);
- ***ḏ***: the main difference with the 'common' form 𓈎 is its compression and slanting of its crossing lines 𓈐, as also in the *ṯ* 𓏏;
- ***w***: an example in which the usual 'common' forms are circles/ovals/rectangles 𓇋 𓇋𓏺, which become rhomboids in the 'fine' script 𓅱 (cf. also some forms of 𓃾 and *g* 𓎡); the crossing line is moreover consistently slanted, as in the *ḏ*.

I will trace the palaeographic development of *b*, *r*, *k*, *ḥ*, *ḏ*, and *w* in the texts by members of the *ꜣl ḏf*, using the generations as chronological framework.

It should be kept in mind that texts from the same generation do not always need to have been written at the same time. It is therefore to be expected that some texts from a given generation may be more similar palaeographically to texts belonging to older or later generations. There is, moreover, the component of individual and idiosyncratic

[285] While there are pointed forms also in the 'common' inventory, they appear less often in the texts, with curvilinear forms being generally preferred.

variation: different authors who wrote at the same time may have developed or adopted certain features at a different pace. Some of the variation between texts from the same generation could be due not only to chronological differences, but also to an interplay between general trends – e.g. a tendency to use compressed forms – and the individual choices and preferences of the authors. Nevertheless, a general trend towards the development of distinctive stylistic features is observable. The main concern of this Section is to show this development, and I will describe it following the generations, because this is not only a useful chronological anchor, but also the only one we have, as dated texts are very few (see §4.2 below).

For generations 3 to 5, I have studied texts from all branches of the *ḏf*, since we have only a few texts from the earliest generations.[287] From the 6th generation onwards, we find larger quantities of texts. For the purpose of this analysis, I will only focus on the texts of one sub-branch, splitting from the 5th generation author *ḥmyn bn ġḍḍt bn ʾnḍt bn ws²yt bn ḏf*.[288] This sub-branch offers a sufficiently wide sample of texts for our investigation.[289] I will stop my analysis at generation 13, which after generation 12 is the second generation attesting only compressed texts with ‘fine’ features. I have merged the texts from generation 3 to 5, and the ones from generation 6 to 7, as to form two single groups to be compared to the later generations. The texts from early generations are so few that it would have not been very significant to consider each generation separately and to compare it separately to the later generations. This way the description of the development is more balanced. The data-set for this study includes only those inscriptions which are known from pictures and it consists of 169 texts in total: 14 texts from gens. 3 – 5; 11 texts from gens. 6 – 7; 15 texts from gen. 8; 31 texts from gen. 9; 28 texts from gen. 10; 29 texts from gen. 11; 26 texts from gen. 12; 15 texts from gen. 13. For the measurements of the compression of the *b*’s, the data-set is smaller than the one used for the study of graph forms, since I have further selected only the pictures that were taken perpendicularly in relation to the panel—in pictures taken from a slanted position, the proportions of the graphs are distorted.[290]

[287] See the remarks in §A.1 and the trees in §A.2, Figs. A.3 – A.5.

[288] See the trees in the Appendix, Figs. A.6 – A.13. Note that, unfortunately, the only text which may be ascribed to *ḥmyn* himself is C 2700/5?, but it is only known from a tracing; the 5th generation texts studied here all come from other sub-branches.

[289] Note that even though I will not describe the development in the other sub-branches, they all seem to show the same kind of development.

[290] Moreover, because rocks are often multifaceted and some texts run on more than one panel but not all panels were photographed frontally, and because parts of texts may be damaged, in the texts where one or more *b*’s are either not properly visible or damaged, those *b*’s have not been measured, but the others have. It should also be remarked that in Safaitic epigraphy it is rare to find a writing surface which is completely flat. In most cases, it is inevitable that, even though pictures have been taken frontally, there may be small hollows or irregularities on the rock which may partly alter the proportion of some of the *b*’s. If the irregularities do not appear to significantly affect the forms of the *b*’s, such graphs have been measured anyway. Lastly, even in those pictures which were taken frontally on a smooth panel, we can never be sure that they were taken in an exact perpendicular position to the panel. For all such reasons, while I excluded the instances with significantly deformed proportions, one should always keep in mind that, because of the nature of the material, a slight margin of error in the measurements cannot be avoided.

Finally, I shall note that 21 texts from generations 3 – 8 indicate only the patronym, so we cannot be completely sure about their identification.[291] I have therefore excluded such texts from the data-set of measured *b*'s, while for the study of graph forms I have highlighted examples of graph forms coming from the dubious cases through the use of a gray colour—see, e.g., , attested in WH 302/5?, *vs* , attested in WH 1711.2/5.

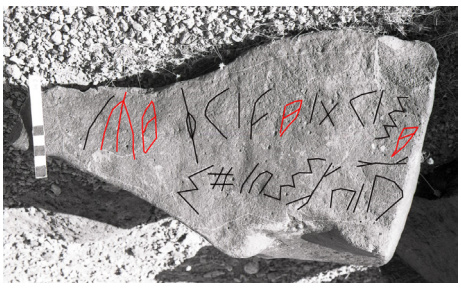
Thus, I will study the palaeographic development from the 'common' to the 'fine' script by focussing on the forms of *b*, *r*, *k*, *ḥ*, *ḍ* and *w* in the texts of the *ʾl ḏf* from generation 3 to generation 13, zooming in on the *ḥmyn* sub-branch of the *ḏf* in generations 6 to 13.

4.1.3 Tracing the palaeographic development

Having defined our data-set, let us look at how the palaeographic development from the 'common' to the 'fine' script unfolded. I have sub-divided the data-set according to three main stages: 1) 'common', 2) transitional, and 3) late 'fine'.

'Common' stage This is the earliest stage, represented by the texts from generation 3 to 5, which can mainly be classified as typically 'common' texts (see, e.g., KRS 278/5, Fig.4.2(a)). A few texts from generation 4 and 5 already exhibit two 'fine'-looking forms – the 90° pointed *ḥ* and the *w* as a rhomboid with a slanted crossing line (see KRS 1479/5, Fig.4.2(b), highlighted in red) – , but all other graphs are still 'common'.

(a) KRS 278/5; hammered text



(b) KRS 1479/5

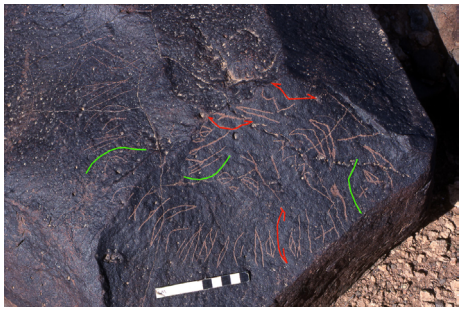
Figure 4.2: Two texts from the 'common' stage (Photos: OCIANA)

Transitional stage It is within generations 6 to 11 that the development from the 'common' to the 'fine' script truly unfolds: the distinctive features of the 'fine' inventory are gradually formed and the average compression of the *b* – and likely also of other graphs which have not been measured – steadily increases. In this stage, we see the appearance of more elongated and compressed forms, not all of which conform

[291] These are: KRS 1912/3?, WH 744.1/3?, KRS 1397/3?, Is.Mu 562/4?, WH 395.1/4?, KRS 469/4?, KRS 1449/4?, KRS 1802/4?, KRS 2456/4?, Is.H 47/5?, WH 274/5?, WH 302/5?, WH 1747/5?, WH 470/5?, Is.L 192/6?, Is.L 132/7?, Is.K 90/7?, Is.L 85/7?, Is.L 51/8?, Is.H 515/8?, Is.L 131/8?.

to the ‘fine’ inventory yet, as for example in KRS 173/6 (Fig. 4.3(a)), where a 90° *m* (highlighted in green) occurs next to the typically ‘fine’ 90° *ḥ* (highlighted in red). Additionally, as shown in the example in Fig. 4.3(b) (KRS 2993/10), some ‘fine’ hooked *r*’s start to appear (in red), and they can also occur next to the shallow curve form typical of the ‘common’ script (in green). From generations 9 to 11, a growing number of texts consistently employs the ‘fine’ forms of this and other graphemes.

(a) KRS 173/6



(b) KRS 2993/10

Figure 4.3: Two texts from the transitional stage (Photos: OCIANA)

Late ‘fine’ stage This is the final stage, starting from generation 12 onwards, in which nearly all texts present the complete stock of ‘fine’ features (see the examples in Fig. 4.4). I here take the consistent use of the hooked form of the *r* – since it developed rather late – as the point of reference for the end of the palaeographic development and the start of the ‘fine’ inventory as described in Chapter 2. This stage also coincides with the stabilization of the compression averages of the *b*.[292]

(a) KRS 1885/12

(b) AbSWS 18/13

Figure 4.4: Two texts from the late ‘fine’ stage (Photos: OCIANA)

The distinctive graph forms which constitute the ‘fine’ inventory did not all develop at the same time and at the same pace. For example, the rhomboid *w* with a slanted line

[292] See §4.1.3.1, Fig. 4.5 below.

first appears in generation 4 and it is consistently used in most texts already starting from generation 6,[293] whereas the *r* with vertical hooks is first attested in generation 9 but it is not employed consistently before generation 12, starting from which it is found in virtually all texts.[294]

Now I will describe the development of the graph forms of *b*, *r*, *k*, *ḥ*, *ḍ* and *w*. Table 4.1 shows a selection of the attested graph forms across generations. While the Table does not show drawings of every single graph, I have tried to include all graph forms which are representative of the type of variation found in each generation.

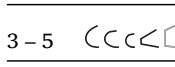
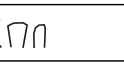
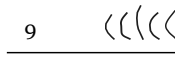
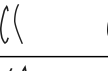
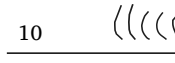
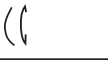
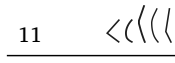
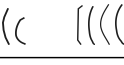
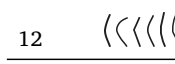
Gen.	*b*	*r*	*k*	*ḥ*	*ḍ*	*w*
3 – 5						
6 – 7						
8						
9						
10						
11						
12						
13						

Table 4.1: Graph forms of b, r, k, ḥ, ḍ, and w across generations

4.1.3.1 *b*

In order to study the development of the forms of *b* across generations, I have calculated its height to width ratio in each 'measurable' instance,[295] and included only texts whose genealogies reach at least the papponym. This resulted in the measurement of 534 *b*'s in total.[296] In order to simplify the description and visualisation of all the ratios, I have subdivided them into 10 ranges of compression (R), with R 1 representing the lowest compression and R 10 the highest:

- R 1 = 1 to 2.50;

[293] See §4.1.3.6 below.

[294] In the 12th and 13th generation, there are only occasional attestations of other forms (see §4.1.3.2 below).

[295] I.e. known from a good-quality picture taken frontally, see the remarks in §4.1.2 above.

[296] These are, per generation: 15 from gens. 4 – 5; 25 from gens. 6 – 7; 24 from gen. 8; 96 from gen. 9; 97 from gen. 10; 99 from gen. 11; 112 from gen. 12; 62 from gen. 13. Note that the first group has not measured *b*'s from gen. 3, as in the only possible attestations known from pictures (KRS 485/3?, KRS 1912/3? and KRS 1397/3?) the genealogies all stop at the patronym.

- R 2 = 2.51 to 4;
- R 3 = 4.01 to 5.50;
- R 4 = 5.51 to 7;
- R 5 = 7.01 to 8.50;
- R 6 = 8.51 to 10;
- R 7 = 10.01 to 11.50;
- R 8 = 11.51 to 13;
- R 9 = 13.01 to 14.50;
- R 10 = > 14.50.

The attested ranges of compression as well as the single measurements can be found in the Appendix, arranged by generation.[297] Fig. 4.5 shows the compression averages of each generation, while Table 4.2 displays their attested ranges (considering only more than two attestations).

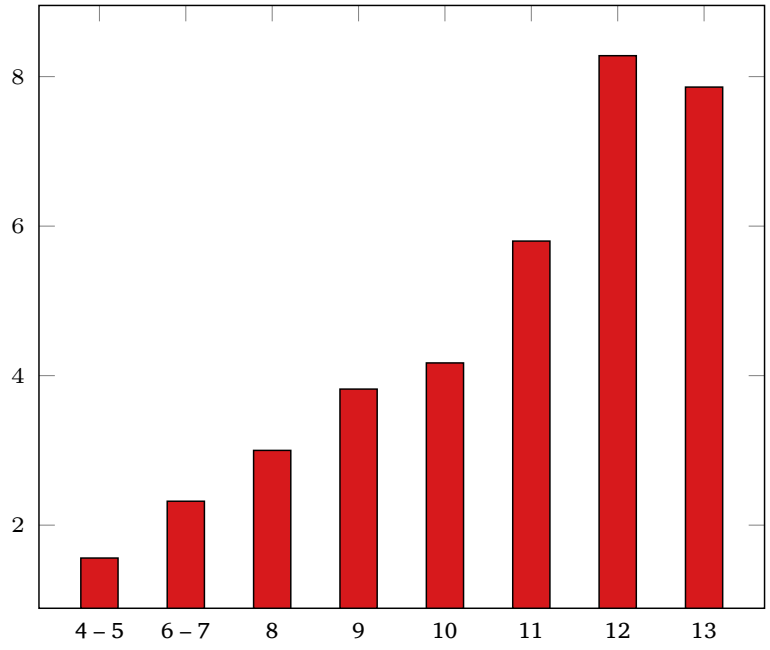


Figure 4.5: Averages of b’s h:w ratios per gen. (x-coords. = gens.; y-coords. = averages of b’s h:w-ratios)

[297] See §A.3.1 and §A.3.2.

	R 1	R 2	R 3	R 4	R 5	R 6	R 7	R 8	R 9	R 10
Gens. 4 – 5	✓									
Gens. 6 – 7	✓	✓								
Gen. 8	✓	✓	✓							
Gen. 9	✓	✓	✓	✓						
Gen. 10	✓	✓	✓	✓	✓					
Gen. 11	✓	✓	✓	✓	✓	✓				
Gen. 12		✓	✓	✓	✓	✓	✓	✓	✓	
Gen. 13			✓	✓	✓	✓	✓		✓	✓

Table 4.2: Attested ranges per generation (considering only > 2 instances)

In the 'common' stage, the *b* is mostly a deep curve ⊂ , but square and pointed forms are also attested ⊏ < . The first two *b*'s of KRS 1479/5 (see Fig. 4.2(b) above) are pointed, while the last three instances are turned by 90° and have rather long legs ∩ ∩ .[298] All the measured *b*'s at this stage fall within R 1 of compression.[299]

In the transitional stage, we find, in the beginning – i.e. generations 6-7 – most *b*'s within R 1, 5 *b*'s within R 2, and only one within R 3.[300] But starting from generation 8, we have more and more *b*'s whose forms are shallow curves ⟨ or obtuse angles with the two sides of the angles of varying length ⟨ ⟨ ⟨ . The number of *b*'s within R 1 decreases, and we see that greater proportions of *b*'s belonging to higher ranges start to appear. By generation 11, most *b*'s are within R 3, followed by R 2, R 4, R 5 and R 1, and with scattered instances from the higher ranges until R 10.[301] As shown in Fig. 4.5, in the transitional stage the average compression of the *b*'s follows an almost linear progression which stabilizes in the late 'fine' stage – this is also the stage in which most *r*'s take the typical 'fine' form with vertical hooks. Moreover, Table 4.2 shows that generations 12 and 13 attest the highest ranges, with generation 13 attesting *b*'s up to the maximal range, i.e. R 10. At the same time, generation 12 attests only one *b* from R 1 and 6 from R 2, while generation 13 attests no *b*'s from R 1, and only 2 from R 2.[302] But at this stage the other lower ranges are nevertheless well attested, showing that the main difference with previous generations is the very attestation of high ranges which are not found earlier. KRS 1872/13 exhibits, in addition to 'regular' curved/pointed compressed forms, a new form composed of a vertical line with a shallow curve attached on top ⟨ .

[298] Unlike the 90° *ḥ*, present in the same text, this 90° form of the *b* will not become part of the 'fine' inventory. Cf. also the 90° *m* attested in generation 6 (see Fig. 4.3(a) above).

[299] See Table A.14 and Fig. A.19 in the Appendix.

[300] See Fig. A.20 in the Appendix.

[301] For more details, see Fig. A.24 in the Appendix.

[302] See Figs. A.25, A.26 in the Appendix.

4.1.3.2 *r*

In the 'common' stage, the *r* is either a shallow curve or a straight line with perpendicular/slanting short arms . 'Common' forms are the norm also at the beginning of the transitional stage from generations 6 to 9, with only one text (BES15 191/9) taking the 'fine' form – this text exhibits two rather compressed and elongated *b*'s very similar to the curve of the *r*, with h:w ratios amounting to 10 and to 6.47 respectively. From generation 10 onwards, the 'fine' hooked forms of *r* appear increasingly more often.

It is possible that the vertical hooks of the 'fine' form of *r* developed to distinguish the shallow curve variant of *r* from the 'fine' form of the *b*, which is also a shallow curve, and whose average compression starkly increased precisely in those generations – 9 to 12 – in which the hooked form becomes progressively more widespread. Table 4.1 shows that, starting from generation 9, some of the more compressed and elongated forms of the *b* are very similar to the shallow curve form of the *r*. In Is.H 847/10, one can notice that the *b*'s and the *r*'s are almost identical shallow curves. The h:w ratios of the *b*'s are 4.38 – 4.67 – 4.14 – 3.86, while the ratios of the *r*'s are 4.38 – 4.14 – 4.6 – 2.8.[303] A different situation is found in KRS 2993/10 (see Fig. 4.3(b) above), which attests both 'common' and 'fine' forms within the same text: 2 out the 6 *r*'s have vertical hooks,[304] while the other *r*'s are simply shallow curves. In this text, the *b*'s are in any case further distinguished from the *r*'s by being smaller curves, as is usually the case in the 'common' script, in which the *b* is usually distinguished from the curved form of the *r* by being a smaller and deeper curve.

In the late 'fine' stage, virtually all *r*'s take the hooked form. In the 12th generation, among 20 texts with *r*'s, 17 have exclusively hooked *r*'s.[305] In the 13th generation, 11 texts containing *r*'s are attested, of which only one (ZeGA 10/13) has *r*'s in the form of a vertical line with short slanting open arms .

While it would seem that the 'fine' hooked shape of the *r* developed to distinguish it from the increasingly compressed *b*, one should keep in mind that, beside the shallow curve form, the other 'common' variant of the *r* is the vertical line with two protruding hooks . This graph form, which in fact rarely appears in texts from the late 'fine' stage as well (cf., e.g., ZeGA 10/13), would have represented a viable alternative to the shallow curve shape, as it is both compressed and clearly distinct from the *b*.

[303] Also in Is.L 33/11, the *r* is a curve and it is not shallower than the *b*, but very similar in form and only distinguished from it because slightly bigger.

[304] These are the *r* of the great great great grandfather *s*^{1}*wr* and the *r* of *s*^{1}*fr* 'writing'.

[305] Non-'fine' forms occur in Is.H 891/12, where the *r* is a shallow curve very similar to the *b*'s, while in KRS 132/12, all but one *r* – a very shallow curve – have vertical hooks. In BES15 799/12, only the last *r* is a vertical line with open arms, but in the other texts by the same author (KRS 1885, 1886), all *r*'s are hooked.

4.1.3.3 *k*

In the 'common' stage, we have some of the typical 'common' forms, e.g. WH 302/5? and WH 1711.2/5 . In Is.Mu 562/4? the arms are slanted and in WH 650/5 and KRS 1479/5 (see Fig. 4.2(b) above) we find more compressed forms of this variant . In KRS 907/5 (see Fig. 4.1(b) above), the *k* is formed as a shallow curve with a slanted protruding line .

In generations 6 – 7, only two *k*'s (both from generation 7) are attested . They are found in two texts by the same author *nhb bn kṯbt*.[306] Such forms are still transitional between the 'common' and the 'fine' one. But in Is.L 151/8, by the son of *nhb bn kṯbt*, the form of the *k* is already the typical compressed 'fine' form of a shallow curve with slanted line attached to one end , while in Is.Mu/8, by another author from the same generation, it is still transitional , and KRS 218/8 attests a further variant with a smaller body . Starting with generation 9, we only find 'fine' forms, both curved and pointed . Sometimes the slanting stroke is also curved or angled .

From generation 11 onwards, there are some instances of *k*'s further compressed to a straight line with a slanted stroke . AbSWS 18/13 (see Fig. 4.4(b) above) attests three different types of compression: the body of the first *k* is a straight line with a shallow curve on top , as in some late forms of the *b* (see above), the second one presents a pointed form with a hook , while the third is a straight line with a slanted stroke on top. The *k* in KRS 132/12 atypically takes a compressed fork form .[307]

4.1.3.4 *ḥ*

In the 'common' stage, we find 'common' forms , with one text (KRS 1479/5, see Fig. 4.2(b) above) already attesting the 'fine' pointed 90° form . From generation 6 onwards, most forms are 'fine'. Between generation 7 and 9 there are attestations of curved rather than pointed forms , which are found exclusively in hammered texts.[308] There are, however, hammered texts with pointed forms of *ḥ* as well.[309] In two instances from generation 9, both by the same author, the *ḥ*'s do not have the usual vertical stance , but they appear together with forms with a vertical stance.[310]

[306] These are Is.M 7/7 and Is.M 36/7.

[307] A similar form occurs in SESP.U 8/12, shown in Fig. 1.3(a), which is dated to the death of Agrippa (see §4.2 below).

[308] E.g. Is.L 132/7?; cf. the incised text Is.L 25/7, by the same author, where the *ḥ* is pointed.

[309] E.g. SESP.D 22/9.

[310] Cf. Is.M 300/9 and Is.M 349/9, by *ḥrb bn ḥny*, the first hammered and the second incised. In the writing style of this author, the *ḥ* of the name has a vertical stance, while the *ḥ* of the patronym lies horizontally.

4.1.3.5 *ḍ*

The 'common' stage attests exclusively the typical 'common' variants:  , but from generation 6 onwards, the 'fine' forms with slanted lines  appear in virtually every text.

4.1.3.6 *w*

Besides 'common' forms , in the 'common' stage we find also rhomboids with slanted lines  , as in the 'fine' script.[311] From the 6th generation onwards, similarly to *ḥ* and *ḍ* (see above), nearly every text attests 'fine' forms. In addition to the typical rhomboids with slanted lines  , we find also almond-shaped variants  and further compressed variants with different forms:  .

4.1.4 Notes on texts from later generations

While my analysis stopped at generation 13, I should like to briefly comment on some features which are found in texts from later generations of the *ḥmyn* sub-branch, but which are rare or absent in earlier texts within the same branch. AbWS 5/15 (Fig. 4.6(a)),[312] for example, exhibits one instance of completely straightened *r* with converging arms  [313] and two instances of *m* with an almond form ,[314] but the other instances of these and other graphemes take the regular non-straightened forms, as do all graphs in Is.H 214/15, which is from the same generation as AbWS 5/15.

Is.Mu 367/16 (Fig. 4.6(b)) is the latest text from the *ḥmyn* sub-branch which I was able to trace:[315] it exhibits consistently ultra-compressed forms. Some of the *b*'s are very shallow, almost straight lines  , the *r* is a straight line with two converging hooks  ,

[311] See Is.Mu 562/4?, KRS 1479/5 (see Fig. 4.2(b) above) and WH 650/5.

[312] Note that the genealogy of this text (*qlb bn ʾbkr bn qlb bn s²ḥm bn rgl bn ʿmd bn mlk bn qḥs² bn s¹wr bn ḥmyn*) omits 7th generation *ḥḍg*.

[313] It is the *r* contained in the phrase *h-dr* 'at this place'.

[314] See the *m* in the word *mʿzy* 'goats' and *bʿls¹mn* (deity name); this study did not discuss the development of the *m*, but it will suffice here to remark that in previous generations it is mainly attested with a curved/obtuse angle form, the only exception being KRS 1867/12, which attests the same ultra-compressed almond form found in AbWS 5/15. In the other late 'fine' texts, however, – e.g. ZeGA 10/13 – this same almond form usually indicates the *g* rather than the *m*.

[315] The genealogy goes: *lbʾt bn ṣʿd bn ʾs¹ bn qlb bn s²ḥm bn ʿmd bn mlk*, overlapping with the genealogies of AbWS 5/15 *qlb bn ʾbkr bn qlb bn s²ḥm bn rgl bn ʿmd bn mlk bn qḥs² bn s¹wr bn ḥmyn*, AbSWS 84/12 *s²ḥm bn rgl bn ʿmd bn mlk* and KRS 1333/12 *mlk bn rgl bn ʿmd bn mlk bn qḥs² bn ḥḍg bn s¹wr bn ḥmyn*, although the genealogy of Is.Mu 367/16 omits 11th generation *rgl* (see the tree in the Appendix, Fig. A.12). It is technically possible that *lbʾt* was a 15th rather than a 16th generation author, whose branch split at 10th generation *ʿmd*, and who shared only by coincidence the ancestors *qlb bn s²ḥm* with the texts mentioned above, but this option seems to me the less likely one. For a comparable situation, cf., e.g., the genealogy of ASDD 301 = ZSSH 5/16 and the discussion in §4.2.1 below.

and the *m* takes the elongated almond form . A feature which seems peculiar to this text is the *k* as a straight line with its slanting stroke simplified to one hook .

(a) AbWS 5/15 (b) Detail of Is.Mu 367/16

Figure 4.6: Two texts from later generations (Photos: OCIANA)

While in the *ḥmyn* sub-branch this text is the latest in terms of generation that I am aware of, without further texts from the same or later generations to compare this text to, we do not have sufficient evidence to interpret it as the end-stage of a progressive development towards increasing compression. Its features could in fact be equally the result of the preferences of this author, who for some reasons decided to consistently exaggerate the typical 'fine' stylistic traits of compression.

4.2 The chronology of Safaitic writing among the *ḍf*

The attestation of texts from different generations of the lineage of *ḍf* provides a basic chronological framework for the Safaitic writing practice among members of this lineage. In this Section, I will first employ the attested generations to calculate both a minimal and a maximal time-span for writing among the *ḍf*. Subsequently, as there are six inscriptions mentioning *grfṣ* 'Agrippa' which can be placed within three branches of the *ḍf* lineage-tree, I will use them to anchor the information provided by the generations to chronologically fixed points. This way, I will be able to estimate a *terminus ante quem* (*TAQ*) and a *terminus post quem* (*TPQ*) for Safaitic writing among the *ḍf* based on the distance of the earliest and latest securely attested generations from the 'Agrippa'-texts in the tree.

I should stress that it is not my aim to date texts on the basis of their generation, as this would be an impossible task. Indeed, the actual time-span between two texts at one generation of distance from each other rests on three unknown variables: 1) the age of the father at writing; 2) the age of the son at writing; 3) the age of the father at his son's birth. Moreover, we know that brothers could independently write and leave

several texts each[316] and we have also prolific authors who clearly did not write all of their texts in the same year.[317] This implies that we should expect a variety of both age and date of writing within texts by different authors from the same generation as well as in different texts by the same authors.

Thus, the scope of this study is different, namely to use the attested generations in order to date the presence of literacy. For this task, variables 1) and 2) become irrelevant, as we are dating the ability to write, not when the texts were carved. Since we cannot dispose of variable 3), however, we need to posit an artificial generation length: I will use 20 years because it is the minimal possible average time-frame which one could expect. While a 20 years generation pace is with certainty unrealistic, as we can surely expect that authors had children also at a later age, if we want to determine a minimal time-span of writing within which we can be sure that literacy was employed, a 20 years time-unit provides a good basis, precisely because it is very likely that the mean was higher. For the calculation of the maximal time-span of writing, on the other hand, I will use 40 years, which is also unrealistic, but for the opposite reason, i.e. the average is most likely to be lower.

The calculations of the absolute dates related to these time spans will be based on the three lineage sub-branches with the texts referencing 'Agrippa'. These are:

- *ġḍḍt bn ʾnḍt bn ws²yt bn ḍf*, here abbr. to '*ġḍḍt* branch';
- *zkr bn rfʾt bn ws²yt bn ḍf*, here abbr. to '*zkr* branch';
- *ṯḥrt bn hws¹r bn bʾs² bn ḍf*, here abbr. to '*ṯḥrt* branch'.

The first two branches share the 2nd generation ancestor *ws²yt*, while the third is an independent branch splitting from *ḍf* at 2nd generation *bʾs²*.[318] I have searched through the OCIANA for texts from the earliest and the latest attested generations in each sub-branch. I have also checked the other sub-branches and have not found any significant difference, as they all seem to be within the range of the sub-branches studied here.

In identifying texts from the earliest generations, we have the problem that most of the possible candidates indicate only the patronym and it is thus impossible to be sure about their identity. Even though such an identification is still possible, or, in some cases, even likely, it cannot be proved. Thus, I will focus on the earliest *securely* attested generations – i.e. from texts with genealogies going at least as far up as the papponym – and, only by way of comparison, show how much bigger the span would have been if candidates from earlier generations were considered.

For the first task, which is calculating the minimal and the maximal time-span of writing, the number of attested generations within each sub-branch will be our only needed information, while for the second task, which consists of providing the *TAQ* and the *TPQ* for Safaitic writing, the dating will rest on the 'Agrippa'-texts. Six texts mentioning *grfṣ* 'Agrippa' can be located in the *ḍf* lineage-tree:

[316] Cf., e.g., the 7th gen. brothers *ḥs²s²* and *ḥḍg* (see Fig. A.6 and Table A.3).

[317] Cf. HSNS 4/13 and HSNS 1/13, by the same author, dated to the appointment and death of Agrippa respectively (see below).

[318] See the trees in Figs. A.14 – A.16 in the Appendix.

- Two texts – HSNS 4/13 and HSNS 1/13 – by the same author, who belongs to the *ġḍḍt* branch. They are dated to 'the year Agrippa was appointed' and 'the year Agrippa died' respectively;[319]
- Two texts – HSNS 5/11 and SESP.U 8/12 – by members of the *zkr* branch, dated to 'the year of king Agrippa son of Herod'[320] and to 'the year Agrippa died' respectively.[321] The two authors are first cousins once removed (see the tree in Fig. A.15);
- Two texts – KRS 1023/14 and KRS 1039/15 – by authors of the *ṯḥrt* branch, who state that they 'rebelled against king Agrippa';[322] As in the *zkr* branch, the two authors are first cousins once removed (see the tree in Fig. A.16).

I will use these dated texts as points of reference to calculate a *TAQ* and a *TPQ* for the earliest and latest attested generations within the three branches involved. For this task, the artificial generation unit is again the minimum of 20 years, since it is, as explained above, an unrealistically rounded down time-frame. Thus, we can be sure that literacy was employed within the calculated chronological limits, although it is highly probable that it was also used earlier and later.

Since the authors could have meant either Agrippa I (37 – 44 AD) or Agrippa II (53 – (?)92/93 AD),[323] both options will be kept in consideration while establishing the

[319]The full texts read: HSNS 4/13 *l qḥs² bn s²mt bn zkr w ḥll h-dr s¹nt ngy grfṣ* 'By Qḥs² son of S²mt son of Zkr and he camped here in the year Agrippa was appointed'; HSNS 1/13 *l qḥs² bn s²mt bn zkr bn ġyrʾl bn zkr w ʾs²rq l-mdbr s¹nt myt grfṣ* 'By Qḥs² son of S²mt son of Zkr son of Ġyrʾl son of Zkr and he migrated to the inner desert the year Agrippa died' (see OCIANA).

[320]By 'son of Herod', i.e. *bn hrdṣ*, the author probably meant that Agrippa belonged to the Herodian family, as neither Agrippa I or II had Herod as father (see the Herodian family tree in Schürer 1973: 614).

[321]The full texts read: HSNS 5/11 *l lbʾt bn ḫṭs¹t bn flṭt bn bhs² bn ʾḏnt bn ʾs¹lm bn zkr bn rfʾt bn ws²yt bn ḍf bn ʿgd bn tʿwḏ w ḥl dr s¹nt mlk grfṣ bn hrdṣ w wgd ʾṯr ʾḫwl-h ʾl ʾs²ll tm w grmʾ w ʾḥwḍ w zbd f ngʿ w h ds²ry w lt ġnmt l-ḏ dʿy w lm yḫbl s¹fr* 'By Lbʾt son of Ḫṭs¹t son of Flṭt son of Bhs² son of ʾḏnt son of ʾs¹lm son of Zkr son of Rfʾt son of Ws²yt son of Ḍf son of ʿgd son of Tʿwḏ and he was here in the year of king Agrippa son of Herod and he found the traces of his maternal uncles [of] the people of ʾs²ll, Tm and Grmʾ and ʾḥwḍ and Zbd so he grieved in pain and O Ds²ry and Lt [grant] booty to whoever leaves [the inscription intact] [inflict] suffering on him who destroys [the inscription]'; SESP.U 8/12 *l ʾnʿm bn grmʾl bn ʾnʿm bn flṭt bn bhs² bn ʾḏnt bn ys¹lm bn rqlt bn zkr [[]] bn rfʾt bn ws²yt bn ḍf bn gnʾl bn bqr bn rh[[y]]w s¹nt myt grfṣ ḥ-mlk w ʿwr ḏ yʿwr* 'By ʾnʿm son of Grmʾl son of ʾnʿm son of Flṭt son of Bhs² son of ʾḏnt son of Ys¹lm son of Rqlt son of Zkr son of Rfʾt son of Ws²yt son of Ḍf son of Gnʾl son of Bqr son of Rhyw the year king Agrippa died. And blind whoever scratches out the inscription' (see OCIANA). Note that the genealogy of HSNS 5/11 skips 5th generation *rqlt* (see the tree in Fig. A.15), while SESP.U 8/12 spells 6th generation *ʾs¹lm* as *ys¹lm*.

[322]The full texts read: KRS 1023/14 *l ʿlm bn ṣʿb bn grmʾl bn ḏʾb w mrd ʿl-ḥ-mlk grfṣ ks¹r {ḥ-}s¹l{s¹}[lt]* 'By ʿlm son of Ṣʿb son of Grmʾl son of Ḏʾb and he rebelled against king Agrippa to break {the bonds}'; KRS 1039/15 *l ʿlm bn ẓnʾl bn ʿlm w mrd ʿl-ḥ-mlk grfṣ f ḥ lt fṣyt ks¹r ḥ-s¹ls¹lt* 'By ʿlm son of Ẓnʾl son of ʿlm and he rebelled against king Agrippa and so O Lt [grant] deliverance of the breaker of the chain' (see OCIANA). Note that, as suggested by Macdonald, the verb *mrd* 'to rebel' could be perhaps interpreted as 'to mutiny', perhaps from an auxiliary military troop drawn from the nomads (Macdonald 2014:162).

[323]See King 1990b:62; Macdonald 1995a:289–290; Schürer 1973:442–454, 471–483. In Is.H 763 – a 'fine' text by an author who identified himself as belonging to the *ʾl fṣmn* – *grfṣ* could have only referred to Agrippa II, as the text is dated to the year 18 of Agrippa and Agrippa I ruled only for a much shorter time (Macdonald 2014:152). Note that even though Agrippa II was granted the kingdom of Chalcis in 50

chronology of the respective branches. Unlike the estimation of the minimal/maximal time-span of writing above, the calculation of the *TAQ/TPQ* will provide – and is based on – actual dates. Thus, for this task I will artificially posit that authors always wrote the texts in question at the age in which their son was born, which in this study is the minimum average of 20 years. In addition, the following choices were made for the individual branches:

- In the *ġḍḍt* branch, in which the author is the same in both dated texts – they are dated to the first regnal year and to the death of Agrippa respectively –, generation 13 will be anchored to the date in which Agrippa became king, rather than to his death, since the age of the author was more likely to be proximate to 20 years when he carved the earlier text;
- The *zkr* branch is the most unproblematic, as it attests one text from the 11th generation and one from the 12th generation, the first dated to the year Agrippa became king, while the second is dated to Agrippa's death. Thus, the text from the earlier generation will be used to calculate the *TAQ*, while the other one will be the reference for the *TPQ*;
- In the *ṯḥṛt* branch, both generation 14 and 15 present texts referring to a rebellion against Agrippa, whereby the 14th generation author is the first cousin once removed of the 15th generation one. In this case, although we can imagine that the two authors, who were also close relatives, referred to the same event,[324] we cannot know at which point in the reign of Agrippa the rebellion took place. Since the scope of calculating *termini* is that we should aim at a *minimal* secure time-frame, I will anchor generation 14 to the latest possible date in which the rebellion could have happened, i.e. the year of the death of Agrippa, and use it as the reference to calculate the *TAQ*. By reverse, generation 15 will be anchored to the earliest possible date of the rebellion – the first year of Agrippa's reign –, but it will be employed as point of reference to determine the *TPQ*.

Within each branch there are several further sub-branches, and in considering texts from different generations it is not always possible to compare authors from the same exact branch-line. In the *ġḍḍt* branch, the latest authors belong to the 15th generation. However, the 13th generation 'Agrippa'-texts, on which the dating of these late texts is based, do not belong to the same exact branch, but split further up at 7th generation *s*^{1}*b* (see the tree in the Appendix, Fig. A.14). Similarly, the sub-branch of the latest (14th generation) authors in the *zkr* branch splits from the one of the 'Agrippa' texts at 7th generation *ʾḏnt* (see the tree in Fig. A.15).

AD, it is only in 53 AD that he was given the tetrarchy of Philip (Schürer 1973:472) which comprised the areas of the Ḥawrān most proximate to the territory of our nomads. Therefore, I here take 53 as the first year of his reign.

[324] Note also that the two texts are from the same edition and that they were assigned proximate numbers (i.e. KRS 1023/14 and KRS 1039/15). Therefore, we can even assume that they were found in the same location and that they were perhaps carved at the same time.

However, any discrepancy between the branches with the dated texts and the ones with the latest generations are not significant for our calculations, as they are based on the unrealistically rounded-down minimum of 20 years anyway. In other words, while such splits may have caused some chronological discrepancies which we cannot control for, the method here employed provides dates which are so rounded down that we can deem the consequences of such splits to be negligible for our purposes.

Finally, I shall briefly explain two minor caveats on some of the texts employed for calculation. The first caveat regards the texts I used as point of reference for the earliest generation with PN *bn* PN genealogies in the *ṭḥrt* branch. Such texts do not come from *ṭḥrt*'s direct lineal branch, as they are by *ṭḥrt*'s uncles.[325] However, this minor discrepancy has no impact at all on the calculation of the secure minimal time-span and TAQ, which are based on WH 1711.2/5, a 5th generation text by *ṭḥrt*'s son *kdr*.

The second caveat concerns the generation of ASFF 301 = ZSSH 4/15 and of KRS 1982/15, the two examples of latest texts from the *ġḍḍt* branch. The genealogy of ASFF 301 = ZSSH 4/15 goes *rmzn bn s¹krn bn rmzn bn qdm bn rmzn bn mfny bn nʿmn bn whb bn s¹b*, and through the overlapping genealogies of several texts, it seems that *rmzn* was a 15th generation author.[326] However, another group of texts suggests that there could be an extra ancestor – *rmzn* – between *mfny* and *nʿmn*,[327] implying that the genealogies of the first group would reflect a 'shortened' form of the latter group, i.e. omitting 10th generation *rmzn*.[328] Following this interpretation of the genealogies, ASFF 301 = ZSSH 4/15 would be a 16th rather than as a 15th generation text, and one would have to take KRS 1982/15 *qdm bn ghm bn qdm bn qḏy bn qdm bn mfny* as a further instance of 16th generation text as well, as it belongs to a branch splitting at *mfny*.[329] However, since there is a possibility that these two different versions were both accurate and reflected two separate branches splitting at 9th generation *nʿmn* and sharing the sequence *rmzn bn mfny* – I have decided to follow the genealogy as it is shown in ASFF 301 = ZSSH 4/15 and in several other texts, and therefore to take generation 15 rather than 16 as the latest attested generation for this branch. This choice seems also the most cautious

[325] This of course only in case their identification is correct, as they only indicate the patronym. The texts are: AWS 118/3?, KRS 1912/3? and WH 744.1/3?, by *s²wʾ bn bʾs²*, and KRS 1397/3?, by *ḫṭmt bn bʾs²*; see the tree in Fig. A.16 and Table A.11 in the Appendix.

[326] I thank Michael Macdonald for pointing this out to me; cf. AWS 200/12 and C 2471/12, both with *rmzn bn mfny bn nʿmn bn whb bn s¹b*; HNSD 166/12 *qḏy bn qdm bn mfny bn nʿmn bn whb bn s¹b bn ʿḏrʾl bn bʿḏrh bn ġḍḍt*; KRS 338/11 *tm bn mfny bn nʿmn bn whb bn s¹b*; KRS 344/12 and KRS 352/12, both with *qḏy bn qdm bn mfny bn nʿmn bn whb*; KRS 350/13 *qdm bn qḏy bn qdm bn mfny bn nʿmn bn whb bn s¹b*; KRS 1253/14 *tm bn qdm bn s¹ḫr bn qdm bn mfny bn nʿmn bn whb*; WH 248/12 *tm bn s²ḥl bn tm bn mfny bn nʿmn bn whb*; WH 792/12 *ʾs¹ bn s²ḥl bn tm bn mfny bn nʿmn bn whb bn s¹b bn ʿḏrʾl bn ġḍḍ bn ʾnḍt*.

[327] Cf. AWS 171/11 *mfny bn rmzn bn nʿmn bn whb bn s¹b bn ʿḏrʾl bn bʿḏrh*; CSNS 997/12 and KRS 1028/12, both with *rmzn bn mfny bn rmzn bn nʿmn bn whb*; WH 54/12 *rġḍ bn mfny bn rmzn bn nʿmn bn whb*; C 1745/12 *s¹ḫr bn mfny bn rm{z}{n} bn n[ʿ]mn*; HaNSB 229/12 and SIJ 815/12, both with *ḥny bn mfny bn rmzn bn nʿmn bn whb bn s¹b*.

[328] This type of omissions is a well attested phenomenon in texts from late generations (see §A.1).

[329] One of the texts showing that he belongs to that branch is KRS 350 *qdm bn qḏy bn qdm bn mfny bn nʿmn bn whb bn s¹b* (and note that this is one of the genealogies omitting *rmzn*); see the tree in Fig. A.14 and Table A.9 in the Appendix.

one considering its use, which is calculating the minimal secure time-span as well as the TPQ.

Having in mind all the relevant choices and caveats presented above, Table 4.3 shows the calculations of the minimal time span, *TAQ*, and *TPQ*, for writing among the *ḍf* in three lineage sub-branches. For the calculations of *TAQ* and *TPQ*, I used as a point of reference both Agrippa I and Agrippa II. The calculations were made according to the earliest attested generation with PN *bn* PN genealogies as well as according to the earliest *secure* generations, i.e. using texts with genealogies showing at least the papponym. In the following, I shall discuss the results.

4.2.1 Time-span of Safaitic writing among the *ḍf*

It appears that there are no stark discrepancies in the calculated time-spans of the three branches. If we consider only the earliest securely attested generations, the *zkr* and the *ṯḥrt* branches are the ones attesting the broadest generations ranges: the *zkr* branch attests 10 generations, while the *ṯḥrt* branch attests 11 generations. The *ġḍḍt* branch, on the other hand, attests only 8 generations. With a minimal generation average of 20 years, their minimal time-spans are 160 (*ġḍḍt*), 200 (*zkr*), and 220 (*ṯḥrt*) years. Thus, the longest secure minimal time-span of Safaitic writing among the *ḍf* is 220 years, while the maximal secure time-span would be, taking as an average generation period 40 years, 440 years. By accepting less secure attestations of earlier generations, in the *ġḍḍt* branch the number of generations would increase to 13, which would yield a span of 260 years with the minimal 20 years generation average, and a span of 520 years with the maximum average of 40 years. The same exact numbers would be obtained in the *ṯḥrt* branch, where we would also have a span of 13 generations, while in the *zkr* branch we would gain a 12 generations span, i.e. a minimal span of 240 years and a maximum span of 480 years.

4.2.2 *TAQ* and *TPQ*

As shown in Table 4.3, the calculations of the *TAQ* and *TPQ* in the three branches yield very similar dates:

TAQ The secure dates of the *TAQ* are, according to Agrippa I, between the end of the II c. and the beginning of the 1st century BC, while, according to Agrippa II, they are all at the beginning of the 2nd century BC. However, if we consider less secure attestations of earlier generations, the *TAQ* can be pushed back to the beginning of the 2nd century BC (see especially the *ġḍḍt* branch).

TPQ Unlike the *TAQ*, whose calculation is based on several generations before Agrippa, the results of the *TPQ* are less telling, as they are based on merely one to two generations of distance from the dated texts, hence all oscillating around the middle/end of

ḏf's sub-branch	Earliest generation with PN *bn* PN genealogy	Earliest secure generation (at least PN *bn* PN *bn* PN genealogy)	Latest generation	Minimal time span of writing	Dated generation	*TAQ* acc. Agrippa I (37 – 44 AD)	*TAQ* acc. Agrippa II (53 – 93 AD)	*TPQ* acc. Agrippa I (37 – 44 AD)	*TPQ* acc. Agrippa II (53 – 93 AD)
ġḏḏt bn ʾnḏt bn ws²yt bn ḏf	2 (WH 884)	7 (Is.Mu 354, KRS 563, SESP.G 1)	15 (ASFF 301 = ZSSH 4, KRS 1982)	With 8 generations (7 to 15): 8 × 20 = **160 yrs.** With 13 generations (2 to 15): 13 × 20 = 260 yrs.	13 (Two texts by the same author: HSNS 4 *s¹nt ngy grfṣ*; HSNS 1 *s¹nt myt grfṣ*)	With 7th generation as earliest: ((13 – 7) × 20) – 37 = **83 BC** With 2nd generation as earliest: ((13 – 2) × 20) – 37 = 183 BC	With 7th generation as earliest: ((13 – 7) × 20) – 53 = **67 BC** With 2nd generation as earliest: ((13 – 2) × 20) – 53 = 167 BC	((15 – 13) × 20) + 37 = **77 AD**	((15 – 13) × 20) + 53 = **93 AD**
zkr bn rfʾt bn ws²yt bn ḏf	2 (WH 884)	4 (C 1483)	14 (KRS 1131, 1283, 1284, 2301, 1408, 1409)	With 10 generations (4 to 14): 10 × 20 = **200 yrs.** With 12 generations (2 to 14): 12 × 20 = 240 yrs.	11 (HSNS 5 *s¹nt mlk grfṣ bn hrdṣ*) 12 (SESP.U 8 *s¹nt myt grfṣ*)	With 4th generation as earliest: ((11 – 4) × 20) – 37 = **103 BC** With 2nd generation as earliest: ((11 – 2) × 20) – 37 = 143 BC	With 4th generation as earliest: ((11 – 4) × 20) – 53 = **87 BC** With 2nd generation as earliest: ((11 – 2) × 20) – 53 = 127 BC	((14 – 12) × 20) + 44 = **84 AD**	((14 – 12) × 20) + 93 = **133 AD**
ṯḥrt bn hws¹r bn bʿs² bn ḏf	3 (AWS 118, KRS 1912, WH 744.1, KRS 1397)	5 (WH 1711.2)	16 (SESP.U 22)	With 11 generations (5 to 16): 11 × 20 = **220 yrs.** With 13 generations (3 to 16): 13 × 20 = 260 yrs.	14 (KRS 1023 *mrd ʿl-mlk grfṣ*) 15 (KRS 1039 *mrd ʿl-mlk grfṣ*)	With 5th generation as earliest: ((14 – 5) × 20) – 44 = **136 BC** With 3rd generation as earliest: ((14 – 3) × 20) – 44 = 176 BC	With 5th generation as earliest: ((14 – 5) × 20) – 93 = **87 BC** With 3rd generation as earliest: ((14 – 3) × 20) – 93 = 127 BC	((16 – 15) × 20) + 37 = **57 AD**	((16 – 15) × 20) + 53 = **73 AD**

Table 4.3: Calculations of the time-frame of writing among the ḏf (with 1 gen. = 20 yrs.)

the 1st century AD and, only in one case (the *zkr* branch, acc. Agrippa II), the beginning of the 2nd century AD.

On account of these results, we can state that writing among the *ḍf* was no doubt employed between the beginning of the 1st century BC and the end of the 1st century AD, but most probably also earlier and later, also considering that the minimal secure time-span calculated above reached 200 years in the *zkr* branch and 220 years in the *ṯḥrt* branch.