CHAPTER 2

Script and Manners of Inscribing

The first of the key elements of Dadanitic inscriptions that were outlined in the Introduction is that of script itself, including the various manners of inscribing. In this chapter I will, therefore, focus on this aspect of the corpus. Starting with a brief introduction to the origins of the Dadanitic script and how it functions, the chapter continues with a discussion of the variation in letter shapes within the corpus, focusing on the form of *ṭ* and *ẓ*, as this is a point where my reading varies most from previous interpretations of the texts. This section will also include a general overview of the glyphs and a script table. In § 2 the different manners of inscribing will be introduced, which will later be an important variable in the analysis of variation conducted in Chapters 7 and 8. The chapter ends with a brief discussion of an alphabetic text in Dadanitic script, and its relation to the local writing culture.

Dadanitic is a South Semitic script. As noted in the Introduction, other members of the South Semitic script family are the Ancient South Arabian script, the other scripts termed Ancient North Arabian, and the Ethiopic syllabary. While they clearly belong to the same script family, the exact relationship between the different South Semitic scripts remains unclear (Macdonald 2008, 185; Al-Jallad 2015, 26). Dadanitic is a consonantal script, which only indicates long word-final vowels with *matres lectiones* (Drewes 1985, 167; but cf. Macdonald 2008, 186), a point I will return to in Chapter 4. It is one of the few ANA varieties to make consistent use of word dividers (Macdonald 2008, 186). There are a number of glyphs that occur in several variant forms. As discussed in the Introduction, I will follow Macdonald's proposal to consider the inscriptions from Dadan in the local script as one corpus (2000, 33), since he has convincingly shown that these variant forms were in use at the oasis in parallel with each other (see Macdonald 2010, 13–14; and 2015, 17–27 on the use of paleography).[1]

1 For a complete discussion on the use of paleography in the dating of the Dadanitic script see Chapter 1.

TABLE 2 Script table of Dadanitic based on Macdonald (2008, 187)

Transcription	Dadanitic glyph	Transcription	Dadanitic glyph
ʾ		*m*	
ʿ		*n*	
b		*q*	
d		*r*	
ḏ		*s*[1]	
ḍ		*s*[2]	
f		*ṣ*	
g		*t*	
ġ		*ṯ*	
h		*ṭ*	
ḫ		*w*	
ḥ		*y*	
k		*z*	
l		*ẓ*	

1 Glyphs and Their Variant Forms

Dadanitic preserved 28 of the 29 Proto-Semitic consonants, which are all represented by separate glyphs, only merging *s*[1] and *s*[3], as shown in Table 2.[2,3] There has been some debate about the existence of a separate glyph *ẓ*, which was originally read as *ṯ* (e.g., Grimme 1932, 753; Drewes 1985, 166; Abū l-Ḥasan 2002, 36), until Stiehl (1971, 5–7) argued, mostly based on etymological grounds, that the second glyph in the verb *h/ʾẓll* should be read as *ẓ* rather than *ṯ*.[4] Sima (1999, 96) finds further support for the existence of a separate glyph *ẓ* in the letter shapes themselves. This is particularly evident in the inscriptions AH 197 and

2 See the introduction to Chapter 4 for a more elaborate discussion on the interaction between the merging of the glyphs and their phonological representation.

3 An earlier script table by Macdonald (2000, 34) subdivides the letter shapes into Early and Late Dadanitic. However, since it is currently unclear how the different script types of Dadanitic should be subdivided, and whether a clear-cut division is even possible, I have adopted Macdonald's later (2008) script table which no longer makes such a distinction.

4 Her reading of the glyph was taken over by Van den Branden (1969), Müller (1982, 22), Scagliarini (1996), and Sima (1999) and has become the most generally accepted reading today. For a discussion on the history of the reading of *ẓ* in the Dadanitic inscriptions see Sima (1999, 96).

TABLE 3 *ṯ* and *ẓ* in AH 197 and JSLih 313

	ẓ	*ṯ*
AH 197		
JSLih 313		

TABLE 4 Variant forms of *ẓ* and *ṯ* based on the forms presented in Macdonald (2000, 34)

ẓ	**Early Dadanitic *ṯ***	**Late Dadanitic *ṯ***
		

JSLih 313, which contain both glyphs (Table 3[5]). Sima does caution that the *ẓ* is the glyph that occurs in most variant forms in the corpus, even though it is the rarest (Sima 1999, 96). In fact, however, it seems that *ṯ* is the form with most attested variation.

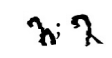
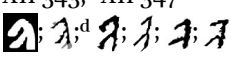
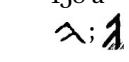
As shown in Table 4, the second form of both the *ẓ* and the *ṯ* termed 'Early Dadanitic' by Macdonald (2000, 34) are quite similar and often difficult to distinguish, as the sharpness of angles in letter shapes often varies per hand. Whenever there is ambiguity, the formula of a given inscription is usually taken to be leading in transcription. Compare, for example, the letter shapes in Table 5,[6] which are all found in *nṯr* inscriptions (see Chapter 3 for more on different genres and compositional formulae) and are all transcribed as *ṯ* in the OCIANA database.[7]

5 The glyphs in the table are tracings based on the photo of AH 197 and the photo of the squeeze of JSLih 313 available on OCIANA. The grey scale in the tracing of the *ṯ* from JSLih 313 indicates the degree of certainty of the reading, black lines being clearly visible, up to the lightest grey horizontal line across the top.

6 The examples of *ẓ* and *ṯ* on either extreme of the table are taken from the script table in Macdonald (2000, 34).

7 http://krcfm.orient.ox.ac.uk/fmi/webd#ociana (accessed 25-04-2018); now available at http://krcfm.orient.ox.ac.uk/fmi/webd/ociana.

TABLE 5 Glyphs read as *ṯ* in the *nṯr* inscriptions

Prototypical *ẓ* form:				**Prototypical *ṯ* form:**
AH 328; AH 332	AH 313; AH 336; AH 337; AH 323; AH 325; AH 338; AH 343;[a] AH 347[b]	JSLih 007 (b); JaL 158 a[c]	AH 312; AH 314; AH 318; AH 315	AH 331; AH 344
				

a The letter shape in this inscription is very similar in shape to AH 325: like a hooked Dadanitic *l* with a small leg coming out the left.

b The letter shape in this inscription is very similar to AH 338, with a curved leg coming out the horizontal shaft.

c There is only a copy available of both inscriptions. The images of both letters are cropped from the copies of the inscriptions available in OCIANA. JSLih 007 from Jaussen and Savignac (1909–1912, pl. XX); JaL 158 a from Jamme (1974, pl. 3).

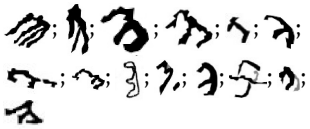
d The photograph available of this inscription is quite pixelated, making it impossible to tell whether the grey areas are intended or just damage. If there is indeed a line coming out to the left of the vertical shaft at the bottom, this glyph is closer to the example from AH 323.

e This is a tracing of the Iṯlib relief-style letter in AH 312; the *ṯ* in AH 314 and AH 318 is very similar in shape.

While the glyphs in columns four and five are clearly identifiable as *ṯ*, the glyphs in the second and third columns closely resemble the more ambiguously *ṯ* or *ẓ* variant. What they all have in common, however, is that they have the lower small leg added to the left of the main vertical shaft. Especially in the more curved forms of the *ẓ*/*ṯ*, it is easy to see how simply extending the curved back a little further would result in the more rake-like shape found in the examples in columns four and five of Table 5. It seems, therefore, that the glyphs interpreted as *ṯ* in AH 328 and AH 332, both with the leg extending from the right of the main vertical shaft, should probably be read as *ẓ* instead (Kootstra 2018b, 186–187).

For the reading of *ẓ* or *ṯ* in the *ẓll* inscriptions, OCIANA seems to have taken a similarly context-based approach. In it, two inscriptions are identified that very clearly contain the rake-shaped form as *ṯ* (AH 009.1; U 048) but others, with similar letter shapes, are transcribed as *ẓ* following the most common form of the formula. Similar to the overview of the *nṯr* inscriptions in Table 5, it seems that the letter shapes are best represented on a scale ranging from unambiguously *ẓ* in the left-most column of Table 6, through ambiguous forms in the second and third columns, to unambiguous forms of *ṯ* in columns four and five.

TABLE 6 The glyphs *ẓ* and *ṭ* in *ẓll* inscriptions

ẓ* in *ẓll		***ṭ* in *ẓll* but less certain**		***ṭ* in *ẓll* inscriptions**	**Identified as *ṭ* in *ẓll* by OCIANA**
AH 064; AH 165; AH 235; U 069; Al-ʿUḏayb 080	AH 010; AH 001; AH 100; Al-ʿUḏayb 044[a]	AH 070;[b] AH 006; AH 075; AH 125; U 028	Both in √ẒLL in AH 084; AH 074; U 125	AH 015; AH 109; AH 163; Al-ʿUḏayb 001; U 037.1; U 038; AH 032; AH 087.1; AH 138;[c] AH 142;[d] Al-ʿUḏayb 008; Al-ʿUḏayb 009;[e] Al-ʿUḏayb 088;[f] U 017.1	AH 009.1; U 048
					

a The top of the *ẓ* in Al-ʿUḏayb 044 is damaged, indicated by the grey area in the tracing.

b There is no photograph available of this inscription in OCIANA, this *ṭ* is taken from Abū l-Ḥasan's copy (1997, 468, pl. 10).

c There is no picture available of AH 138, the letter shape in the table is taken from Abū l-Ḥasan's copy (1997, pl. 16).

d The writing is not very clear in the photograph, but the three teeth coming out of the main body of the letter seem clearly visible.

e The letter is written across a break in the rock (the horizontal line running through the tracing), but the bottom curving back towards the writing direction is clear.

f The bottom of the letter is not very clear on the photograph as indicated in grey. It blends in with the previous letter.

I have chosen to interpret all forms in which the vertical shaft curves towards the writing direction as *ṭ*. Comparing the glyphs interpreted as *ṭ* in the *nṭr* inscriptions in the second and third columns in Table 5, to those in the second column in Table 6, it seems that the direction in which the main shaft is leaning may also be taken as distinctive (see Table 7 for comparison). In addition to the different direction of the slant of the letter, the glyphs interpreted as *ẓ* also seem to have a slight concave curve as opposed to the more general convex curve of the *ẓ*/*ṭ* glyph. It must be admitted, however, that the distinction is minimal, and some ambiguity remains. In truly ambiguous cases the formula of the inscription still plays a role in the interpretation of the glyph.

While the reading suggested in Table 6 favors the *ṭ* reading compared to the interpretation suggested by Macdonald (2000, 34), when we look at the distribution of *ẓ*/*ṭ* in the *ẓll* inscriptions using this stricter criterion for the inter-

TABLE 7 Comparing ambiguous *ẓ*/*ṭ* shapes from *nṭr* and *ẓll* inscriptions

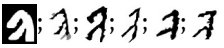
ṭ* in *nṭr	***ẓ* in *ẓll***
AH 313; AH 336; AH 337; AH 323; AH 325; AH 338; AH 343; AH 347	AH 010; AH 001; AH 100
	

TABLE 8 The glyph *ẓ* in graffiti

U 106	**Umm Darağ 06**	**U 078**
		

pretation of *ẓ*, the majority of *ẓll* inscriptions can still be interpreted as written with *ẓ* (179 with *ẓ* vs. 25 with *ṭ*).[8] Table 8 includes a small sample of *ẓ* in graffiti to show that a clearly distinguished *ẓ* is not a feature unique to monumental inscriptions.

Finally, beyond the variation just outlined, there is also more general variation of typical letter shapes. Descriptions of the variant letter shapes generally distinguish two main types. First, square, converging, triangular, and disconnected forms for glyphs with the basic shape  . Second, round and diamond-based forms for letters containing circular shapes such as and .[9]

8 In the case of the *nṭr* inscriptions, it may be argued that the glyphs in the first column of Table 7 (and second column in Table 5) could also be read as *ẓ*. Since the *nṭr* inscriptions form their own subgroup in the quantitative analysis in Chapters 7 and 8, this does not have strong implications for the analysis of the distribution of *ẓ* in relation to other features.

9 See Macdonald (2018) for the most recent discussion of variation in the Dadanitic letter shapes. Farès-Drappeau also treats the Dadanitic letter shapes extensively in her work (2005, 56–57 and 109–111), but cf. Macdonald (2015, 17–27; 2018) on using this variation for a paleographic and chronological interpretation.

2 Script Styles

Even though we cannot use the development of the letter shapes to make any reliable claims about the chronology of the inscriptions (Macdonald 2015, 17–18),[10] we can distinguish different manners of inscribing, some of which would have required more skill than others. I would suggest distinguishing four different manners of inscribing in the Dadanitic corpus, as noted in the introduction. This differentiates between inscriptions made in relief, deeply incised inscriptions, and those that were chiseled, or pounded. In the following I will outline each of these methods with explanatory examples from the corpus.

2.1 *Inscriptions in Relief*

One of the unique features of Dadanitic within the corpus of ANA inscriptions is the occurrence of inscriptions carved in relief (Macdonald 2008, 186). This technique was used to carve inscriptions on prepared slabs of stone, as in Figure 5, as well as on rock face, as in Figure 6. These inscriptions make regular use of word dividers (Macdonald 2008, 186) and are generally written from right to left (Macdonald 2010, 12).[11] Most examples carved using this technique are *ẓll* inscriptions and other dedicatory inscriptions.

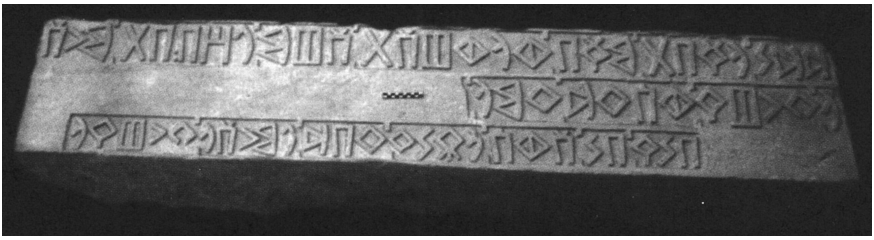


FIGURE 5 A dedicatory inscription in relief on a prepared stone (al-Ḫuraybah 12) PHOTOGRAPH AVAILABLE ON OCIANA

10 See Chapter 1, § 4 for a discussion of the use of paleography to create a relative chronology of the inscriptions.

11 Macdonald argues convincingly that unidirectional writing most likely developed as a result of writing on soft materials, which suggests the Dadanitic script was not only used to carve inscriptions on rock (2015, 13).

al-Ḫuraybah 12

ddn / ḥṯbt / mṯb / w ḥwḏ't / 'ḏm / l-ḏġbt / mr'//-h / f rḏy / w s¹ᶜd / ᶜm-hbny / bn / 'ws¹ / h- ṣnᶜ / ᶜbd / l-mr'-h / f rḏy-h
'Dadan dedicated the throne and offered the wheat(?) to *ḏġbt* her lord so may he favor and aid her people, *bny* son of *'ws¹* the mason made (it) for his lord so may he favor him'

FIGURE 6 A *ẓll* inscription in relief on rockface (U 001)
PHOTOGRAPH AVAILABLE ON OCIANA

U 001 *yhn' / w ġs¹m / bn//{y} / 'mtbᶜs¹mn / 'g//w / [h-]ẓll / l ḏġbt // [b-][k]hl / f rḏ -hm / w 'ḫr----*
'yhn' and ġs¹m {the (two) sons of} *'mtbᶜs¹mn* dedicated the *ẓll* to *ḏġbt* at {*khl*} so may he favor them and [their] {descendants} ...'[12]

When creating an inscription in relief, the mason cuts away the negative space around the letters rather than carving the letter itself into the rock. Lines are separated from each other by a horizontal line in relief. There are two (possibly three) inscriptions which might shed some light on the process of creating these inscriptions. JSLih 048 and 057 seem to show thin incisions outlining the letter shapes, possibly in preparation for the carving of the relief (see Figure 7).

12 See note 17 in the Introduction and Kootstra (2022) for a more recent and specific interpretation of the *ẓll* ritual.

FIGURE 7
An inscription seemingly in preparation for a relief (JSLih 048)
PHOTOGRAPH AVAILABLE ON OCIANA

JSLih 048 [----] // ---- *zdḏġ*[*bt*] ---- // ----*n/rfd* / *ḥ*----// ---- *ʾfkl* / *h*---- // ----*bh* / *w mr*---- // ---- {*b*}{*n*} / {*m*}{*r*}{*l*}---- // [----]*th*
'... *zdḏġbt* ... *rfd* ... priest {of} ...'

2.2 *Jabal Iṯlib Relief*

A separate style of relief seems to be found at Jabal Iṯlib and is associated with the inscriptions mentioning *nṭr* 'he guarded'[13] and several inscriptions mentioning only personal names on the same rock face.[14] Only a handful of inscriptions are attested in this style, and they seem to occur together at the same location. In this style the space cut away around the letters is bigger than in the standard relief style and the lines of writing are not separated by horizon-

13 For a discussion of the writing of *NṮR as *nṭr* see (Kootstra 2018b). Also, as previously mentioned, new evidence suggests the Dadanitic *nṭr* 'guarding' inscriptions found at the site may be connected to funerary structures on the outcrop (Nehmé et al. 2021, 14–19).

14 The inscriptions carved in this style are: AH 312; AH 313; AH 314; AH 315; AH 318; AH 317; AH 319; AH 321; AH 324.

tal lines in relief, but only by cut away space. The area that is cut away consists of little dents showing the impact of the individual strokes the author used to pound the rock.

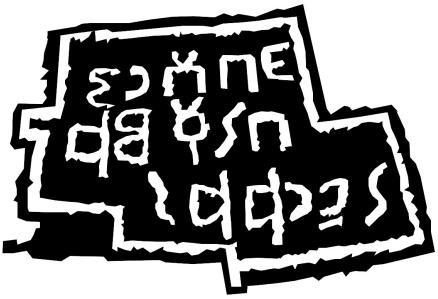


FIGURE 8
nṭr inscriptions in Iṯlib-style relief (AH 314)
ORIGINAL PHOTOGRAPH AVAILABLE ON OCIANA

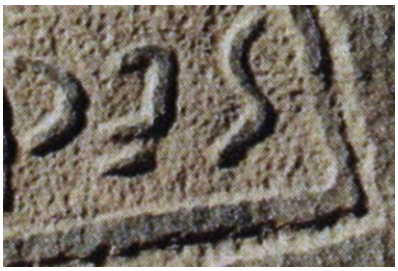


FIGURE 9
Detail of AH 314 showing the individual points of impact created by pounding the rock
PHOTOGRAPH AVAILABLE ON OCIANA

AH 312 *ndb bn s¹lw // nṭr ddn*
'*ndb* son of *s¹lw* guarded Dadan'

2.3 *Deeply Incised Inscriptions*

The second manner consists of deeply incised inscriptions. This form is typically found on objects, such as incense burners (Private collection 2), but can also be seen in dedicatory inscriptions, legal inscriptions, as in Figure 10 (al-Ḫuraybah 17; JSLih 077), and even graffiti on rock face, as in Figure 11 (e.g., JSLih 288).

The Dadanitic inscriptions carved in relief or deeply incised into the rock with a sharp tool may be compared to, for example, the Sabaic inscriptions, which were executed with a level of skill that suggests that people commissioned them and that they were made by a professional mason (Macdonald 2010, 7). Some of these masons even signed their name at the end of their work. For example, al-Ḫuraybah 12, shown in Figure 5, is a beautifully executed relief, commemorating the city of Dadan making dedications to *ḏġbt*, in which the mason signed his name in the last line of the inscription.

FIGURE 10 A legal inscription incised in a block (al-Ḫuraybah 17)
PHOTOGRAPH AVAILABLE ON OCIANA

al-Ḫuraybah 17

[----]*//f / mm---- // ---- l-ddn / l-ʾbd / ---- / /----rs¹ / mn / s¹rqt / ʾym-- // ----{m}n / s¹rq / f-ʾn / yṣbr / b-mh / s¹r[q]---- // ----{d}n / thḏ-h / kll-h / f ḥṯm ---- // ---- hs¹rqt / yṭb / h-s¹rq / ʾw / y ---- // ----bh*
'... to/for Dadan forever ... from theft days ... who stole(?) and if he is caught with what he {stole} ... if all of it broke (the stolen things) then beat him(?) ... the theft/stolen goods acquit the thief or ...'

FIGURE 11 An inscription deeply incised on a rock face (U 040 a *ẓll* inscription)
PHOTOGRAPH AVAILABLE ON OCIANA

U 040 *qnlt / bn / ʿbdddh // w bn-h / ms¹k / ʾgw // h-ẓll / l-ḏġbt // f rḍ-h / w ʾṯb-h*
'*qnlt* son of *ʿbdddh* and his son *ms¹k* dedicated the *ẓll* to *ḏġbt* so may he favor him and aid him and reward him'

2.4 *Chiseled Inscriptions*

Chiseled inscriptions are also cut into the rock and can be distinguished from incised ones by the width of the base of the grooves. Chiseled inscriptions were not carved into the rock with a sharp tool but with a wider one, giving the lines a flat, wider base. This technique was used in graffiti as well as in dedicatory (see Figure 12) and funerary inscriptions.

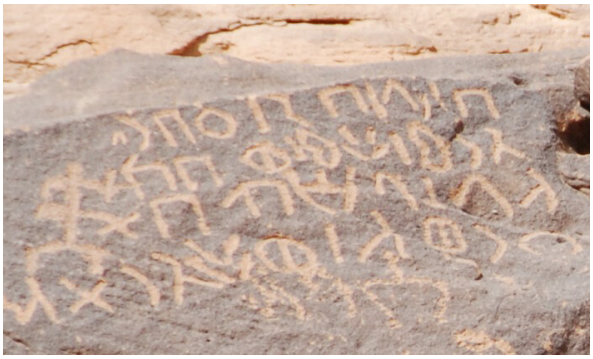


FIGURE 12
A dedicatory text chiseled on a rock face (AH 113)
PHOTOGRAPH AVAILABLE ON OCIANA

AH 113 *b{ḫ}l / bn / ʿbd//ḫrg /ʾgw b-k//hl / l-ḏġbt // f rḍ-h / w ʾḫrt-h*
'*b{ḫ}*l son of *ʿbdḫrg* dedicated at *khl* to *ḏġbt* so may he favor him and his posterity'

2.5 *Pounded*

The fourth manner of inscribing, where the text is pounded onto the rock, is relatively easy to produce. For these inscriptions, the inscriber simply hammered out the outline of the letters with another stone. In most pounded inscriptions, the separate impacts of the stone on the rock are still visible in the lines of the letters. This technique was used to carve both *ẓll* inscriptions (e.g., U 116) and short graffiti containing mostly personal names (e.g., AH 065.1), sometimes accompanied by a short statement about the writing of the inscription (e.g., Nasif 1988: 52, pl. XLVII).

FIGURE 13 A *ẓll* inscription pounded on a rock face (U 116)
PHOTOGRAPH AVAILABLE ON OCIANA

U 116 *ʿbdʾtbl // hẓll / l-ḏġ//bt / f rḏy-h*
‘*bdʾtbl* performed the *ẓll* for *ḏġbt* so may he favor him’

As a final note on the varying manners of inscribing, it is worth noting that both U 001 (Figure 6) and U 116 (Figure 13) are written on rock faces, commemorating the same ritual, using similar formulae. However, while the first was executed in relief, the second was pounded onto the rock. Even though inscriptions in relief are generally longer than some of the attested graffiti, which often only contain personal names, it seems to have been perfectly acceptable to use any of the above-mentioned methods to produce any genre of inscription.

3 Dadanitic Alphabetic Text

So far, one Dadanitic inscription has been found containing an abecedary (JSLih 158). The abecedary is far from complete (the longest line only representing 11 letters). The repetition of the letters seems to indicate that this was a writing exercise. The first four letters of the first line follow the *hlḥm*-letter order. Macdonald (1986, 113) suggests that the first three letters of line 2 represent the same letters as letters 3 through 6 in line 1, but in reverse order. He also suggests that the first letter of line 3 should be read as ‘another failed attempt to master the correct shape of the *h*-sign’ (113). Another interesting point highlighted by Macdonald (1986, 114) is that many of the other inscriptions on the same rock face as JSLih 158 contain badly formed letters (e.g., JSLih 144; 160; 156; 161) and odd repetitions in letters within the same text (JSLih 155). He notes that even though aberrant letter forms and deviation from the standard formu-

lae occur throughout the Dadanitic corpus, their concentration is particularly high on this rock face, which might suggest that this was a practice site (Macdonald 1986, 115).[15]

4 Summary: Varying Styles, Varying Forms

This chapter introduced the Dadanitic script in all its variation, displaying varying letter shapes and manners of execution. Although the variation in letter shapes was already mentioned in relation to our understanding of the development of the Dadanitic script in the Introduction and Chapter 1, § 4, here the focus was on the specific variation in the representation of *ẓ* and *ṭ*, showing that distinguishing them based on form is not always unambiguous. The chapter continued with a discussion of the different manners of inscribing that I distinguish in this work: inscriptions executed in relief, deeply incised, chiseled, and pounded inscriptions. These will be used as variables in the statistical analysis in Chapters 7 and 8. The chapter ended with a brief discussion of the one attested Dadanitic abecedary, which was already mentioned in the Introduction in relation to its significance for our understanding of the workings of scribal practice and education at Dadan. The discussion in the present chapter focused more on the content of the inscription and what this short text can tell us about the established letter-order used at the oasis.

15 Macdonald notes that the Minaic abecedary found in al-ʿUlā also seems to be surrounded by several other exercise texts (Macdonald 1986, 115).