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Abstract

Nabataean Aramaic contains a large number of loanwords from Arabic. Together with other evidence, this has been taken as an indication that the Nabataeans used Aramaic as a written language only, while a Pre-Islamic variety of Arabic was their spoken language. Based on a comprehensive review of the evidence, however, this article concludes that both Arabic and Aramaic were in spoken use in the Nabataean Kingdom and Late Antique Northwest Arabia. Departing from this modified understanding of the linguistic status of Nabataean Aramaic, various features of Pre-Islamic Arabic are then examined based on the Nabataean evidence: the realisation of the voiceless sibilant /s/, nominal morphology, the reflexes of stem-final **y*, verbal syntax, and the lexicon.

KEYWORDS

language contact, lexical borrowing, loanwords, morphology, Nabatean, syntax

1 | INTRODUCTION

Nabataean Aramaic, originating in the kingdom once ruled from Petra, closely resembles Imperial Aramaic. The latter, spread far and wide by the Achaemenid Empire, is now well known to us from Persian-period corpora like the Elephantine Papyri (cf. Folmer, 1995, 2022; Gzella, 2015, pp. 157–211; Muraoka & Porten, 2003). But Nabataean Aramaic does show some differences from Imperial Aramaic, most strikingly a fair number of grammatical features and loanwords taken from Arabic (see the discussion below). This matches both the frequent occurrence of Arabic-derived names in the Nabataean onomasticon and ancient sources which refer to the Nabataeans as Ἄραβες 'Arabs'. The general consensus since Cantineau (1930–1932, 1934–1935) has therefore been that 'the Nabataeans' may have written Aramaic, but that they spoke Arabic (see the works cited in Butts, 2018, p. 40n7).

Less attention has been paid to the ways in which Nabataean Aramaic diverges from Imperial Aramaic that cannot be due to Arabic influence. The most broadly accepted scenario, whereby the Nabataeans used Aramaic as a purely written language and modified it by introducing features from their spoken Arabic, cannot account for these. What can these non-Arabic innovations in Nabataean tell us about the linguistic status of Aramaic in the Nabataean kingdom and ancient North Arabia? And how does this affect our understanding of Pre-Islamic Arabic?

This paper will consider these questions in three steps. The first two sections will examine the evidence for the use of Arabic and Aramaic, respectively, as put forward in the literature since Cantineau,[1] with special attention to evidence from Aramaic-internal language change, a largely neglected perspective. Then, we will consider what this says about the linguistic status of both languages in the Nabataean realm and investigate a number of features of Pre-Islamic Arabic as reflected in Nabataean Aramaic, bearing in mind our findings on the sociolinguistic situation.

But first, we must define our terms. The meaning of *Aramaic* is uncontroversial: (any variety belonging to) a

[1] On the earlier scholarship, see Butts (2018, pp. 39–40).

certain family of closely related Semitic languages/dialects that descend from a shared ancestor presumably spoken in late second-millennium BCE Syria, with many shared features and a long written history (e.g., Healey, 2013, pp. 23–24; Huehnergard, 1995; Gzella, 2015). Some of the other terms that are crucial to this investigation have been used in different or vague ways and require clarification.

Both with reference to the present day and with reference to Antiquity, the term *Arabic* is used with different meanings. One thing that everyone agrees on is that the term includes Classical Arabic as written during the first centuries of the Islamic era as well as the Modern Standard Arabic used primarily in writing in the Arab world today (in Arabic, these varieties are often collectively referred to as *Fuṣḥā* 'most eloquent [language]'). Whether other language varieties are counted as Arabic then reflects a judgement on their closeness to these prototypical forms of Arabic on linguistic, but also social, cultural, and political grounds.[2] In Antiquity, the question revolves around the classification of the various Ancient North Arabian corpora, defined as Arabian languages, other than the Ancient South Arabian ones, written in the South Semitic alphabet. The different groups comprising this category are separately known as Safaitic, Hismaic, Taymanitic, Dadanitic, Dumaitic, Hasaitic, dispersed Oasis North Arabian, and Thamudic B, C, and D (Macdonald, 2000). Many of the languages written in these scripts are too poorly attested or understood to establish their exact relationship with other Semitic languages. Of the rest, Taymanitic apparently shares some features with Northwest Semitic languages like Aramaic and Canaanite (Kootstra, 2016), Dadanitic shares some features with what is generally recognised as Arabic, and especially Safaitic and Hismaic are quite close to it (Al-Jallad, 2018b). Macdonald (2000, pp. 48–49, 2009, pp. 312–313) distinguishes these from what he calls Old Arabic, barely attested in the epigraphic record, based on a few grammatical features that set them apart from prototypical Arabic. Given their overall similarity, Macdonald does employ the term *North Arabian* to refer to both Ancient North Arabian and Arabic collectively, something in which he has been followed by authors such as Butts (2018). Al-Jallad (2018b), on the other hand, points out the many linguistic features shared by prototypical Arabic, Safaitic, and Hismaic and argues that all these language varieties can collectively be called Arabic. Some further support comes from a recently published Safaitic inscription which may attest to the use of the word *ʿrb* or *ʾʿrb* as an ethnic self-designation (Al-Jallad, 2020b); certainly, many of the Ancient North Arabian texts are associated with geographic areas and ways of life that have traditionally been associated with Arabs (see below). Ultimately, the difference between these uses of *North Arabian* and *Arabic* is one of semantics. The present study follows Al-Jallad's convention of using *Arabic* to include Safaitic and Hismaic. We will use *North Arabian* to include Dadanitic, which is linguistically close to prototypical Arabic, Safaitic, and Hismaic, but lacks certain innovative features that they all share.

The question of defining Arabic has already led us to touch on the question of defining Arabs. Up to the late 20th century, the question of whether the Nabataeans *spoke Arabic or Aramaic* was rarely kept completely separate from the question of whether they *were Arabs or Arameans*. This essentialisation of ethnicity, where speaking Arabic, having an Arabic-derived name, a historical link to Arabia (the peninsula or the Roman province), nomadic pastoralism, or worshipping a particular god are all just superficial diagnostics of a deeper, independently existing Arabness, should be rejected. As is the case today, it was not at all necessary for all of these factors to occur together in Antiquity either.[3] We cannot infer the languages someone used from their name, occupation, or religious practices. Hence, the focus of this paper will lie on the concrete use of Arabic or Aramaic language, not on a deeper and ill-defined Arab or Aramean ethnicity as a proxy. We will, however, discuss some of the cultural and ethnic arguments that have been made in the literature for the sake of completeness.

The final concept that must be problematised at the outset is that of *the Nabataeans* themselves. Macdonald (1998) cautions against a facile extrapolation from script to ethnicity: it is highly unlikely that everyone who wrote in what we call the Nabataean script 'was' Nabataean in any meaningful sense. In the Nabataean corpus, the only ways the term is used are in the frequent phrase *mlk nbṭw* 'king of the Nabataeans' or 'king of Nabataea' and with reference to *ḥlyqt ḥrm (…) nbṭw wšlmw* 'the custom(s) of inviolability (…) of the Nabataeans and the Salamaeans'. In other corpora, *nbṭy* and *nbṭwy* 'Nabataean' are attested as self-designations a few times,[4] but it is unclear what the term would have meant exactly to the writers who used it. As emphasised by Anderson (2005) and Alpass (2011), the Nabataean kings ruled over a realm that was characterised by diversity, and we cannot simply assume that all their subjects shared one language, religion, or any other potential markers of identity.

[2]Cf. the widespread reluctance to identify Maltese as a form of Arabic despite its linguistic closeness to Arabic vernaculars of North Africa, or similar arguments for Lebanese, linguistically extremely close to (other) forms of Levantine Arabic.

[3]This point is expertly made by Macdonald (2009). In the second half of this article, however, Macdonald goes on to argue for 'a complex of language and culture' as the basis for self-identification and identification of others as Arab in ancient sources. I am inclined to follow his argumentation in the first half and reject the necessity of identifying one factor (or set of factors) that is shared by everyone who was called an Arab in Antiquity. As Macdonald notes, the time between the first attestation of the word 'Arab' and the rise of Islam spans some 15 centuries; it seems inescapable that the meaning of 'Arab' varied considerably from time to time and from place to place.

[4]Apart from the discussion in Section 2.2, cf. the Palmyrene inscription CIS II 3973, by *ʾbydw br ʿnmw* [*br*] *šʿdlt nbtyʾ*. See also Al-Otaibi (2015).

Hence, we will primarily focus on Nabataean Aramaic inscriptions as defined by the use of the typically Nabataean script and the Aramaic language, while taking note of other texts by authors who explicitly identify themselves as Nabataeans.

Having defined the scope of our investigation, we can now turn to the different types of evidence for the linguistic status of Arabic and, subsequently, Aramaic.

2 | EVIDENCE FOR THE USE OF ARABIC

2.1 | Evidence from culture/ethnicity

Besides the discussion in his grammar of Nabataean, Cantineau explores the role of Arabs, Arabic and Aramaic in the Nabataean realm further in a separate paper (1934–1935). Here (p. 77), he explicitly states at the outset that the Nabataeans were 'not only *of Arab origin*, but probably also *Arabic-speaking*, the Aramaic dialect referred to as "Nabataean" being a learned language used besides an *Arabic* vernacular' (emphasis in original),[5] and that it is not certain that Nabataean was ever in spoken use. He provides a number of arguments for this thesis.

Cantineau traces the recorded history of 'the Arabs' during the first millennium BCE. He notes that they are represented as nomads up to the second century when the weakened Seleucid Empire ceded control over cultivated lands to Arab dynasties in certain areas. Cantineau bases his assessment of these dynasties and states as Arab on onomastics. He also notes the supposed arrival of Safaitic speakers (*les Ṣafaïtes*) in and near the Hauran around the same time.[6] It is inconceivable to Cantineau that a state that depended on caravans and desert trade routes, such as the Nabataean kingdom, should be run by a sedentary population rather than a nomadic one; in this period, he asserts, this amounts to a distinction between Arameans and Arabs.

Second, Cantineau cites the many places where Greek authors from Classical Antiquity refer to the Nabataeans as Arabs. These range from Diodorus Siculus (first century BCE) to Flavius Josephus (late first century CE).

Third, he states that with the exception of *b'l šmn* 'the Lord of Heaven' and his temple in the far north of the Nabataean realm, all the major Nabataean deities are Arabian: Dusares, Allat, Manot, al-Uzza, and Hobal. He argues that this is a much more one-sided situation than at Palmyra, where he concedes that the significant worship of the Mesopotamian god Bel does not mean that the Palmyrenes were actually Babylonian.

Returning to the importance of onomastics for his argument, Cantineau argues against the likelihood of non-Arabs bearing Arabic names at this time and provides some criteria for identifying a name as Arabic in origin (pp. 83–84). He then conducts a survey of attested Nabataean names starting with *g-* (to arrive at a manageable sample). The results (p. 91) are presented in Table 1. Cantineau has counted the minimum number of distinct persons bearing each name, based on genealogy and context, and separated these out by attestation in the Sinai Peninsula or elsewhere in the Nabataean realm. No name in his sample is unambiguously Aramaic in origin.

Cantineau concludes that the Nabataean onomasticon was overwhelmingly Arabic, supporting his identification of the Nabataeans as Arabs. He qualifies this (p. 92) by saying that non-Arab populations were present in part of the Nabatean kingdom, namely, the Hauran, and perhaps also in northern and central Transjordan. But in 'Nabataea proper' (*la Nabatène proprement dite*), that is, southern Transjordan up to the Hijaz, Cantineau maintains that the sedentary population was of Arab origin. He draws parallels with the cultivation of the desert oases by seminomadic or sedentary populations 'of Arab stock' (*de race arabe*) and sees 'no reason to believe that it was not the same in the properly Arab part of the Nabataean empire'.[7] Besides the circularity of this argument—the properly Arab part of the empire, that is, where Arabs lived, was populated by Arabs—Cantineau does not seem to notice how this contradicts his equation of sedentariness with Arameans and nomads with Arabs.

Cantineau is sufficiently aware of the distinction between language and ethnicity that he explicitly and separately considers the case for Arabic as a spoken language among the Nabataeans (pp. 92–93). The strongest argument, in his view, comes from the references to the Nabataeans as Arabs, as for the ancient authors, 'race and language are intertwined' (*race et langue se confondent*). Had the Nabataeans spoken Aramaic, they would have gone down in Greek literature as Σύριοι ('Syrians', 'Arameans'). A second argument comes from the linguistic evidence for contact with Arabic described in Cantineau's grammar, which we will discuss below. Notably, he does not cite the onomastic evidence in support of an Arabic vernacular (*pace* Macdonald, 2000, p. 47).[8] As for the status of Aramaic,

[5] *non seulement* arabe d'origine, *mais probablement aussi* arabophone, *le dialecte araméen dit « nabatéen » étant une langue savant à côté d'une langue vulgaire* arabe.

[6] On the error of identifying 'Safaites' as an ethnic group, see Macdonald (1998, pp. 183–184).

[7] *il n'y a pas de raison de croire qu'il n'en ait pas été ainsi dans la partie proprement arabe de l'empire Nabatéen.*

[8] O'Connor (1986) explicitly notes that the linguistic origin of Nabataean personal names does not bear directly on what language was in spoken use. This point is also made in other publications such as Macdonald's (1999) review of Negev (1991) and other articles by the same author (e.g., Macdonald, 2000, p. 38). Macdonald (2009, pp. 292–294) moreover makes the vital point that 'the majority of those described as Arabs in the papyri bear Egyptian or Greek names', suggesting a further disconnect between linguistically Arabic names and perceived Arab ethnicity at this time. These objections are all valid, but the view they refute, that Arabic in the Nabataean onomasticon shows that the Nabataeans spoke Arabic, does not seem to have been asserted with much force in the literature.

TABLE 1 Etymology of Nabataean names starting with *g-* according to Cantineau (1934–1935).

Category	Number of names	Name-bearers (at least), Sinai	Name-bearers (at least), elsewhere	Name-bearers (at least), total
Certainly Arabic	21	106	21	127
Very probably Arabic	4	0	4	4
Probably Arabic	5	19	10	29
Latin	2	0	2	2
Greek	1	0	1	1
Uncertain	7	1	6	7
Total	40	126	44	140

Cantineau goes so far as to deny the existence of Nabataean Aramaic as a separate dialect: it is merely a collection of Aramaic texts written in a certain time and place, comparable to the corpus of French texts written in Mandatory Syria, which do not constitute a separate dialect either.

Healey (1989, 2021) argues for the Arab ethnicity of the Nabataeans along similar lines as Cantineau. He provides some explicit characteristics of Arabness on pp. 40–41/363. These are 'a common basic culture' involving shared features such as names and deities and 'a common linguistic tradition', referring to the Arabic language.

As discussed in Section 1, we cannot simply assume that Arab ethnicity was a package deal, which inevitably combined onomastics, religion, ways of life, and language. Other indications that some or most Nabataeans were culturally or ethnically Arab do not bear directly on their use of Arabic as a spoken language.

2.2 | Evidence explicitly connecting Nabataea and Arabic languages

A first- or second-century CE inscription found in 1979 at En Ovdat (or En Avdat, also Ayn Abadah; Negev & Shaked, 1986) contains valuable evidence of the use of Arabic. The Aramaic text, which refers to the deified Nabataean king Obodas, securely establishes the Nabataean connection, while the three lines of Arabic poetry attest the definite article *ʾl-* (on *ʾlmwt* or *ʾlmwtw* 'death') also known from Nabataean Arabic names, as opposed to the other definite articles attested in the Ancient North Arabian corpora. The origin of the Arabic text is debated, leaving questions about how its language relates to the vernacular unanswered.

Another important datum on the language use of 'the Nabataeans' comes from a Safaitic inscription that Macdonald (1998, p. 186) discusses in the context of the difficulty of establishing ethnicity based on epigraphic texts. This inscription was written in Safaitic by a man who identifies himself as *hnbṭy* 'the Nabataean'.[9] Two other such Safaitic inscriptions are mentioned by Al-Jallad (2020b, p. 157), both by different individuals than the first.[10] Here, we have hard evidence that at least three people who considered themselves Nabataean—for whatever reason—wrote Arabic, although the content of these inscriptions is minimal. Supporting evidence comes from a number of Nabataean inscriptions occurring next to Hismaic ones by the same author (e.g., Hayajneh, 2009; Norris & Al-Manaser, 2020), showing that some writers were proficient in Arabic as well as Nabataean Aramaic.

Proceeding from the discovery of several Safaitic inscriptions containing the term *ʾʿrb*, Al-Jallad (2020c) provides a concise overview of the use of *Arab* and related terms in Antiquity (complementing longer works such as Eph'al, 1982; Macdonald, 2009; Retsö, 2003), together with some literary evidence for the use of the Arabic language in the Nabataean realm (pp. 430–431). This evidence can all be (roughly) dated to the fourth century CE, after the heyday of the Nabataean texts, but relevant nonetheless. Geographically, the references point to the Petra region (Uranius), Elusa in the Negev (Epiphanius of Salamis), and an unspecified 'Arabia' (Rabbi Levi in Genesis Rabba). In Al-Jallad's assessment, 'all of these examples show that outsiders understood that the language of Arabia—the Nabataean realm and adjacent deserts—was distinct from Aramaic and Greek, and that they, at least in the case of the Greek writers, called it "Arabic"'.

[9]Macdonald notes that most of the names in his genealogy are common in Safaitic but rare in the Nabataean corpus, further underscoring the tenuous link between language, onomastics and ethnicity.

[10]Interestingly, one author refers to himself as *nbṭwy slmy* 'a Salamaean Nabataean' or 'a Nabataean, a Salamaean' (CIS V 2820). This recalls the Nabataean tomb inscriptions' *ḥlyqt ḥrm (…) nbṭw wšlmw* 'the custom(s) of inviolability (…) of the Nabataeans and the Salamaeans' (H 1: 3–4; 8: 9; 19: 3).

Unlike the alleged evidence for Arab culture or ethnicity, the Arabic in the En Ovdat inscription, the Safaitic inscriptions by self-proclaimed Nabataeans, Hismaic and Nabataean Aramaic inscriptions by the same authors, and the references to formerly Nabataean areas as being linguistically Arabic touch directly on the association between the Nabataean realm and the Arabic language. They do not tell us how broadly and in exactly which settings Arabic was used, however. Additional evidence comes from the well-known traces of contact with Arabic seen in Nabataean Aramaic.

2.3 | Contact features in Nabataean Aramaic

Cantineau (1930–1932, vol. 2, pp. 171–173) provides a list of linguistic borrowings from Arabic as part of his appendix on vocabulary. In terms of phonology, he identifies six features. But these are either limited to Arabic personal names and possible loanwords (preservation of *-t* in the feminine ending; spelling of **ḏ* [i.e., **ś*] with *ṣ*; preservation of word-initial *w*-); shared with other contemporary varieties of Aramaic (see Section 3.3; the features are the interchange between *s* and *š* and the occasional shift of **ā* to **ō*); or hard to link to Arabic specifically (interchange between *n* and *l*). No clear phonological Arabisms seem to have affected Nabataean Aramaic as a whole. Morphologically, Cantineau lists a number of features, which are limited to incidental occurrences in graffiti, several of which occur in what is arguably an Arabic text (JSNab17), and some features that are more accurately classed as loanwords, but nothing that affects the morphology of Nabataean Aramaic as a whole. The only syntactic feature he notes is again limited to the linguistically Arabic inscription JSNab17, besides some features that are typical of Western Aramaic as opposed to Imperial Aramaic. In contrast with this lack of clear grammatical influence, Cantineau does cite a considerable number of loanwords, which we will discuss below (Section 4.5).

O'Connor (1986) discusses and dismisses most of Cantineau's alleged grammatical borrowings in a footnote (p. 216 n. 15). He also eliminates a number of the Arabic loanwords proposed by Cantineau (see Section 4.5). O'Connor identifies the remaining loanwords as mostly relating to funerary practice and related legal issues and concludes (p. 220):

> The class of Arabic loanwords does not, it seems, testify to the strong influence of Arabic on the Nabatean language as a whole, as Cantineau thought. Rather, the class of words reflects rather closely the fact that the most important finds at Madāʾin Ṣāliḥ, as at Petra, are funerary.

Despite O'Connor's otherwise sound analysis, this conclusion amounts to an argument from silence. In the absence of significant numbers of non-funerary texts of considerable length, we do not know what the distribution of Arabic loanwords over other semantic fields looks like and cannot conclude that it was strongly related to burial practices. Indeed, the subsequent publication of Nabataean legal papyri (Yadin et al., 2002; Yardeni, 2001) has revealed a fair number of loanwords from other domains.

Macdonald (1998, p. 184; similarly 2000, p. 47; and earlier Levinson, 1974) draws attention to the distribution of the Arabic or Arabian loanwords in Nabataean. He notes that the bulk of these occurs in texts from North Arabia, namely, Mada'in Salih/Hegra and Rawwafa. Three of the four remaining words occur in just two texts from Petra, while the remaining word is limited to texts with strong connections to the Safaitic corpus, where the same word (*ʾl* 'lineage, tribe') is highly frequent. 'Thus', he writes,

> the "Nabataean" language as a whole, and one should be very careful how one defines that, is not permeated with loan-words from Arabic; they are confined to the dialect used in North Arabia, which is what one would expect.

More recent findings have affected the author's opinion on this question. Macdonald (2010, pp. 19–20) finds 'some very compelling evidence' for the spoken use of Arabic in the Nabataean legal papyri (similarly Macdonald, 2009, p. 309). Noting that these documents come from 'the heart of the Nabataean kingdom', Macdonald reasons that '[i]f the Nabataeans had an established legal terminology in Arabic, this surely suggests that they used Arabic in their legal proceedings, even though the results were recorded in Aramaic'. He also adduces the evidence from the En Ovdat inscription (Section 2.2). Together with the aforementioned references to the Nabataeans as 'Arabs' (see Section 2.1), these arguments support their use of Arabic as 'an ancestral language'. He goes on to envision 'a society, at least in the southern parts of the Nabataean kingdom and later of the Province', where Arabic was used for all spoken purposes, from informal to highly formal, while Aramaic was used in writing.

Butts (2018) studies the North Arabian elements in Nabataean Aramaic from a contact-linguistic perspective, using the framework of Van Coetsem (1988). Butts's study is limited to the tomb inscriptions from Mada'in Salih/Hegra, comprehensively published by Healey (1993). Out of O'Connor's narrowed-down list of loanwords, 12 nouns occur in these texts. These account for nearly 11% of the total noun types attested in the inscriptions, a fairly high concentration (citing Butts, 2016, p. 208),

similar to the concentration of Greek loanwords that are nouns in the Syriac *Life of John of Tella* (10.47%), which has a relatively high concentration of Greek loanwords for a Syriac text, and just less than those found in the Jewish Palestinian Aramaic portion of *Genesis Rabbah* (13.70%), a text in which the Greek language is highly thematized.

Besides these nouns, Butts identifies three borrowed verbs, *lʿn* 'to curse', *ʿyr* 'to alter', and *rhn* 'to pledge', and one particle, *p-* 'and, then'. *Pace* Butts (2018, p. 47) O'Connor (1986) does mention this last word in a footnote on p. 216 of his article, where he rightly notes that it could be either Arabic or Aramaic (note its occurrence in Old and Imperial Aramaic; Hoftijzer & Jongeling, 1995, s.v. p_1). In terms of grammatical borrowings, Butts follows Nöldeke (1885, pp. 78–79) in identifying Arabic influence in the use of *mn* 'who' as an indefinite pronoun and the optative use of the perfect. As far as *mn* is concerned, Butts notes that the use of this pronoun by itself is attested from Old Aramaic onward and continues into Imperial Aramaic, where it occurs besides the more common construction *mn zy*, with an additional relativizer. This is essentially the same situation that is seen in Nabataean: in the Mada'in Salih tomb inscriptions, Butts counts 10 tokens of bare *mn* besides 21 of *mn dy* (p. 52). Given the acknowledged presence of other archaic features in Nabataean compared to the rest of Middle Aramaic, whether this should be seen as Arabism is questionable. For the optative use of the perfect, an Aramaic-internal explanation is also conceivable, for example, reanalysis of the ambiguous participle or perfect form *dkyr* (**dakīr*) 'remembered be'. But since this use of the perfect is completely absent from other forms of Aramaic, including Imperial Aramaic, influence from Arabic does seem likely in this case, making this a stronger example of North Arabian grammatical influence.

Butts concludes (p. 53) that the presence of grammatical borrowings points toward what Van Coetsem terms *source language agentivity* or *imposition*, consistent with a scenario where Arabic was the authors' dominant language. But according to Van Coetsem's model, lexical borrowing is not normally expected in this scenario. This leads Butts to propose 'a case of more extreme imperfect learning in which the speaker (or: writer) not only fails to adequately produce the phonology and/or (morpho-) syntax of the recipient language—the expected changes—but also must occasionally resort to their more dominant language for lexical items' (p. 54), employing a concept (imperfect learning) from another major contact-linguistic framework (Thomason & Kaufman, 1988). As it is uncertain that the construction of *mn* without *dy* reflects North Arabian influence, it may be easier to identify what Van Coetsem calls *recipient language agentivity* or *borrowing*: Nabataean Aramaic as attested at Mada'in Salih results from the selective incorporation of certain North Arabian words and phrases by language users for whom Aramaic was dominant. This can also account for the optative use of the perfect, which is largely limited to the expression *lʿn* 'may … curse', a phrase that also contains a lexical borrowing. This supports the possibility that the phrase 'may … curse' was borrowed as a whole. Perhaps together with a reanalysis of passive participles like *dkyr* 'remembered (be)' and *bryk* 'blessed (be)' suggested above, this may then have enabled the construction to spread to other lexemes, as in *šhdw* 'may … (pl.) witness'.[11]

Due to their more recent publication, the Nabataean papyri have played a smaller role in the debate over borrowings from Arabic. A great number of suggested loanwords are noted in the *editio princeps* of most of the papyri (Yadin et al., 2002) and a separate article by Yardeni (2014). The reasons to identify many of these words as Arabic are questionable, and Suchard and Kjær (forthcoming) reject about half of the proposed borrowings. This still leaves a sizeable number of some 30 plausible or possible borrowings, concentrated in the semantic fields of legal and financial terminology and features of local geography and agriculture (see Section 4.5).

Finally, a syntactic Arabism may be attested in a recently published funerary inscription from Dumat al-Jandal (Alzoubi & Smadi, 2016). Here, we find the expression *dy yhw … mtqbryn bqbrʾ hw wqbryn b*[*h*] 'that … may (pl.) be buried in that grave and bury in it'. The verb *yhw* 'they may be' shows a loss of the second radical **w* that is also seen in other varieties of Middle Aramaic (see Section 3.3), but it is also remarkable because of the short plural ending *-w* instead of usual *-wn*. The use of a short imperfect after *dy* is abnormal in Aramaic but may be a calque of an Arabic expression like *ʾan yakūn-ū*, where the conjunction 'that' conditions the use of the short plural ending on the verb. This is not a general rule in Nabataean Aramaic, however, and if this is indeed an Arabism, it is an isolated one.

2.4 | Conclusions on the use of Arabic

There is ample evidence for the use of Arabic in the Nabataean realm. This is clear from the attestation of three lines of Arabic religious poetry in a Nabataean text from the Negev, from the self-designation of certain writers of Safaitic inscriptions as Nabataeans,

[11]On Cantineau's scenario, where Nabataean gradually "emptied" itself of Aramaic elements and replaced them with Arabic, Butts remarks that '[s]uch a replacement evokes a situation of borrowing in which native speakers of Nabataean Aramaic were gradually substituting features of their own language with North Arabian ones' (p. 54). As discussed in Section 2.1, Cantineau explicitly doubts that Nabataean Aramaic ever existed as a distinct dialect, let alone that it had native speakers. Butts's proposal of imperfect learning is, in fact, equivalent to the situation envisaged by Cantineau (1934–1935).

from parallel Nabataean Aramaic and Hismaic texts by one and the same author, and from references by outsiders to Arabic being used in the former Nabataean kingdom (Section 2.2), as well as a high number of North Arabian lexical borrowings in the Nabataean inscriptions and papyri (Section 2.3). The borrowings in Nabataean Aramaic reflect the use of Arabic for legal purposes and in the context of local customs and modes of subsistence. The En Ovdat inscription attests to the use of Arabic for religious purposes. Finally, the Ancient North Arabian inscriptions may well attest to the use of Arabic as a spoken vernacular. All in all, Arabic seems to have been used in a wide range of contexts.

3 | EVIDENCE FOR THE USE OF ARAMAIC

3.1 | Contact features in Ancient North Arabian

In a now classic overview of the languages of the Arabian Peninsula in Antiquity, Macdonald (2000, p. 48) provides an argument for the spoken status of Nabataean Aramaic based on the attested forms of the divine name Dusares, etymologically probably 'the one of the Shara (mountains north of Petra)'. In the Hismaic inscriptions from Wadi Ramm, near Petra, this name is usually spelled in its expected Ancient North Arabian form, *ḏs²ry*. In the Safaitic corpus of the Hauran, however, the name is usually spelled *ds²r*. As inherited **ḏ* (as in **ḏū* 'the one of') is normally spelled *ḏ* in Safaitic, the spelling with *d* suggests borrowing via an Aramaic source, where **ḏ* had merged with *d*. Macdonald explains (note his distinction between Old Arabic and Safaitic, discussed in Section 1):

> If these were speakers of Old Arabic there would have been no point in their communicating with the nomads in Aramaic, since Old Arabic and Safaitic would have been mutually intelligible. In this case, the name Dushara would have come into Safaitic with an initial /ḏ/ and a final, consonantal /y/. Instead, it was borrowed in its Aramaic form with an initial /d/ and (presumably) a final vowel, and this suggests that those Nabataeans from whom the cult was adopted spoke a dialect of Aramaic.

This scenario is complicated by Macdonald's (2018) more recent discussion of a Hismaic inscription where the author consistently spells **ḏ* with *d* instead of *ḏ*. Macdonald suggests that this reflects an Aramaic accent in the author's Hismaic, but it could just as well show the merger of the two sounds in some variety of Arabic at the time, which could also have influenced the Safaitic spelling of Dusares.

On possible borrowings from Aramaic into Arabic reflected in the sixth-century CE papyri from Petra, see the following section.

3.2 | Evidence from usage

Of course, the written use of Aramaic in the Nabataean realm is evident from the many Aramaic texts that have reached us, but this does not show that it was also in spoken use. Macdonald (1998, p. 188) notes that while the Nabataean graffiti from Sinai are largely formulaic, the occasional non-formulaic information they contain is also written in Aramaic. He rightly questions whether a purely literary language would be used in such cases.

Owens (2018, pp. 448–451) argues for Arabic–Aramaic bilingualism in the Nabataean sphere, predominantly based on the large overlap between Arabic and Aramaic speakers in the Ancient Near East more generally and the apparent use of both languages in JSNab17. Neither argument is convincing: what holds for, for example, Palmyra cannot automatically be applied to Nabataea, and JSNab17 can plausibly be interpreted as an Arabic text that makes heavy use of written Aramaic conventions.

Finally, an analysis of personal and place names in Greek papyri from sixth-century CE Petra by Al-Jallad (2018a) shows evidence for the use of both Arabic and Aramaic at that time. Certain place names occur with both Arabic and Aramaic morphology (p. 41): αραμ (**ʾārām* or **ʾaʾrām*) besides εραμαεια (**ʾiram-ayyā*) '(the) field markers', αλνασβα (**al-naṣbah*) besides νασβαθα (**naṣbat-ā*) 'the farm', and αλκεσεβ (**al-qiṣb*) besides κ(ε)ισβα (**qiṣb-ā*), perhaps 'the canal'. Certain words with Aramaic etymologies also occur with Arabic morphology, indicating lexical borrowing from Aramaic into local Arabic. While this evidence postdates the latest Nabataean inscriptions, the suggestion of a continued presence of Aramaic at Petra up to this time is intriguing.

3.3 | Evidence from language change

Cantineau (1934–1935) already remarks upon some of the grammatical differences between Nabataean and Imperial Aramaic and notes that they are shared with other forms of Middle Aramaic. In his view, this shows that Nabataean Aramaic was not an independent dialect. Instead, Nabataean scribes were trained in Aramaic-speaking centres elsewhere in the Levant (e.g., Judea, Palmyra, Edessa), learning the language as part of their scribal education. As a result, they brought some of the linguistic innovations that the local forms of Aramaic had undergone back home with them, introducing them to the Nabataean written language. Linguistically, this is plausible enough, but Cantineau does not explain how

this can be reconciled with the existence of a distinct Nabataean script and orthography. If Nabataean scribes were trained elsewhere, why do the Nabataean inscriptions feature their own alphabet and not (for instance) Jewish script, Palmyrene, or Old Syriac?

The next study to focus on language change is that by Morgenstern (1999). He compares the texts that can be securely linked to the Nabataean kingdom (thus excluding the graffiti from Sinai) to Imperial Aramaic as attested in official documents from Elephantine and Samaria. He notes the following differences that are not due to Arabic influence, all of which should be interpreted as innovations in the written standard of Nabataean vis-à-vis Imperial Aramaic[12]:

1. Phonetic spelling of Proto-Aramaic *ḏ, which had shifted to /d/, with *d* instead of *z* (most significantly in the relativizer *dy* and singular near demonstratives *dnh* and *dʾ*);
2. plene spelling of the masculine plural ending *-*īn* as -*yn* besides the defective Imperial Aramaic spelling -*n*;
3. occasional assimilation of *n to a following consonant, as in **ʾantatā* > *ʾtt* 'the wife' and *mṣbʾ* 'the stele' (from the root *n-ṣ-b*);
4. rounding of *ā to *ō in **ʾināš* > *ʾnwš* 'person' and some nouns in *-*ān* like *pqdwn* 'responsibility' (also in **tamānē* > *tmwnh* 'eight [f.]');
5. the use of the plural demonstratives *ʾln* and *ʾnw* besides Imperial Aramaic *ʾlh*;
6. the use of the adverb *blḥwd* 'alone' (possibly borrowed from Phoenician);
7. the C-stem forms *ʾqṭl* (suffix conjugation) and *yqṭl* (prefix conjugation) besides the forms that are more common in Imperial Aramaic, *hqṭl* and *yhqṭl*;
8. t-stem forms with a sibilant first radical that does not show metathesis, like *ytzbn* 'it may be sold', besides metathesised and assimilated *yzdbn*;
9. the use of the direct object marker *yt* instead of Imperial Aramaic *l*-;
10. the use of the root *yhb* 'to give' in the prefix conjugation (once), besides Imperial Aramaic *yntn* from another root.

We may add a few more features:

11. Normally, the expression 'the life of PN' is expressed as a construct chain, *ḥyy* PN, while Imperial Aramaic expresses inalienable possession of this type with a periphrastic construction (noted for Biblical Aramaic by Garr, 1990) only attested in the oldest known Nabataean inscription: *ḥywhy zy* PN literally 'his life of PN' or 'his life, PN's' (Suchard, forthcoming);
12. the loss of the second radical *w in the prefix conjugation of *hwy* 'to be', attested once in *yhw* 'they may be' (Alzoubi & Smadi, 2016), besides Imperial Aramaic *yhww(n)*.

After the Nabataean period proper, additional innovations occur (Suchard, forthcoming):

13. Loss of an unstressed final vowel in **ʾaqīmū* > *ʾqym* 'they erected' in an inscription from Tayma dated to 203 CE (Al-Najem & Macdonald, 2009) if this is not to be explained otherwise (see Section 4.4);
14. spelling of **ʿalōhī* 'over him' as *ʿlhwy* in the same inscription, possibly indicating a pronunciation as **ʿalōy* with loss of the *h;
15. phonetic spelling of *rēš* 'head, chief' as *ryš* (twice) instead of older *rʾš* in an inscription from Hegra dated to 356/7 CE (Stiehl, 1970).

All of these changes find parallels in other varieties of Aramaic from the Roman period, especially those of the Levant. That Nabataean participated in them strongly suggests that it formed part of the larger continuum of spoken Aramaic dialects.

3.4 | Conclusions on the use of Aramaic

As Morgenstern (1999) concisely notes, the innovations vis-à-vis Imperial Aramaic reflect the influence of an Aramaic vernacular on the Nabataean written language (Section 3.3). The additional features noted by Suchard (forthcoming) and in the present paper suggest that this influence continued after the annexation of the Nabataean kingdom. Together with the use of non-formulaic Aramaic expressions in the graffiti and the use of Aramaic at Petra in the sixth century CE (Section 3.2), this suggests that Aramaic maintained a spoken presence in (former) Nabataea throughout Classical and Late Antiquity, not just a written one.

4 | WHAT NABATAEAN ARAMAIC CAN TELL US ABOUT PRE-ISLAMIC ARABIC

Our survey of the arguments for the use of Arabic and Aramaic has turned up evidence for the use of both languages in various contexts. Both languages (lumping the different varieties of Arabic together) seem to have been used both in speech and in writing. Arabic influence in the Aramaic texts is mostly limited to (a great number of) loanwords (see below). Aramaic influence on Arabic is also mostly seen in loanwords (e.g., month names; Al-Jallad, 2020b), with only marginal and ambiguous

[12]Most of these are also mentioned in Suchard (forthcoming), written without knowledge of Morgenstern (1999) and with no intent of plagiarism. Also note that some of the innovative features are already attested sporadically in Imperial Aramaic (Folmer, 1995); it is their complete or near-complete replacement of their older competitors that is a Nabataean innovation.

evidence for grammatical, namely phonological influence (Macdonald, 2018). While there is some evidence of multilingualism from the Nabataean-Hismaic bilingual inscriptions, this suggests that both languages were in stable use.

Given this relatively independent status of Nabataean Aramaic, we must exercise caution when extrapolating from Nabataean evidence to draw conclusions about Pre-Islamic Arabic. The loanwords and other features of Arabic origin we find in Nabataean texts are not direct representations, but mediated through Aramaic. Grammatical features may have been borrowed in ways that differ from how they occurred in the source language, while loanwords may have undergone phonological or morphological integration to adapt them to Nabataean Aramaic grammar. Bearing these constraints in mind, let us consider the evidence concerning Pre-Islamic Arabic that the Nabataean Aramaic corpus has on offer.

4.1 | Realisation of the sibilants

Beeston (1962), followed by Macdonald (2000, p. 46), argues that in early Arabic, Proto-Semitic $*s^1$ and $*s^3$ had merged into a postalveolar sibilant *š. This remained distinct from Proto-Semitic $*s^2$, which in this view was realised as a palatal fricative *ç (like the German *ich-Laut*) at this time. Only later would this *ç shift to š, as it is pronounced today. Al-Jallad (2020b, p. 168n56) notes that Beeston's argument is based on the outdated assumption that Proto-Semitic $*s^1$ was realised as *š, not *s as is now commonly assumed (Kogan, 2011, pp. 69–70), as well as a questionable interpretation of Sibawayhi's description of the realisation of *sīn* in early Classical Arabic. Sibawayhi states that *sīn* is pronounced further back in the mouth than *tāʾ* and *dāl*, but this does not imply that it was postalveolar, merely that it was not dental.[13] Sibawayhi's assignment of *nūn* and *rāʾ* to more or less the same place of articulation as *sīn* supports such an alveolar realisation of the sibilant. As Proto-Semitic $*s^2$ is now understood to have been a lateral fricative *ɬ (like Welsh *ll*; Steiner, 1977), Al-Jallad argues for a contrast between $*s^1$ and $*s^3 > *s$ and $*s^2 > *ɬ$ for Pre-Islamic Arabic. He also suggests that Aramaic as used in Arabia had similarly merged *shin* and *samekh* into [s] due to Arabic substrate (thus also Cantineau, 1930–1932, vol. 1, p. 43).

For Nabataean Aramaic, at least, I find such a merger unlikely. Scholars from Cantineau (1930–1932, vol 1., p. 43) onward have drawn attention to cases where *shin* is used for *samekh* and vice versa. As a rule, however, the two signs are distinguished, and their occasional confusion is not essentially different from what is seen from contemporary forms of Aramaic that were not in heavy contact with Arabic, as well as epigraphic Hebrew from the same period (Kjær, 2013, p. 21; Mor, 2016, pp. 97–105). The merger of *s* and *š* also makes it hard to explain why Greek names and loanwords with *sigma* are mostly spelled with *s*, on the one hand, while those from Arabic are almost always spelled with *š* (Nöldeke, 1885, p. 79). If the two signs were pronounced the same, we might expect more variation. The conclusion reached above that Aramaic was in spoken use in the Nabataean kingdom further supports the possibility that Nabataean Aramaic maintained a *s* : *š* contrast despite the presence of only one unemphatic voiceless sibilant in Arabic.

If Nabataean Aramaic maintained a contrast between *s* and *š*, the fact that the Arabic sibilant is virtually always spelled with the latter provides us with some information about its realisation. Prima facie, it supports Beeston and Macdonald's conclusion that the Arabic reflex of $*s^1$ and $*s^3$ was realised as *š* at this time. Given the now commonly accepted reconstruction of $*s^1$ as /s/ as well as Sibawayhi's description of what appears to be an alveolar realisation in early Classical Arabic, a development of Proto-Semitic *s* (and $*s^3 = *ʿs$) > Pre-Islamic Arabic *š* > Classical Arabic *s* seems uneconomical. But this becomes less of a problem if we simply take the Nabataean evidence as an indication that the Pre-Islamic Arabic reflex of $*s^1$ and $*s^3$ was closer to Aramaic *š* than it was to Aramaic *s*.[14] Given the absence of a contrasting voiceless unemphatic sibilant, the Arabic sound could have been realised at any coronal place of articulation, from dental to postalveolar.[15] Differences between laminal and apical pronunciations (like the distinction between Basque *s* and *z*) may also have played a role. The later shift of ($*s^2 = *ɬ >$) $*ç > *š$ would then have restricted the other sibilant to realisations further toward the front of the alveolum, resulting in the *s* : *š* contrast attested in later forms of Arabic (cf. McDonald, 1974).

4.2 | Nominal inflection

The presence of final *-n* in the triptotic absolute state case endings (e.g., Classical Arabic *bayt-un*, *bayt-in*, *bayt-an* 'house [nom./gen./acc.]'), known as nunation, is reconstructed for Proto-Arabic (e.g., Stokes, 2020, p. 652). As in most epigraphic forms of Arabic,

[13]A contrasting reading is given by McDonald (1974), who interprets Sibawayhi's descriptions to mean that the plosives are alveolar, while the sibilants are post-dental, closer to the teeth.

[14]This cannot be attributed to some peculiar realisation of Nabataean *shin* and *samekh*, as we find the same distribution in Palmyrene (Stark, 1971) and Old Syriac (Al-Jadir, 2021): contrast Greek and Latin names like *slwq(w)s* (Σέλευκος) and *spṭmyws* (*Septimius*) with Arabic ones like *šh(y)mw* (derived from *sahm-*), *šmyšw* (derived from *šams-*) and *šʾydw* (derived from *s-ʿ-d*).

[15]Cf. Kogan's (2011, p. 70) assessment that '[i]n Arabic, the outcome of the merger was likely a hissing-hushing sibilant rather than a pure [s]' (phonetic brackets in original). This possibility is also considered by Al-Jallad (2020a, pp. 41–44).

however, traces of this feature are almost certainly absent in the Nabataean loanwords. Yadin et al. (2002, pp. 191–192) suggest that the word *ʿqrn* (or *ʿqdn*) reflects Arabic *ʿaqār-un* 'real property', including the case ending with nunation. Given the many other examples of nouns that were borrowed without nunation, this is unlikely. Moreover, an Aramaic-internal etymology, deriving the word from **ʿiqqār* 'root' and the derivational suffix **-ān*, readily suggests itself (Suchard & Kjær, forthcoming). We cannot conclude, however, that the Arabic source words lacked nunation too since the case endings could simply have been left off when the words were borrowed into Aramaic; Greek words, for instance, are often treated the same way, for example, στρατηγ-ός > Nabataean Aramaic *ʾsrtg* 'general' (and cf. Contini & Pagano, 2015, p. 146 for Hatran).

Arabic names in the Nabataean corpus in particular and in Pre-Islamic Arabic more generally are often followed by a *-w* in alphabetic scripts, as in *mlk-w* (i.e., Malichus). This appears to reflect an **-u* or **-ū* vowel, cf. the various Arabic names attested in Neo-Assyrian as ^{m}*gi-in-di-bu-ʾu* (RIM.A.0.102.2:ii.94), in Biblical Hebrew as *gašmū* (Neh 6:6), and in Classical Syriac as *ʿabḏu*, and so forth (Teaching of Addai, *passim*). The origin and development of this *-w*, termed wawation, is the subject of an in-depth recent study by Al-Jallad (2022, and see references there). Like nunation, wawation does not occur on Arabic or North Arabian loanwords in Nabataean Aramaic (thus excluding a few texts that appear to be linguistically Arabic), although it is frequent on personal names. Given the possibility of morphological adaptation of these loans, this does not have any implications for the presence or absence of wawation on these words in the source language(s).[16] The internal history of Nabataean Aramaic does, however, allow for a novel interpretation of the later development of wawation in the Nabataean writing tradition. For the most part, *-w* remains a feature of triptotic Arabic names. In some inscriptions, however, it appears in unexpected places, such as following names that already end in another vowel, such as *grmʾlbʿly-w*, or on Aramaic words, as in *bṭb-w* 'for good' (Al-Jallad, 2022, pp. 96, 98).[17] As discussed in Section 3.3, there is some evidence that Nabataean participated in the Aramaic loss of unstressed final vowels sometime in the first centuries (B)CE. This apocope would presumably have affected the **-u* or **-ū* ending as well, resulting in a convention where names like **malik* were written with a silent final *w*, like *mlkw*. This would have facilitated the addition of silent *w* to other names, such as **garm ʾal-baʿl(i)*.[18] The occasional addition of *w* to Aramaic words could be analogical to the same kind of silent *w* spelling in native Aramaic verbs, for example, **ʿabádū>*ʿabad* 'they made' spelled *ʿbdw* (as in Classical Syriac, where the cognate form *ʿḇaḏ* is spelled *ʿbdw* based on a similar historical spelling).

Evidence for the outcome of the feminine suffix **-at-*, too, is scarce. In Arabic personal names like *ḥrtt* (Arabic: *ḥāriṯa*), it is written with *-t*, but the only unambiguous loanword in which it is attested is *wʿrt* 'crags', which is a construct state. This does not allow us to draw any conclusions about whether the ending was pronounced **-at*, **-ah*, or **-ā* in the absolute state.

The evidence for broken plural formation is just as inconclusive. Yadin et al. (2002, p. 93) interpret *ḥrwp* in P.Yadin 7:4 as a plural, 'perhaps referring to dates that ripen in the fall'; this might suggest a broken plural **ḫurūf*. Suchard and Kjær (forthcoming) instead propose a connection with Dadanitic *ḫrf* 'crops of the season of the first rains' (Kootstra, 2023, pp. 272–273), a collective. Given the spelling as *ḥrp* in P.Yadin 1:21,26, P.Yadin 7's spelling *ḥrwp* may represent the epenthetic vowel in an originally monosyllabic word, **ḫurup* < **ḫurp* (Beyer, 1984, pp. 112–115); compare the generally Judean Aramaic orthography of P.Yadin 7 as a whole, which allows for this kind of plene spelling of short **u*. The other possible example of a broken plural is found in the recurring expression *ʾṣdq bʾṣdq*, if this is interpreted as 'an heir among (the) heirs', presumably to be vocalised as **ʾaṣdaq bi-ʾaṣādiq*. This is supported by the use of *ʾṣdq* as a collective in *ʾṣdq-h* 'his heirs', *ʾṣdq-hm* 'their heirs' (Cantineau, 1930–1932, vol. 2, p. 139). The closest North Arabian parallel of this word, however—once again in Dadanitic—attests not a broken plural, but a sound plural *ʾṣdqn* (Kootstra, 2023, p. 255). The expression might alternatively be understood as repeating the singular, perhaps meaning 'an heir qua heir', with the use of the preposition *b-* in the sense of 'as' also known from Biblical Hebrew (the *beth essentiae*; Joüon & Muraoka, 2006, § 133c), although this is otherwise unattested in Aramaic and Arabic alike (but perhaps

[16] Al-Jallad (2022) finds evidence for nominal wawation in the Arabic lines of the En Ovdat inscription, on *ʾlmwtw* 'death' and *grḥw* 'a wound'. But it is also possible to take these *w*s as cases of *waw apodoseos*, introducing the apodosis of a conditional sentence, and attach them to the following word, reading instead *wkn … ʾlmwt w-lʾ …* 'and if death …, (then) … will not …' and *wkn … grḥ w-lʾ …* 'and if a wound …, (then) … will not …' (thus Kropp, 2017).

[17] Al-Jallad (2022) also notes *dkyrw* 'remembered be' from an inscription that also contains *bṭb-w*, but given the plural subject, this is the expected Aramaic form, **dakīrū*.

[18] Al-Jallad (2022, p. 97) argues that it would be 'a rather elaborate practice with no practical value' to maintain a scribal convention of writing silent *-w* on originally triptotic Arabic names, but not on originally diptotic ones (i.e., those formed with the suffixes **-ān-* or **-at-* or based on certain patterns like**CuCaC-*). On p. 100, however, he suggests that such a scribal convention was exported, together with the Nabataean script, to scribes writing other forms of Arabic which did not feature the **-u* or **-ū* ending. If it is feasible that this convention was learned at a later point in time, it should also be feasible that a silent *-w* was used in this way by the Nabataeans themselves.

cf. the use of *bi-* as a negative predicate marker; Van Putten, 2022, § 4.10).

4.3 | Stem-final **y*

Two Arabic feminine suffixes, which occur in Classical Arabic as *-ā* (*ʾalif maqṣūrah*, also *-ē* in some reading traditions, as in *ʾiḥd-ā* or *ʾiḥd-ē* 'one [f.]') and *-āʾ* (*ʾalif mamdūdah*, as in *bayḍ-āʾ* 'white [f.]'), can be reconstructed for Proto-Arabic as containing a final **y* (Van Putten, 2018). In other words, Classical Arabic *-ā* or *-ē* and *-āʾ* (in these suffixes) correspond to Proto-Arabic **-ay-* and **-āy-*, respectively. The former, *ʾalif maqṣūrah*, shows the same contraction of **-ay-* with a following vowel seen, for instance, in III-weak verbs like **banaya* > *banā* (or *banē*) 'he built', while the latter, *ʾalif mamdūdah*, shows the same shift of **y* to *ʾ* between *ā* and a following vowel as **samāy-* > *samāʾ-* 'heaven' (Van Putten, 2017).

-ay, *-ā*, *-ē*, and *-āy* are all permissible word endings in Aramaic.[19] In principle, Nabataean Aramaic could thus have borrowed either the Proto-Arabic forms or those matching Classical Arabic without subjecting them to phonological integration, with the exception of **-āʾ*, which could easily have been borrowed as *-ā*. The forms in which words with these suffixes appear thus probably reflect how they were pronounced in the source language.

For words in **-ay-*, the most important evidence comes from two divine names. *Dusares*, the name of the chief Nabataean god, finds a clear etymology in the Hismaic phrase *ḏ s²ry* 'the one of the Shara (mountains near Petra)' (Macdonald, 2000, p. 48), suggesting an original pronunciation as **ḏū śaraya* (**-a* being the diptotic genitive ending). In Nabataean Aramaic, the name is well attested as *dwšrʾ*. This is commonly transcribed as Dushara (e.g., Healey, 2001), but the Greek form Δουσαρης and Latin *Dusares* (Niehr, 2006) suggest that it was rather pronounced **dūśarē*; final **-ē* is regularly spelled with *-ʾ* in Nabataean, as in *yhwʾ* for **yihwē* 'he will be'. Like some varieties of Classical Arabic, the variety from which the name entered Nabataean Aramaic thus seems to have shifted the **-ay-* suffix to **-ē*. In the same way, the goddess **al-ʿuzzay-* 'the most mighty', written in Nabataean as *ʾlʿzʾ*, probably shows the same contraction. The Aramaicised form *ʿzyʾ* shows morphological integration into the class of Aramaic nouns and adjectives ending in *-ē*, which changed their final vowel to *-ay-* before suffixes (e.g., Classical Syriac *måre* < **mārē* 'lord [absolute/construct]', *måryå* < **māray-ā* 'the LORD').

Two fourth-century funerary inscriptions from Dadan and Hegra attest the word *ʾḥdy* 'one (f.)' (Cantineau, 1930–1932, vol. 2, p. 32; Stiehl, 1970). This reflects Arabic **ʾiḥday-* instead of Aramaic **ḥadā*. The spelling could indicate a pronunciation as **ʾiḥdē*, with contraction of the suffix; *-y* is not commonly used to write **-ē* in older Nabataean, but the later of the two inscriptions also shows an innovative spelling in *ryš* for **rēš* 'chief', normally spelled *rʾš*, as mentioned above. Alternatively, this word could have been borrowed from a variety of North Arabian that retained the **y* in **ʾiḥday-* and similar words, unlike the source of **dūśarē* and **al-ʿuzzē*.

Unlike in **-ay-*, the **y* in **-āy-* seems to have been preserved in the variety or varieties of Arabic that Nabataean Aramaic was in contact with. The meager evidence is limited to the word *ʾkry* 'lease', a Stem IV verbal noun (*maṣdar*) from the root *k-r-y*. Based on the spelling, the source word seems to have been something like **ʾikrāy-*, a more conservative form than its Classical Arabic cognate, *ʾikrāʾ*. Another example may come from the place name Tayma, which is spelled *tymy* in a third-century inscription (Al-Najem & Macdonald, 2009), probably reflecting **taymāy-*; cf. Classical Arabic *taymāʾ*. The spelling *tymʾ* occurs in one of the later inscriptions just mentioned (Stiehl, 1970), but we cannot be sure whether this shows the **-āy-* to **-āʾ-* shift at work or whether this reflects the normal and well-attested Aramaic (and Taymanitic, *tmʾ*; Kootstra, 2016, p. 131) form of the name.[20]

4.4 | Verbal syntax

In a few inscriptions, we find ostensibly singular verbs with plural subjects, as in *ʾqym … ʿmrm wʿšmw ʾḥwhy* 'PN and PN his brother(s) erected (m.sg.)' (Al-Najem & Macdonald, 2009) or *qrb bny ntnw* 'the children of PN offered (m.sg.)' (Al-Salameen, 2014). This would appear to reflect the Classical Arabic rule that verbs preceding their subjects do not inflect for number (cf. Bettega & D'Anna, 2022, p. 163) but use the singular by default (e.g., *qāla l-riǧālu* with a singular verb vs. *ʾal-riǧālu qālū* with a plural verb, both 'the men said'). Other explanations are also possible, however. In both cases, we could be dealing with a graphic reflection of the loss of unstressed word-final **-ū* also seen in other forms of Aramaic, discussed above. The first example could also reflect agreement with the first name only, as with *qrbt ʾmtlh wtymdwšrʾ* 'PN (f.) and PN (m.) offered (f.sg.)' (Al-Salameen & Shdaifat, 2014). Moreover, the verb in the second example could be abbreviated, given the spelling of *mnr* for what must be *mnrtʾ* 'the lamp' (as written out in full in Al-Salameen & Shdaifat, 2014) earlier in the

[19]Cf. **hway* 'be (f.sg.)', **hawā* 'he was', **yihwē* 'he will be', and the adjectival suffix **-āy*.

[20]Note also Safaitic *tmʾ* in QSE.B 7, http://krc.orient.ox.ac.uk/ociana/corpus/pages/OCIANA_0036019.html. I thank Ahmad Al-Jallad for this reference.

TABLE 2 Likely and possible Nabataean loanwords from North Arabian.

Nabataean	Meaning	Arabic or Dadanitic source
ʾḥr	'posterity'	*ʾāḫir* 'latter' or Dadanitic *ʾḫrt*?
ʾkry	'lease'	**ʾikrāy-*
ʾl	'tribe'	*ʾāl*
ʾṣdq	'(legitimate) heir'	Dadanitic *ʾṣdq*?
ʾṣl	'real property'	*ʾaṣl* 'root'
gt	'cadaver'	*ǧuṯṯa*
gn	'concealed'?	*ǧinn* 'concealment'
blʿwnyn	'attainments'?	*balaġa* 'to attain'
wgr	'rock tomb'	*waǧr*
**wdʾ*	'wadi'	*wādī*
wld	'children, posterity'	*wuld*
**wʿrh*	'cragland'	*waʿra*
wṣp	'to describe'	*waṣafa*
ḥdd	'boundary'	*ḥadad*
ḥṭyʾh	'(amends for) sin'	*ḫaṭīʾa*
ḥlyqh	'custom'	*ḫalīqa*
ḥlṣ	'clearance'	*ḫalāṣ*, Dadanitic *ḥlṣ* 'to be released'?
ḥr(w)p	'early crop'	Dadanitic *ḥrf*
tpṣ(?)	'to take for oneself'	*iftaṣṣa*
ṭrq	'to prepare'	*ṭaraqa* 'to hit'
kpr	'tomb'	Dadanitic *kpr*?
lʿn	'to curse'	*laʿana*
mlk	'property'?	*mulk*
mnh	'gift'?	*minna* 'boon'
mʾnmyn	'profits'	*ġanama* 'to take spoil'
nbʿ	'revealed'?	*nabaġa* 'to appear'
nšyb	'father-in-law'(?)	*nasīb-*
**ʿdw*	'seizure'	**ʿadawa* 'to seize'
ʿyr	'to alter'	*ġayyara*
ʿyr	'other than'	*ġayr*
ʿlyyn	'upper stories'	*ʿulliyya* 'upper chamber' or *ʿaliyy* 'high'
ʿṣh	'thorny trees'?	Arabic *ʿiḍāh*
ʿrp	'to acknowledge'	*ʿarifa* 'to know'
plq	'to apportion'	*falaqa* 'to split off'
**ṣnʿh*	'crafted article'	*ṣanaʿa* 'to make'
ṣryḥ	'hall, chamber'	*ḍarīḥ*
qšm	'portion'	*qism*
rhn	'to pledge'	*rahana*

TABLE 2 (Continued)

Nabataean	Meaning	Arabic or Dadanitic source
šlw	'bony remains'	*šilw* 'body, remains'
**šplyn*	'lower stories'	*sufl* or *sifl* 'lowest part'
tbt	'soundness'	*ṯabata* 'to be firm'
tmn	'price'?	*ṯaman*
tʿyn	'specification'	*taʿyīn*
tṣdyq	'agreement'	*taṣdīq*

same line.[21] Thus, Nabataean Aramaic does not offer any conclusive evidence for number incongruence in verbs of the kind later reflected in Classical Arabic.

As noted in Section 2.3, one inscription attests the use of a short imperfect after *dy* 'that', possibly reflecting the use of the Arabic subjunctive after a conjunction like *ʾan* (Alzoubi & Smadi, 2016).

Finally, the most securely attested case of a feature of the verbal syntax that may have been borrowed from Arabic is the optative use of the perfect. In Section 2.3, I have argued that this may well have been borrowed as part of the frequent expression *lʿn* 'may … curse'.

4.5 | Lexicon

Cantineau (1930–1932, vol. 2, p. 172) lists some possible loanwords from Arabic. He marks the words that seem Arabic but have no directly attested counterpart as possible borrowings from Liḥyanite (i.e., Dadanitic; see Macdonald, 2000, p. 33). Based on a more thorough comparison to related Aramaic words, O'Connor (1986) convincingly argues that there is no reason to assume loanword status for *ʾlp* 'to compose', *gbʾ* 'well, cistern', *gwḥ* 'tomb, loculus', *gr* 'client', *ḥlt* 'aunt',[22] *ḥrb* 'to destroy', *nsḫt* 'copy',[23] *pṣṣ* 'to break', *qṣr* 'cella', *šʾryt* 'remainder',[24] or *štr* 'document'. Furthermore, he eliminates the words that are only attested in the epitaph of Raqosh (JSNab17), which is arguably written in Arabic or a mixed Arabic–Aramaic (pp. 221–227). This excludes *wld* 'offspring' (also attested, however, in the papyri), *hlk* 'to die', and *ṣnʿ* 'to make'. *ʿyr* 'another' is treated as a grammatical borrowing by Cantineau but included as a lexical borrowing by O'Connor. Butts (2018) additionally suggests *ḥlyqh* 'custom', Arabic *ḫalīqa*. Some 60 more loanwords attested in

[21] Al-Salameen (2014, p. 65) does not discuss this possible abbreviation, but in context it is clear that at least the definite article -ʾ is missing, considering the preceding (feminine!) demonstrative *dʾ* 'this'.
[22] *Sic*; in the rest of this list, O'Connor mostly cites the words in the absolute state, so **ḥlh* would be expected. Macdonald (1999, p. 277) dismisses the Palmyrene attestation of this word as itself being a borrowing from Arabic or Ancient North Arabian, which would rehabilitate it as a loanword in Nabataean.
[23] Expected absolute state: **nsḥh*.
[24] Expected absolute state: **šʾry*.

the papyri are suggested by Yadin et al. (2002) and Yardeni (2014); Suchard and Kjær (forthcoming) eliminate half of these. By combining the loanwords they judge probable or possible with those identified in the inscriptions, we arrive at the list given in Table 2.

5 | CONCLUSION

Good arguments can be found to support the spoken use of both Arabic and Aramaic in the areas once ruled by the Nabataean kingdom. The primary interaction between these languages seems to have been the exchange of loanwords. As a result, Nabataean Aramaic can serve as an early witness for certain Arabic nouns, verbs, and the occasional particle, but does not provide a direct window on Arabic as it was spoken at the time. Indirect evidence for Arabic grammar is sometimes available in the way in which these loanwords were borrowed: we have seen evidence for a somewhat retracted realisation of /s/, for contraction of *-*ay*- but retention of *-*āy*-, and, less securely, hints of broken pluralisation, verbal number incongruence, and the use of the subjunctive.

Many of the attested loanwords and grammatical features are only attested once or twice due to the limited and largely formulaic nature of the corpus. In many cases, this leaves room for explanations that do not rely on Arabic influence, further limiting what we can deduce about Arabic from the Nabataean evidence. The great frequency with which Nabataean texts continue to be discovered and published, however, remedies this to some degree; note that several of the features discussed above are attested in texts that were only published during the last decade. We may therefore reasonably hope—and even expect—that our view on Pre-Islamic Arabic as filtered through Nabataean Aramaic will only grow clearer.

6 | SIGLA

1. CIS II: Corpus Inscriptionum Semiticarum, part 2: Aramaic, Palmyrene, and Nabataean inscriptions.
2. CIS V: Corpus Inscriptionum Semiticarum, part 5: Safaitic inscriptions.
3. H: Inscriptions from Hegra in Healey (1993).
4. JSNab: Nabataean inscriptions in Jaussen & Savignac, 1909–1922).
5. RIM.A: The Royal Inscriptions of Mesopotamia, vols 1–3.

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DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analysed in this study.

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