The imperfect pattern in Ancient South Arabian languages

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Introduction

In Ancient Yemen, described by the Greek geographer Ptolemy as *Eudaimon Arabia* (Latin: *Arabia Felix*) "Fortunate Arabia", four Semitic languages were spoken: Sabaic, Minaic, Qatabanic and Ḥaḍramitic[1]. These languages corresponded roughly with the kingdoms of Saba/Ḥimyar, Ma'in, Qatabān and Ḥaḍramawt. Traditionally, these languages have been treated as one linguistic group: Ancient South Arabian (ASA). However, are they really a homogeneous group? And how should this "group" be classified within the Semitic language family?

Debate

The latter question was initially answered by early Semiticists, e.g. Nöldeke (1899; 1911) and Brockelmann (1908-1913), by its ancient location as well as shared linguistic features[2]. Yemen in the southern part of the Arabian Peninsula is located closely to Ethiopia. Since Ethiopian languages and Modern South Arabian languages were classified as South Semitic and ASA shares some features with them, the language group was classified as South Semitic.

However, Nebes 1994 discovered that there is a solid morphological ground to classify ASA as Central Semitic (see 1.2.3) by researching the imperfect pattern of hollow roots in Sabaic, an ASA language with the biggest corpus. Nebes discovered that the presence of a W/Y in an imperfect form indicates the non-Central Semitic pattern *yVqattVl, whereas absence of W/Y pointed to a Central Semitic *yaqtulu, since the second radical behaved like a vowel. Additionally, he provided some examples of Minaic, Qatabanic and Ḥaḍramitic inscriptions that would indicate the same classification of these languages as Sabaic, although he was aware of the small corpus of those languages. Since Nebes 1994, Semiticists have adopted the idea of the classification of ASA as Central Semitic based on its imperfect pattern, e.g. Huehnergard 2005, 160–161:

> Nebes demonstrated that none of the languages for which there is sufficient evidence — Sabaean, Minaean, Qatabanian — exhibits the form *yVqattVl*; the imperfective form of the verb is, instead, *yaqtulu*. […] It also means that none of these languages can be the ancestor of either the Modern South Arabian languages or the Ethiopian Semitic languages.

Exogenous origin?

Two linguists[3] have proposed an exogenous origin (i.e. an origin outside Yemen) of ASA language and culture. According to them, a large migration from Palestine at the end of the 2nd millennium BCE took place into Yemen. This would have caused the rise of ASA cultures. Garbini (2004; 2006) assumes this mainly based on the history of the script. According to him, the alphabetical order of ASA is a North-western creation and, therefore, that region is the origin of the ASA culture. I agree with Avanzini (2009, 208) that script nor language is

[1] The language of Ḥimyar, a tribal confederation in the southern highlands of Yemen, which is mentioned by Arab authors, should be classified as a southern dialect of Sabaic. Its linguistic features correspond with the ones of Late Sabaic (Stein 2020, 338).
[2] Cf. Huehnergard & Rubin 2011, 260.
[3] Garbini 2004; 2006, 235–244; Nebes 2001.

formally a criterion to reconstruct the history of an ethnic group, since they can be spread to other ethnic groups as well. Mazzini 2005 and Avanzini 2009 present an endogenous origin of ASA. Their main arguments are the archaeological evidence that there was a continuing habitation of the Southern Peninsula far beyond the 2nd millennium BCE and the improbability of enormously large groups of people migrating through the desert.

Contrarily, Nebes' (2001) exogenous origin theory is mainly based on linguistic arguments concerning Sabaic-Canaanite isoglosses. These language features could support the idea of "Proto-South Arabians" who migrated to the Southern Peninsula from Syria-Palestine[4]. The drawback of this hypothesis is that ASA is seen as different dialects of one language. Since much of Nebes' arguments are based on Sabaic, this offers a confined view of ASA.

However, a more recent study by Kottsieper & Stein (2014) conclude that Sabaic and Aramaic share more isoglosses than Sabaic to non-Sabaic ASA[5]. Kottsieper & Stein (2014, 85):

> As a result, this means that the origin of the Sabaic language is in all probability to be looked for not in South Arabia, in the area of South Semitic, but further northwards, in the environment that also gave birth to Aramaic.

They argue for a Proto-Aramaeo-Sabaic dialect that was spoken on the north-western fringes of the Arabian Peninsula during the 2nd millennium. A limited group of them (ancestors of Sabaic speakers) must have split off and traveled southwards, arriving in Yemen where the ancestors of the speakers of Minaic, Qatabanic and Ḥaḍramitic already lived. This group could have introduced the script as well (Kottsieper & Stein 2014, 85).

The last hypothesis seems the most likely to me, since it provides a credible answer to the supporters of the endogenous theory. In addition, it explains the linguistic differences with non-Sabaic languages and the isoglosses with Central Semitic languages like Canaanite and Aramaic.

Research question

So, did ASA languages use the same imperfect pattern as Hebrew and Aramaic? In this thesis I will add new linguistic evidence to the discussion of the origins of ASA and its classification. I will verify the Sabaic evidence, but will mainly focus on the imperfect patterns of "the other three" in order to provide an answer to the question: *How should Ancient South Arabian languages be classified according to their imperfect patterns?*

Methodology

Coming from the field of Hebrew and Semitic Linguistics, it was necessary for me to get more acquainted with ASA language, script and culture. Therefore, I have studied the literature on ASA by Stein, Nebes, Avanzini and others. For the chapter on Semitic imperfect patterns I used grammars and publications of the corresponding languages in order to know what

[4] This hypothesis is thoroughly discussed in Mazzini 2005, 223-225.
[5] For detailed linguistic arguments see Kottsieper & Stein 2014, 81-87.

patterns of the prefix-conjugation could be expected in ASA and how to put the results into Semitic perspective.

For the reconstruction of the imperfect pattern of the four ASA languages I used mainly the same methodology as Nebes (1994): G-stem imperfects of hollow roots showing W/Y as a second radical indicate the non-Central Semitic pattern *yVqattVl; absence of the second radical to a Central Semitic *yaqtulu[6]. The details of this methodology are presented in 1.2.3 and 3.1.

For the research of the ASA material I collected data from the CSAI database of the University of Pisa[7]. This database displays more inscriptions than were available in the time when Nebes wrote his theory on the classification of ASA (1994). I used this database to search for hollow root imperfects, jussives and other forms in order to verify Nebes' claims concerning (Non-)Sabaic and to check the scope of examples that support his claims. In the following detailed data analysis I separated the D-stems and jussives from the G-stem imperfects (more on this terminology in 2.1). This resulted in a distribution of 2-W/Y verbs showing a second radical (yCw/yC) and ones without (yCC). Based on these results, I reconstructed the imperfect patterns of the four ASA languages and classified them.

Terminology

I standardize the terminology of the fields of Akkadian, Gəʿəz, Hebrew, Arabic and ASA.

- The stems are called G-/D- and S^1-stem.
- The prefix-conjugation has a historical short form and a long form (cf. Huehnergard 2019, 62). I call the short form "jussive" (with no modal connotation) and the long form "imperfect" (with no tense connotation). These names are purely morphological.

Structure

First, I will introduce the reader to the world of ASA, supplemented by the debate on its classification. The chapter answers the question what defines Central Semitic and on which ground ASA is classified as such.

After that, I will display the imperfect patterns in the main branches of Semitic: Akkadian (East-Semitic), Gəʿəz (Ethiosemitic) and Hebrew (Central Semitic).

Chapter three presents per language the data analysis of the inscriptions I found in the CSAI database. For each language I present a custom devised method, since scarcity of inscriptions demand creativity. Each section on a language will end with an intermediate conclusion with a suggested reconstruction of its imperfect pattern.
These results will be collected and interpreted in order to answer the research question in the last chapter.

[6] Nebes (1994) used other weak verbs as well. However, I mainly focus on 2-W/Y verbs in this thesis to limit the scope, unless additional examples are needed.
[7] Corpus of South Arabian Inscriptions. It contains around 8,400 ASA texts, which are digitized by a team under the direction of A. Avanzini.

1 Introduction to Ancient South Arabian Languages and their Classification

1.1. Ancient South Arabian

Alternative names for ASA are “Old South Arabian”, “Epigraphic South Arabian” and “Ṣayhadic”.

The first name refers to the early attestation of the languages: the languages were spoken and written from the early first millennium BCE until the rise of Islam in the sixth century CE (see 2.1.1. for the periodization). Furthermore, it contrasts the group with Modern South Arabian languages, which are spoken in the bordering area of Yemen and Oman and on the island of Socotra. A genealogical relationship with these languages is debated due to the significant typological differences between the language groups.

The second name defines the language group by the way most of its texts were attested: as inscriptions. More about the script and texts can be found in 2.1.2.

“Ṣayhadic” is a geographical name that is used to designate the abovementioned language group. It refers to the desert of Ṣayhad, around which the ASA civilization had arisen. The territories of the individual ASA languages are treated in 2.1.3.

1.1.1. Periodization

Radiocarbon dating of wooden manuscripts places minuscule writing in the southern Arabian Peninsula in the 11th-10th century BC (Drewes et al. 2013). The first textual evidence of Sabaic and Minaic in Wadi al-Jawf is conventionally placed in the 9th c.BC; probably soon followed by Qatabanic and Ḥaḍramitic (Stein 2020, 338). Roughly indicated, an ASA language ceases to exist after the fall of the corresponding kingdom: Minaic around the 1st century BC; Qatabanic in the late 2nd c.AD; exceptionally, Ḥaḍramitic seems to have been spoken after the fall of its kingdom around 300 AD (Stein 2020, 338); Sabaic was productive until late 6th c.AD[8].

1.1.2. Script and texts

Sabaic preserved the 29 consonants of Proto-Semitic most completely (Stein 2020, 345). These consonants (vowels are not indicated) were written in a unique Ancient South Arabian script from right to left or in boustrophedon (Stein 2020, 344). An example of such a text is shown in illustration 1. ASA texts were written as inscriptions on rock surfaces, stone blocks and on bronze tablets. These texts served usually as votive or dedicatory inscriptions, building inscriptions, legal texts, commemorative texts, letters and texts from cult practice

[8] Sabaic itself is traditionally divided into three periods: Early Sabaic: 10th-4th c.BC; Middle Sabaic 3rd c.BC-3rd c.AD; Late Sabaic: 4th-6th c.AD. (Stein 2020, 338). Each stage can be recognized by its distinctive linguistic features.

(Stein 2013, 21). Beside these inscriptions, a great part of the ASA corpus consists of graffiti, solely showing names. In total, the number of ASA inscriptions is around 12,000 texts and fragments (Stein 2020, 341). The CSAI database has published roughly 5,000 Sabaic, 1,400 Minaic, 1,800 Qatabanic and 900 Ḥaḍramitic inscriptions.

Illustration 1: *as-Sawdāʾ 55 RES 4668* (source: CSAI) was found in a tomb.

Apart from the formal inscriptions, a very small number of minuscule texts have been found. These texts were written in a cursive variant of the Ancient South Arabian script on wooden sticks. The daily life of South Arabian individuals is much more reflected in these texts, since they are less formal, containing "letters, legal and economic documents such as contracts between private individuals, as well as writing exercises and records from religious practice" (CSAI). Illustration 2 shows an example of a minuscule text.

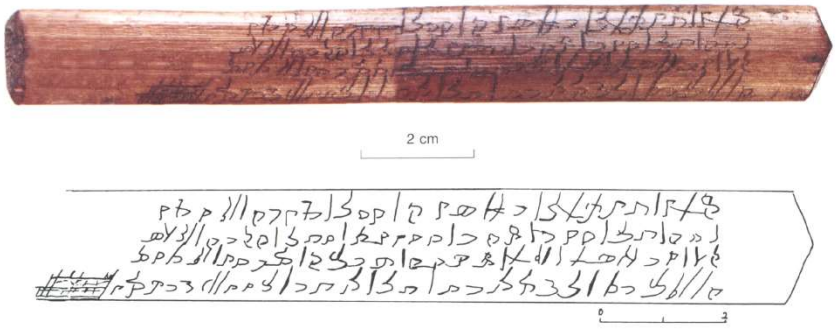

Illustration 2: *YM 11743* (source: CSAI). This legal text on a wooden stick is engraved in the ASA cursive script. The script deviates from the monumental script (compare illustration 1), but is derived from it.

1.1.3. Territory

The languages Sabaic, Minaic, Qatabanic and Ḥaḍramitic are named after the tribal confederations their speakers belonged to, respectively Sabaʾ, Maʿin, Qatabān and Ḥaḍramawt[9] (Stein 2020, 337). As is shown in illustration 3, the Sabaeans were located from Northwest Yemen to South Yemen; the Minaeans shared territory with the Sabaeans in

[9] It is unknown how the speakers of ASA called their own language (Stein 2020, 337).

Northwest Yemen, although Minaic inscriptions have been found as far as in Egypt and the Greek island of Delos[10]; the people of Qatabān lived in Central Yemen and the Ḥaḍramawt kingdom was located in the east of Yemen.

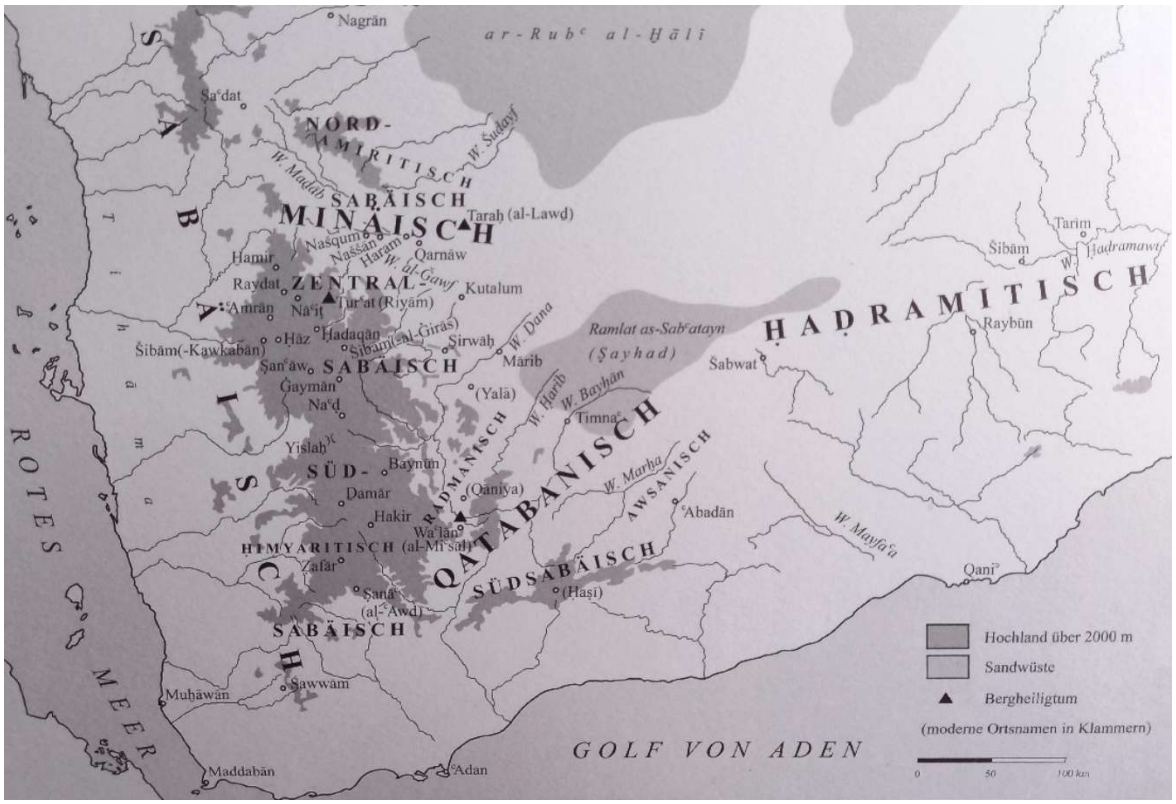

Illustration 3: map of Ancient South Arabian; copied from Stein (2013, book cover).

1.1.4. The question of homogeneity

It is important to note that ASA languages are no homogeneous language group, although they are often referred to as one.

ASA had been regarded as a linguistic unity based on non-linguistic and linguistic arguments. For example, the languages were spoken in geographical proximity of each other and the unique ASA script is used by all four languages. Furthermore, in all four languages the 1st and 2nd person perfect is formed with *-k* and broken plurals are extensively used. However, all these features can be explained as areal or contact features (Huehnergard and Rubin 2011, 271–274).

By comparing phonology, morphology and lexicon it became apparent that ASA is no linguistic unity. For example, whereas Minaic, Qatabanic and Ḥaḍramitic use the *s*^{1} in personal pronouns and the causative stem (*s*^{1}*m*, *-s*^{1}, *s*^{1}*fʿl*), Sabaic uses *h* in these cases (*hmw*, *-h*, *hfʿl*) instead, just as in Northwest Semitic except for Ugaritic (see 2.2.1.).

[10] E.g. a marble altar with Minaic and Greek inscriptions (M 349) is found on the island of Delos. Illustrations can be found on http://mnamon2.sns.it/index.php?page=Immagini&id=27&img=979&lang=en.

Another example from phonology is the merger of Proto-Semitic *ṯ and *s^3 to s^3 in Ḥaḍramitic (see Suchard 2017, 70); a sound law that is not present in the other three languages. In chapter three we will encounter some differences in verbal morphology as well. An example in advance is the formation of the Qatabanic imperfect with a prefixed *b*-. Finally, Kogan (2015, 601) carefully concludes:

> Central Semitic lexical features, relatively well attested in Sabaic, are less common (if not totally lacking) in the non-Sabaic languages, but this restriction may well be due to a much more fragmentary documentation.

Avanzini (2009, 211-212) provides more examples of linguistic features that differ between ASA languages —NB. the imperfect pattern is not listed, since Avanzini agrees with Nebes that a *yaqattal* pattern is absent in all ASA languages. Additionally, she offers two explanations for the common isoglosses and differences of them. The first is the "Sabaeization" (i.e. making different languages more homogeneous to Sabaic) of non-Sabaic languages, because of the great cultural prestige of (probably) Saba. She dismisses this explanation by claiming that this Sabaeization was secondary, based on onomastic evidence. The latter explanation is what she calls "a purely heuristic model", namely a long period of "Proto-ASA" within Yemen that is the ancestor of the attested ASA languages. Although a proto-language normally refers to a non-attested, reconstructed language based on attested daughter languages, Avanzini uses the term for "languages and dialects in contact within an area". This hypothesis does not make a distinction between the presumed conservative ASA languages and the "newly arrived" Sabaic. Hence, Avanzini explains the linguistic differences in ASA within Yemen, in order to avoid a Sabaic migration. In my opinion, this hypothesis is clearly lacking the evidence from the ASA imperfect patterns, which could still point to a possible migration of Sabaic into Yemen.

1.2. Semitic Classification

1.2.1. Semitic language family

Ancient South Arabian languages belong to the Semitic language family, which is traditionally visualized as a language tree (see illustration 4), based on linguistic isoglosses. This representation is not the most suitable for this language family (see e.g. Huehnergard & Rubin 2011), however, this visual medium provides a clear overview of the classification.

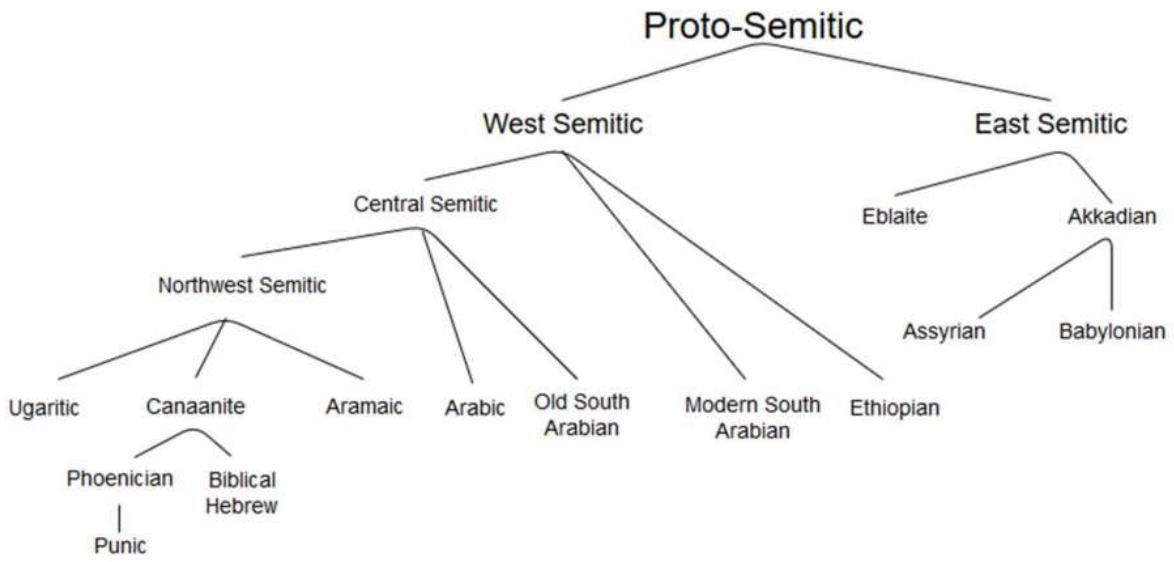

Illustration 4. The Semitic family tree based on the modifications of Hetzron's model (1976) by Nebes (1994) and Porkhomovsky (1997).

Traditionally the ASA languages have been placed under the flag of South Semitic, which corresponds more or less with West Semitic minus the branch of Northwest Semitic in illustration 4[11]. After Nebes (1994), ASA has been classified as Central Semitic.

The Semitic language family has been connected with language (families) such as Berber, Egyptian, Cushitic and Chadic in a language family called Afro-Asiatic. Since this field is more speculative and less relevant for this thesis, I will leave this aside, apart from one relevant verbal pattern of Berbero-Semitic, which will be discussed in 1.2.2.

1.2.2. Features of Central Semitic

What defines Central Semitic? Hetzron (1976) mentions three innovations of this branch of Semitic that contrast with East Semitic and non-Central Semitic West Semitic.

Firstly, the generalization of *-t-* in verbal suffixes of the perfect (Hetzron 1976, 93-94). The Akkadian stative shows *-k-* in the 1.c.sg. and *-t-* in the 2.m.sg. Arabic, Hebrew and Aramaic

[11] E.g. Nöldeke 1899, 1911; Brockelmann 1908-1913; and Hetzron 1976.

display -*t*- for other persons as well, whereas Gəʿəz (called "Ethiopian" together with other Ethiosemitic languages in Hetzron 1976) generalizes -*k*-. However, it may be possible that these innovations were not inherited from a common ancestor, but arose independently, spreading by areal/contact waves. Therefore, we must be cautious to use this as an argument for defining a genealogical branch of Semitic (see Huehnergard & Rubin (2011)).

Secondly, Hetzron (1976, 94-95) mentions that Central Semitic generalized the same vowel for verbal prefixes in one verb. As is visible in Table 1.a (copied and adjusted from Hetzron 1976, 94), Akkadian shows a heterogeneous paradigm with -*a*- and -*i*-; Arabic generalized -*a*- (Canaanite and Aramaic differ due to further phonological developments) and Gəʿəz -*ə*- which can only originate in earlier *-i- or *-u-. However, Huehnergard (2019, 63) is uncertain whether to reconstruct *-a-, *-i- or both for Proto-Semitic, which implies that there is no consensus about the origin of the prefix vowels and that non-Central Semitic languages, in theory, could be innovative as well. Therefore, this isogloss for Central Semitic is not the strongest argument.

	Akkadian	Arabic	Gəʿəz
1.c.sg.	a-	ʾa-	ʾə- (<*i-)
2.m/f.sg/pl; 3.f.sg	ta-	ta-	tə-
3.m.sg; 3.m/f.pl	i- (<*yi-)	ya-	yə-
1.c.pl.	ni-	na-	nə-

Table 1.a.

The third and most important isogloss that separates Central Semitic from other branches of Semitic is the morphological argument that the Central Semitic imperfect is based on the pattern -QTVL-u instead of non-Central Semitic -QaTTVL. Hetzron (1976, 105) argues that -QTVL-u is the innovative pattern, since it is not possible to derive -QaTTVL from -QTVL-u, whereas the latter can be derived from the jussive plus "indicativizer" -u/-nV[12]. Hetzron suggests that the quasi-homophony of the imperfect and the D-stem (also indicated with a geminated second radical) lead to the morphological innovation.

Huehnergard reconstructs the non-Central Semitic imperfect base -QaTTVL as one out of three finite verb patterns in Proto-Semitic[13]. In Proto-Semitic, -QaTTVL designates imperfectivity or non-anteriority (Huehnergard 2019, 62). Huehnergard confirms that this form was lost in Central Semitic and replaced by a new form. Namely, the short prefix conjugation with a set of endings indicating subordination: *-u/*-na (cf. Hetzron 1976, 105, which calls this suffix an "indicativizer" instead of a subordination marker). This form "was reanalyzed as a new marked imperfective form, a form that completely replaced the inherited PS form *jiðakkar" (Huehnergard 2019, 72).

Counterarguments involving -QaTTVL as Proto-Semitic are: 1. The absence of -QaTTVL in Central Semitic; and 2) the formal differences between the Akkadian and Ethiosemitic forms (Kouwenberg 2010, 117–125).

[12] The ending -*u* is used after a consonant and -*n*V after a long vowel (Hetzron 1976, 105).
[13] The other two are the imperative ($C_1C_2VC_3$) and the short imperfect ($C_1C_2VC_3$), which is unmarked for TAM categories (Huehnergard 2019, 62).

The former argument can be dismissed, when one is willing to accept that Central Semitic was innovative in replacing the Proto-Semitic imperfective with the jussive form plus indicator of subordination. The latter argument can be resolved with the help of Modern South Arabian in which the problems with derived stems and quadriliteral roots do not occur and which reconstructible forms are rather similar to the ones in Akkadian (Kossmann & Suchard 2017, 45). This makes -QaTTVL safe to reconstruct for Proto-Semitic, since this pattern is found both in East and West Semitic.

The argument that -Q*a*TTVL is a Proto-Semitic imperfective can even be strengthened by the article of Kossmann & Suchard (2017), in which they reconstruct the system of verb aspects in proto-Berbero-Semitic. In this article it is argued that Proto-Semitic imperfective *yV-PaRRaS is a perfect match in form and value with Proto-Berber *y-əFăRRăS (Kossmann & Suchard 2017, 44-45). The Berber value is imperfective and matches the Akkadian semantic domain (see 2.3.3), solely lacking the use for future events (Kossmann & Suchard 2017, 45).

Therefore, -QaTTVL is not only the default Semitic imperfective, but can also be traced back to proto-Berbero-Semitic. It is safe to conclude that the innovation -QTVL-u is a solid morphological isogloss for the concept of Central Semitic.

1.2.3. ASA classified as Central Semitic

Given the location of the language area of ASA and its proximity to Ethiosemitic and MSA, it is not surprising that ASA was traditionally classified as South Semitic by e.g. Brockelmann 1908-1913 (28-30) and Hetzron 1976 (101). Linguistically, it was probable as well, since ASA shares the isogloss of the generalization of verbal suffix *-k-* in the perfect with Ethiopian and MSA languages (Stein 2020, 349); see the discussion in 1.2.2.

Nevertheless, Nebes (1994) has convincingly argued that Sabaic should be classified as Central Semitic, based on its imperfect pattern -QTVL. Since then, ASA is classified as Central Semitic. Nebes used weak verbs like 2-W/Y to investigate whether the second radical was reduplicated or not (Nebes 1994, 61). This type of weak roots (e.g. the root KWN “to be”), does show a W/Y, when it is reduplicated (e.g. *ykwn*). Such a form could theoretically be a G-stem imperfect of the non-Central Semitic *yV-QaTTVL or a jussive/imperfect D-stem. Interestingly, the Sabaic data displayed forms of the type *ykn* (Nebes 1994, 74-75), showing vocalization of the second radical, being a feature of 2-W/Y verbs. Therefore, *ykn* corresponds with the Central Semitic imperfect *yaqtulu and exclude the existence of an imperfect of the type yV-QaTTVL.

In his article, Nebes briefly addresses the imperfect pattern in other ASA languages, but was not able to draw solid conclusions on this, since the data was too scarce. Concerning Qatabanic, he reasoned that its imperfect *b-ykn* cannot be based on non-Central Semitic *yV-QaTTVL, thus should be based on yV-QTVL (Nebes 1994, 75-76). The base yV-QTVL is assumed for Minaic and Ḥaḍramitic as well (Nebes 1994, 77-78).

1.3. Summary

Based on the imperfect pattern *ykn* /yVkūn(u)/ of Sabaic, Nebes morphologically argued that the ASA languages should be classified as Central Semitic (*yaqtulu) instead of non-Central Semitic (*yV-QaTTVL). The latter imperfect pattern can be reconstructed for Proto-Semitic and even Proto-Berbero-Semitic. Therefore, *yaqtulu is a characteristic innovation of Central Semitic. Since inscriptions are more scarce in non-Sabaic, some conclusions are rather cautiously drawn for Minaic, Qatabanic and Ḥaḍramitic.

2 The Prefix Conjugation in Semitic Languages

2.1 Introduction

In order to classify the Ancient South Arabian languages it is necessary to be acquainted with the functions and morphology of the prefix conjugation (especially the imperfect) in other Semitic languages. For this purpose, I will present the prefix conjugation of three distinct branches of Semitic by taking one well-attested language as a model: 1) East Semitic, represented by Akkadian; 2) non-Central West-Semitic, represented by Gəʿəz; 3) Central Semitic, represented by (Biblical) Hebrew, occasionally supplemented by Arabic.

Semitic root morphology allows verbs to appear in different stems. The unmarked stem is the G-stem ("Grundstamm"), which is neutral in form and meaning. Another stem that is relevant in this thesis is the D-stem ("Doppelstamm"). The function of this stem differs per language, but in all Semitic languages the stem is characteristically formed with a doubled second radical. This is relevant, because the G-stem imperfect is in some languages formed with a doubled second radical as well and the former forms need to be eliminated from the relevant ASA data in chapter 3.

2.2 Akkadian

2.2.1. Introduction

Akkadian is the most prominent East Semitic language, having Babylonian and Assyrian as its dialects. Old Akkadian names appeared in texts from the 26th century BCE, while connected texts in Old Akkadian were attested from the 24th century BCE onwards. (Huehnergard 1997, xxi-xxii).

2.2.2. Overview of the Akkadian D-stem

The D-stem is characterized by the reduplication of the middle radical and the prefix-vowel *u*- in the durative, preterite and perfect, e.g G-stem: *ip**r**us*, D-stem: *upa**rr**is*.

Huehnergard (1997, 256-258) lists the following possible meanings of the D-stem in Akkadian:

- *Factitive*: e.g. *ruppušum* "to make (something) wide" (G-stem: *rapāšum* "to be(come) wide")
- *Causative*: e.g. *ḫulluqum* "to cause to perish, destroy" (G-stem: *ḫalāqum* "to disappear, perish")
- *Pluralic*: e.g. *ālānīšunu unaqqar* "I will tear down their cities" (G-stem: *ālšu anaqqar* "I will tear down his city")
- *Denominative*: e.g. *ruggubum* "to roof over" (*rugbum* "roof").

2.2.3. Preterite

Huehnergard (1997, 19) describes the meaning of the preterite as follows:

> The Preterite denotes an action seen by the speaker/writer as occurring or having occurred at a single point in time (hence "punctual"). It is therefore best translated as **simple past tense**: *ašku*n "I placed". (In temporal clauses, it may on occasion be rendered by the pluperfect "(when/after) I had placed".)

The root pattern of the preterite is $C_1C_2VC_3$, of which V denotes a short vowel (theme vowel) depending on the root. This root pattern can be adjusted with affixes to specify number and gender.

Preterite	G-stem strong	G-stem 2-W/Y		D-stem strong	D-stem 2-W/Y
		2-W	2-Y		2-W/Y
3.c.sg.	*iprus*	*ikūn*	*iqīš*	*uparris*	*ukīn*
3.m.pl.	*iprusū*	*ikūnū*	*iqīšū*	*uparrisū*	*ukinnū*

Table 2.a. Preterite

Regarding G-stem 2-W/Y, the expected preterite form of the root KWN "to become firm" and QYŠ "to bestow" are respectively ***ikwVn* and ***iqyVš*. However, the combination of semivowel and short theme vowel resulted in one long vowel: /ū/ in the case of 2-W and /ī/ in the case of 2-Y. This sound law (*CWV > *CV̄) is presented by Brockelmann (1908, 186).

The 2-W/Y verbs that are morphologically distinguished in the G-stem (*ik**ū**n* against *iq**ī**š*) are both treated as 2-Y in the D-stem: *ukīn* "he made firm" (from KWN). The plural form is given as well since the following sound law applies: when the stem is not followed by a vowel, but ends with the third radical, the preceding vowel is long, e.g. 3.m.sg. *ukīn*; when the stem is followed by a vowel, the third radical is doubled and the preceding vowel is short, e.g. 3 m.pl. *uk**inn**ū* (Huehnergard 1997, 323).

2.2.4. Durative/Imperfect

Huehnergard's (1997, 98) description of the durative is:

> The Durative describes action that takes place over a period of time (duration; thus, non-punctual, imperfective) or action that has not yet taken place.

Huehnergard categorizes its functions as follows:

- *simple future*, e.g. *warassa ana kaspim inaddin* "she will sell her slave".
- *present tense*, e.g. *ṭuppašu ikannak* "he is selling his tablet".
- *durative/circumstantial*, e.g. *inaddin* "he was giving/he is giving/he will be giving".
- *habitual* (or *customary*), e.g. *inaddin* "he used to give, he gives, he will give (customarily/as a habit)".
- *modal*, including possible action and probable action, e.g. *inaddin* "he may/might/could/can/should/would give".

Durative	G-stem strong	G-stem 2-W/Y		D-stem strong	D-stem 2-W/Y
		2-W	2-Y		2-W/Y
3.c.sg. 3.m.pl.	*išakkan* *išakkanū*	*ikân* *ikunnū*	*iqīaš* *iqiššū*	*uparras* *uparrasū*	*ukān* *ukannū*

Table 2.b. Durative

The durative root pattern is $C_1aC_2C_2VC_3$ (*parrVs*). Again, the V represents the theme vowel. However, with one difference compared to the preterite: when the preterite displays an /u/ as a theme vowel, this can be /a/ or /u/ in the durative. Because of this, Akkadian has four vowel classes: *a-a*, *i-i, u-u* and *a-u* (Huehnergard 1997, 97).

Table 2.b shows that the /a/ between the first and second radical and the doubling of the second radical are characteristic for the durative.

In the G-stem, 2-W shows the following phonological development: doubling the second radical results in **ikawwan*, in which */aw/ monophthongizes to /ū/, resulting in *ikūan*, which contracts to *ikân*. The last contraction did not occur in the 2-Y: **iqayyaš* (*/ay/>/ī/) > *iqīaš.*

Whereas in the G-stem preterite and perfect the long vowels of the hollow roots were maintained, in the durative forms alter because of the following sound law: when the stem is followed by a vocalic ending, the stem vowel is shortened and the final radical doubled (e.g. 3.m.pl *ikunnū*). This sound law is active in the D-stem in general and therefore in the D-stem 2-W/Y as well: 3.c.sg. *ukān* against 3.m.pl. *ukannū*.

2.3 Gəʿəz

2.3.1. Introduction

To gain insight into the system of finite verbs in non-Central West Semitic, the system of Ethiosemitic languages will be examined by investigating the prefix conjugation of Gəʿəz (or: *Classical Ethiopic)*. This Northern Ethiosemitic language was spoken in Eritrea and was the language of the city of Aksum. From around 100 CE the city of Aksum was the center of Ethiopian culture and from the 340 CE the kingdom became Christianized (Tropper 2002, 1). This resulted in the use of Gəʿəz as formal language for e.g. (Christian) literature and administration.

2.3.2. Overview of the D-stem

In Gəʿəz, the D-stem displays the following functions (Tropper 2002, 106):

- *Intensive*: e.g. *ṭayyaqa* "to observe/examine/investigate exactly"
- *Pluralic*: e.g. *ṣallaya* "to pray"
- *Factitive/declarative*: e.g. *qaddasa* "to make holy, to declare holy, to sanctify"
- *Denominative*: e.g. *wassana* "to border" from *wasan* "border"
- *Lexical*: e.g. *śannaya* "to be beautiful"

2.3.3. Imperfect

Dillmann (2005, 166-167) claims that Gəʿəz has two tenses: the perfect, expressing finished, or completed, action, and the imperfect, expressing unfinished, or uncompleted, action. Tropper (2002, 182-185) connects the imperfect with present tense.

Dillmann (2005, 166) places the imperfect, which expresses unfinished, or uncompleted, action both in the present and the future. Beside the expression of these tenses, the imperfect is used modally to express will and necessity (*können, dürfen, müssen, sollen, wollen, werden* in Tropper 2002, 190).
Furthermore, Dillmann (2005, 169-171) divides the functions of the imperfect as follows:

(1) Future: including relative future and the jussive, called *simple imperfect* by Dillmann, expressing doubtful, uncertain or conditioned future and future of will.
(2) Expression of *that which is coming into being*, but is not completed yet. In this category the present belongs and that which was coming into being in the past.

The latter category is called *an imperfective rendition of the past* by Tropper (2002, 187), including general, habitual or plural (iterative) events of the past.

Imperfect	G-stem strong	G-stem 2-W/Y		D-stem strong	D-stem 2-W/Y	
		2-W	2-Y		2-W	2-Y
3.m.sg. 3.m.pl.	*yənággər* *yənaggə́ru*	*yəqawwəm* *yəqawwəmu*	*yəśayyəm* *yəśayyəmu*	*yəneggər* *yəneggəru*	*yəfewwəs* *yəfewwəsu*	*yəṭeyyəq* *yəṭeyyəqu*

Table 2.c. Imperfect.

The imperfect is recognized by two features: (1) /a/ between the first and second radical; and (2) gemination of the second radical. These features correspond to the Akkadian durative *iparras* (< **yVparras*) (see 2.2.4)

Just as in the D-stem, the W and Y of 2-W/Y G-stem imperfects is a geminated consonant (see Table 2.c). The difference in form between the G-stem imperfect and the D-stem imperfect is the vowel /a/ in the G-stem and the /e/ in the D-stem.

2.3.4. Jussive

The jussive expresses purpose, will or wish (Tropper 2002, 192-193; Dillmann 2005, 173). Tropper (*ibid*.) divides the functions of the jussive as independent in main clauses and dependent in subordinate clauses. In the main clause, the jussive in the first person is used as a cohortative, whereas the second and third person represent the "real" jussive, i.e. expressing purpose, will or wish (Tropper 2002, 192). Prohibition is expressed by the negative particle *ʾi-* together with the second person jussive (*ibid.*). Furthermore, Tropper mentions that:

> Dem nicht-negierten Jussiv kann die affirmative proklitische Partikel la- vorangehen. Relativ häuftig steht la- vor dem Jussiv der 3. Person" (2002, 192).

This *la*-particle can be compared with Arabic *li-yaf'al*.

In subordinate clauses, especially in final and consecutive subordinate clauses, the jussive is used when an intention or a consequence needs to be conveyed. Such a clause is often introduced by *kama* (Tropper 2002, 193-194).
The G-stem jussive is characterized by the /ə/ (< */i/) in the prefix syllable and /ə/ or /a/ in the second syllable. The conjugation is identical to that of the imperfect as is shown in Table 2.d.

Jussive	G-stem strong		G-stem 2-W/Y		D-stem strong	D-stem 2-W/Y	
			2-W	2-Y		2-W	2-Y
3.m.sg.	*yángər*	*yálbəs*	*yəqum*	*yəśim*	*yənaggər*	*yəfewwəs*	*yəṭeyyəq*
3.m.pl.	*yəngáru*	*yəlbásu*	*yəqumu*	*yəśimu*	*yənaggəru*	*yəfewwəsu*	*yəṭeyyəqu*

Table 2.d. Jussive.

The 2-W/Y verbs possess respectively an /u/ and /i/ between the first and third radical, e.g. *yəqum* (QWM). Some verbs show /o/ and /u/ without difference in meaning: e.g. *yəḥor/yəḥur* "he will go". Tropper (2002, 116) notes that /o/ occurs mainly in older manuscripts and /u/ in younger ones.
The strong D-stem in the jussive is conjugated similarly as the D-stem in the imperfect. The only difference is found in the vowel following the first radical: /a/ in the jussive, /e/ in the imperfect.

2.4 Hebrew

2.4.1. Introduction

Central Semitic comprises well-attested languages such as Arabic, Aramaic and Hebrew[14]. As representative of Central Semitic in this section, I have chosen Hebrew, although I have occasionally supplemented it with features from Arabic.

2.4.2. Overview of the Hebrew D-stem

In Hebrew literature the G-stem is called "Qal" and is divided into active (*qaṭal*) and stative verbs (*qatil* and *qatul*). The active D-stem is called "Piʿel". The passive and reflexive equivalents of "Piʿel" are respectively called "Puʿal" and "Hitpaʿel". The Piʿel pattern is $C_1iC_2C_2eC_3$, so including doubling of the second radical.

Traditionally, the D-stem is said to have (only) intensive meaning (Kouwenberg 1997). However, many forms do not fit this meaning. Some extra categorizations are (Joüon & Muraoka 2018, 144-145):

- *Factitive:* e.g. *qiddaš* "to sanctify" (G-stem: *qådaš* "to be holy"); *ʾibbad* "to make someone perish" (G-stem: *ʾåbad* "to perish, disappear")
- *Declarative-estimative*: e.g. *ṭihar*[15] "to declare clean"; *niqqå* "to declare innocent"
- *Pluralic:* e.g. **liqqeq* "to lick" (Judges 7:6, multiple subjects); *qibber* "to inter" (1 Kings 11:15, multiple objects)
- *Denominative:* e.g. *kihen* "to act like a priest"; *dibbɛr* "to speak"

2.4.3. Imperfect

According to Joüon & Muraoka (2018, 337) the imperfect has time value regarding future tense, both time and aspect value regarding present tense, and only aspect value regarding past tense.

The imperfect expresses future tense with any aspect. It can express action that occurred before a future event ("perfect future") as well, e.g. Deuteronomy 7:12 ʿéqɛb tišmʿun "as a reward for the fact that you will have obeyed"[16] (Joüon & Muraoka 2018, 338).

Aspect and tense are connected in the present, where the imperfect denotes either repeated action and general truths (Judges 11:40 "they go (*teláknå*) yearly"; Proverbs 15:20 "a wise son *makes* his father *glad* (*yśammaḥ*)") or durative action (1 Samuel 1:8 "why are you weeping? (*tibki*)") (Joüon & Muraoka 2018, 338-339).

The imperfect is only used in past context for its aspect, namely repeated, habitual (Job 1:5 "Job used to do so always (*yaʿaśɛ*)") or durative action (Genesis 2:6 "a stream was rising (*yaʿalɛ*)").

[14] An elaborate overview is provided in Huehnergard & Pat-El 2019, 5-6 & 9-13.
[15] In Hebrew, gutturals and /r/ cannot be doubled.
[16] Joüon & Muraoka call the perfect future "past future".

Furthermore, the imperfect can express modal nuances as well, such as permission (*can/may*), obligation (*must*) and volition (*want*) (Joüon & Muraoka 2018, 342-344)).

Because of the loss of final short vowels, the imperfect resulted in: **yaqṭulu* > **yaqṭul* > *yiqṭol*. This form is used for active verbs, whereas *yi*$C_1C_2aC_3$ is used for stative verbs.

Imperfect	G-stem strong	G-stem 2-W	G-stem 2-W (2)	G-stem 2-Y	D-stem strong	D-stem 2-W/Y
3.m.sg. 3.m.pl.	*yiqṭol* *yiqṭlu*	*yåqum* *yåqúmu*	*yeb̲oš* *yeb̲óšu*	*yåb̲in* *yåb̲inu*	*yqaṭṭel* *yqaṭṭlu*	*yqomem* *yqom(ə)mu*

Table 2.e. Imperfect.

Brockelmann's (1908, 186) sound law helps explaining the G-stem 2-W/Y: *CWV > *CV̄. Original **yaqwumu* "he will stand up" resulted in **yaqūmu*, resulting in *yåqum.* The same applies for 2-Y: **yaśyimu* > **yaśīmu* > *yåśim* (Suchard 2016, 321). Furthermore, the strong D-stem features, as expected, the doubling of the second radical, but in 2-W/Y verbs the pattern is $C_1oC_3eC_3$ preceded and followed by affixes.

Since the D-stem in Hebrew 2-W/y verbs does not geminate the second radical[17], we must turn to Arabic to complete the picture of 2-W/Y verbs in Central Semitic languages. Fischer (2002, 132) mentions that D-stem 2-W/Y imperfects display the geminated second radical:

- D-stem 3.m.sg. imperfect of QWM: *yuqawwimu*;
- D-stem 3.m.sg. imperfect of ṢYR: *yuṣayyiru*.

Therefore, the pattern of D-stem imperfect of 2-W/Y verbs in Arabic is $C_1aC_2C_2iC_3u$. The vowel of the prefix is /u/.

2.4.4. Jussive

The jussive is used to express volitive mood of the 3rd person, indicating the speaker's wish or will in all nuances (command, advice, prayer etc.). The jussive is in complementary distribution with the imperative of the 2nd person (Joüon & Muraoka 2018, 347-348). Volitivity for the first person is represented by the cohortative.

Because of the loss of final vowels, the jussive cannot be distinguished from the imperfect in most verbal forms, although the meaning could be jussive. The jussive is only visible in the *hifʿil* (Hebrew causative stem), the 2-W/Y verbs and 3-H verbs.

[17] Attested forms such as *qiyyem* "he confirmed" are considered as late borrowings from Aramaic, e.g. Brockelmann 1908, 614; cf. Suchard 2016, 323.

Jussive	G-stem strong	G-stem 2-W		G-stem 2-Y	D-stem strong	D-stem 2-W/Y
3.m.sg.	(*yiqṭol*)	*yåqom*	*ye<u>b</u>oš*	*yå<u>b</u>en*	-	-

Table 2.f. Jussive.

When applying the sound laws encountered in Suchard 2016, the 2-W jussive developed in the following way: **yaqwum* > **yaqūm* > **yaqum* > *yåqom* (imperfect *yåqum*); the 2-Y like this: **yabyin* > **yabīn* > **yabin* > *yå<u>b</u>en* (imperfect: *yå<u>b</u>in).*
The jussive in Arabic displays a short vowel as well: 3.m.sg. *yaqum* (Fischer 2002, 132).

2.4.5. Consecutive imperfect

The consecutive imperfect is similar in meaning to the perfect, since:

> It is mainly used in the sphere of the past for a single and instantaneous action: Waw mainly adds the idea of succession" (Joüon & Muraoka 2018, 361).

This form is common in narratives and beside succession, it was a summarizing and explanatory feature as well (Joüon & Muraoka 2018, 364).

The consecutive imperfect consists of the conjunction /wa/ "and/but" and the jussive with obligatory doubling of the prefix consonant, see Table 2.g.

	G-stem strong	G-stem 2-W		G-stem 2-Y	D-stem strong	D-stem 2-W/Y
Cons.ipf.	*wayyiqṭol*	*wayyå̊qå̊m (wayyå̊qom P)*	*wayye<u>b</u>oš*	wayyå̊*<u>b</u>ɛn*	-	-

Table 2.g. Consecutive imperfect.

3 Data Collection and Analysis

3.1 Introduction

Central to this chapter is the analysis of 2-W/Y imperfects in Sabaic and especially Minaic, Qatabanic and Ḥaḍramitic following the example of Nebes 1994 (see 1.2.3). The latter three languages were not prominently treated in Nebes 1994 and deserve a fresh look to find out what kind of imperfect pattern they used. For each language I used a custom devised method to receive the most results from the corpus.

Nebes (1994) excluded data from his research that had a similar appearance to the Central Semitic imperfect **yaqtulu* (y-CCVC) but were in fact jussives. To separate the "proper" imperfects from the jussives (Gəʿəz: *yəqtəl*), he used the following prescriptions (Nebes 1994, 65-68):

1. All attestations that are modally used in combination with *l-*. This corresponds to the use of Arabic *wa-l(i)-yaqtul*, an apocopate with jussive meaning, and *wa-l(i)-yaqtula,* a subjunctive with final meaning (Fischer 2002, 108-109), and Gəʿəz (*la-*) *yəqtəl* expressing wishes, requests, desires and other modal usages (Dillmann 2005, 173-174). Since the jussive is a distinctive morphological category in Semitic, they should be distinguished from the ASA imperfects.
2. The jussive form *yəqtəl* (Gəʿəz) or subjunctive *yaqtula* (Arabic) is used, when it is preceded by a conjunction (e.g. Gəʿəz *kama* "in order to"). Therefore, Nebes excludes Sabaic *yqtln* forms when they follow a conjunction.
3. Conditional particles and conjunctions precede the Arabic jussive *yaqtul*. Although this construction does not exist in Gəʿəz, Nebes excluded Sabaic *yqtln* forms that share this environment with Arabic.
4. The narrative, a construction describing an enumeration of events in the past, occurs in Sabaic (Stein 2013, 80). Knowing that Gəʿəz uses the morphological contrast between *yəqattəl* and *yəqtəl*, Nebes assumes that the narrative would be constructed in Sabaic with its equivalent of the latter form.

It should be noted that these prescriptions of Nebes do not necessarily mean that (some) ASA languages used the jussive in these positions. For Sabaic there is enough data to analyze 2-W/Y imperfects, but evidence is very scarce for the non-Sabaic ASA languages. For that reason, I included these "excluded" forms in a separate list to display a broader view.

3.2 Sabaic

3.2.1. yCC 2-W/Y G-stem imperfects

In Table 3.a a list of G-stem imperfects of the type 2-W/Y is presented. The aim is not to provide a complete list of these forms in Sabaic, but it contains the roots that Nebes used as examples in his article of 1994[18] and the roots that occur in the data of Minaic, Qatabanic and Ḥaḍramitic which will be encountered in the next sections[19]. Of these roots all the attested forms are shown, so that it serves as a background for the results of the data of the other ASA languages. The forms that were already provided by Nebes (1994) are presented cursively.

The attestations in Table 3.a (next page) indicate that it was common in Sabaic to write 2-W/Y G-stem imperfects as yCC-. This corresponds with Nebes (1994), in which Nebes argues that Sabaic uses the Central Semitic imperfect pattern **yakūnu* instead of non-Central Semitic **yakawwan*. In the latter case, the geminated W would have been visible in script. Therefore, the yCC- imperfects in Sabaic must correspond with the Central Semitic **yakūnu.*

[18] i.e. BYN, FYD, HYʿ, ḪYB, KWN, QWL, QWM.
[19] i.e. ḤWR, KWN, MWT, ṢYD and ṮWB.

Root	Clause	Translation	Type[20]	Inscription	Period
BYN	*ʾwṯn **(y)→bnnn** bynht [nḫl]→[n M](q)ẓm*	*[…] boundary stelae that **mark** the limit between Mqẓm […]* (CSAI)	*CMS*	*CIAS 95.11/j 4 n° 1*	*B*
BYN	hn **ybnn** (ẓ)lʿm	[…] that **they will remove** (?) a payment […]	NMS	Haram 8	C
FYD	*nḫlm ḏ-**yfd** l-hw*	*[…] a palmgrove that **belongs** exclusively to him […] (CSAI)*	*ES*	*RES 4781*	*A*
ḤWR	[Krb]ʾl Byn bn Yṯʿʾmr h[g]z l-Gʾzn w-l-Ḫlb w-l-Ns²n w-l-Mwr ʾl **yḥrn** b-bḍʿ Ṣyḥn bḍʿ (b)ḍʿ l-hmw Ydʿʾl Ḏrḥ	Krbʾl Byn son of Yṯʿʾmr decreed for Gʾzn and Ḫlb and Ns²n and Mwr that **it should** not **be issued** in the territory of Ṣyḥn the tribute that Ydʿʾl Ḏrḥ levied on them […] (CSAI)	ES	YMN 20	A
HYʿ	*ḏ-**th**ʿ**n** bn Nʿṭm ʿdy Mrnwtn*	*[…] that **stretches** from Nʿṭm up to Mrnwtn […] (CSAI)*	*CMS*	*Gr 3*	*C. Conjectural*
ḪYB	*w-bḍʿ b-ʿl-hmw b-ʿm s³lʾ-hmw bqrm w-s¹frtm ḏ-**yḫbw** b-ʿm s³lʾ-hmw*	*[…] and required of them, in addition to their tribute, livestock of large and small size of which **they remained indebted** in addition to their tribute. […] (CSAI)*	*ES*	*RES 3945*	*A*
KWN	*w-ʾf[ql] **yknn** b-hrt-hmw*	*[…] and crops that **will be** on their land […]*	*CMS*	*CIH 392*	*D (?)*
KWN	w-k-ḏ-ʾl **yknn** ls³ʿn-hw((l-s³ʿn-hw)) w-mknt mlkn l-mkrbn ʾḥlk f[... ...]	[…] and that there **will** not **be** for his s³ʿn and the building of the king for the synagogue ʾḥlk […]	LS	Gar Bayt al-Ashwal 1	E
KWN	w-l yḥywn ḏ-l-hw **yknn** ʾbkrb	[…] and may be greeted the one who **is entitled**: ʾbkrb […]	CMS	Ghul B	Ry IVa
KWN	*w-l-hʿnn-hmw ʾlmqh bn l—[ḫb]n((l[ḫy]n)) ((l[ḫm]n)) ḏ-**yknn** byn-hw w-byn ʾṯt-hw*	*[…] and may ʾlmqh deliver them from any further **occurence** of dispute between him and his wife […] (CSAI)*	*CMS*	*Ja 750*	*D. Conjectural*
KWN	[... ...] byt ʿṯtr kl **tknn**|	[…] the house of ʿṯtr, all that **is** there.	CMS	RES 4773	?
KWN	**yknn** ʿml-hmw l-ṣl(ḥ)	[…] and their crops **will be** for prosperity […] (CSAI)	LS	Ẓafār lz10~016	E
QWL	*ʾs²ʿb **yqln***	*[…] the tribes he **will rule** […] (CSAI)*	*SMS*	*Ja 2867*	*D*
QWL	w-kl ql **yqlnn**	[…] and every *qayl* who **will rule** […] (Rijziger 2018)	CMS	SR-Ḥāz 18	D. Conjectural

QWL	w-b-ʾḫyl w-mns²ʾ ʾs²ʿb **yqlnn** bnw Mʿhr w-ḏ-Ḫwln	[…] and by the power and the mobilization of the tribes of which the banū Mʿhr and ḏ-Ḫwln **are the *qayls*** […] (adjusted from CSAI)	SMS	Wādī Ḥarīr 1	C
QWM	*mṯbt s¹mʿ-h **yqmn** Hlkʾmr bn Tbʿkrb bn Ḥs²g w-ʾlw b-ʿm-h(w)*	*[…] as witness of which it **establishes** Hlkʾmr, son of Tbʿkrb, bn Ḥs²g, and those (who are) with him. […] (CSAI)*	*CMS*	*CIH 570*	*B*
QWM	w-w[q]—[m] **yqmn**-hmw ḏ-r(ḥq) w-qrb	[…] and the harm **it causes** them who are far and near […]	ES	CIH 588	A
QWM	b-ḥg rwt-hmy ḏt s¹mʿ **yqmn** ʿmkrb	[…] according to their decision that as notification **will be established** by ʿmkrb […] (CSAI)	ES	RES 4123	A
ṢYD	[... ...] kl **yṣdn** l-h	[…] all he **will hunt** for her […]	CMS	CIH 571	C
ṮWB	w-ʾl ḏ-b-hw **yṯbnn** w-gbʾ	[…] and let nobody **settle** therein or lease (?) […] (Beeston 1952)	CMS	Istanbul 7626	C. Conjectural

Table 3.a.

3.2.2. yCwC 2-W/Y G-stem imperfects

I found several examples of the yCw/yC type as well. Most of them could be dismissed, because I identified them as D-stems.

In Table 3.b (next page) the problematic attestations are presented, followed by a discussion.

[20] Sabaic is subdivided in: ES (Early Sabaic), NMS (Northern Middle Sabaic), CMS (Central Middle Sabaic), SMS (Southern Middle Sabaic), LS (Late Sabaic).

Root	Clause	Translation	Type	Inscription	Period
ḤWR	ln **yḥwr** ʿd(y) Ns²qm	[…] since he **has settled/was allowed to be settled/placed** at Ns²qm. […] (adjusted CSAI)	ES	RES 3656	A
KWN	w-ʾʿlb **ykw←nn** b-h b-mʿbr m←ṯʿd S¹ṭrn ḏ-ʿbrn ←ẓlm	[…] and the ʿlb trees **which are/are established** in it on the side of the share of the bnw S¹ṭrn facing the West […] (adjusted CSAI)	CMS	CIH 611	B
MWT	yʿzln s¹bʿt ywmn bn k-**ymwtn** ḏ-ymw—[t]n	[…] let (that person) be secluded from seven days, in consequence of the possibility that **may die the one who may die** […]/ that **gets killed the one who is put to death** […] (adjusted CSAI)	CMS	CIH 126	B
MWT	yʿzln s¹bʿt ywmn bn k-ymwtn ḏ-**ymw—[t]n**	idem	CMS	CIH 126	B
QWM	b-ḥg ʾlmqh k-ḏ ln qf wṯnn ḏ-s¹ṭrn ʿd qf wṯn Ḥbls¹mʿ ʾl **yqwm** kl ʿlbm b-fnwtn	[…] that from the boundary stela which bears this inscription to the boundary stela of Ḥbls¹mʿ no ʿlb-tree **be planted** by the secondary canal […] (CSAI)	ES	Gl 1520	A

Table 3.b.

The first attestation, yḥwr, in the meaning "to settle" demands an explanation. The G-stem has the meaning "to live; to settle" and the D-stem "to let live, settle"[21]. In the context of this attestation, the meaning of the G-stem is the most appropriate one. That would make this yḥwr a counterexample to Nebes' theory.

All the other attestations in Table 3.b look morphologically like D-stems (in Nebes' theory) as well, because of the visible W. However, such a translation is impossible, since the context does not allow an active D-stem. This could indicate that they are intransitive G-stems.

However, when we compare the context of all these attestations, a passive mode of the D-stem instead of an active one is an alternative to take into consideration. The form *yqwm*

[21] According to the Sabaic Dictionary (sabaweb.uni-jena.de): ḥwr 01 (G-stem) "wohnen, leben; siedeln"; ḥwr 02 (D-stem) "wohnen lassen, ansiedeln".

above is already known as a passive in the translation of CSAI and in the Sabaic Dictionary. In ASA, every stem can be placed in the passive, which is indistinguishable from the active, since vowels are not represented in the ASA script (Stein 2013, 85).

This explanation can possibly be applied to the other examples as well, because their context demands either an intransitive verb (in the G-stem) or a passive transitive verb in the D-stem. These translations of these options are represented below.

	intransitive G-stem	passive transitive D-stem
ln **yḫwr** ʿd(y) Ns²qm	[…] since he **has settled** at Ns²qm.	[…] since he **was placed/allowed to be settled** at Ns²qm. […]
w-ʾʿlb **ykw←nn** b-h b-mʿbr m←ṯʿd S¹ṭrn ḏ-ʿbrn ←ẓlm	[…] and the ʿlb trees which **are** in it on the side of the share of the bnw S¹ṭrn facing the West […]	[…] and the ʿlb trees which **are established/placed** in it on the side of the share of the bnw S¹ṭrn facing the West […]
yʿzln s¹bʿt ywmn bn k-**ymwtn** ḏ-**ymw—[t]n**	[…] let (that person) be secluded from seven days, in consequence of the possibility that **may die the one who may die** […]	[…] let (that person) be secluded from seven days, in consequence of the possibility **that gets killed the one who is put to death**. […]

From the context of *ymwtn* it does not become clear whether the person dies (G-stem) or is caused to die by someone else (D-stem passive). CSAI chooses the former, Beeston (1976) the latter in his translation: "keeping him or herself secluded for seven days from the time of death of someone who is put to death (as aforementioned)". Therefore, *ymwtn* may be either G- or D-stem.

Since these examples are the only anomalies from the imperfect roots that I have examined and they are outnumbered by yCC-examples, I would argue that they are exceptions to Sabaic's imperfect pattern or spelling and that they can be explained as passive transitive D-stems or that they are examples of a G-stem using different spelling or imperfect pattern.

3.2.3. Conclusion

When analyzing the results of the CSAI-database, it appears that the G-stem imperfect of 2-W/Y verbs is written as yCC-. This corresponds with the Central Semitic **yakūnu* imperfect pattern and not with non-Central Semitic *yVkawwVn. The presence of a very small number of yCwC- imperfects in Sabaic of uncertain stem may be explained as passive D-stems. Therefore, the Sabaic data supports Nebes' conclusion that Sabaic is Central Semitic. Its imperfect pattern can be reconstructed as **yaqtulu(n)(a).*

3.3 Minaic

The ASA language Minaic requires a different methodological approach than Sabaic, because it comprises fewer texts: 1,400 against 5,000 in Sabaic. Besides that, the language is less studied than Sabaic and inscriptions are often too fragmentary to determine their stems by lack of context. For those reasons, I searched the CSAI-database for any piece of information on 2-W/Y imperfects. This includes third singular and plural forms of the prefix conjugation of both masculine (y-) and feminine (t-) gender; forms of the type y-/t-CC that might be a 2-W/Y root unknown to Sabaic; geminate verbs; and alternative stems (D, S^1).

Nevertheless, the results are scarce. The reader should bear in mind that the conclusions are drawn from this small number of data, although they point clearly in a certain direction.

3.3.1. Absence of yCC 2-W/Y in G-stem imperfects

I found no 2-W/Y imperfects in the G-stem that lack the second radical in the CSAI-database. That leads to two possible conclusions: either the Central Semitic imperfect pattern *yakūnu* has simply not been attested – which is somewhat probable given the small corpus of Minaic – or Minaic used the non-Central Semitic imperfect pattern *yVkawwVn*. If the latter possibility is the correct conclusion, one expects to find traces of the geminated second radical in Minaic imperfects.

3.3.2. yCwC 2-W/Y in G-stem imperfects

Root	Clause	Translation	Type[22]	Inscription	Period
MWT	ʾw-ḏ **ymwt**	[…] or the one who **is dying** […]	CM	MAFRAY-Darb aṣ-Ṣabī 1	B

Table 3.c.

The only example of an expressed geminated second radical in G-stem imperfects may be the one in Table 3.c. The imperfect 3.sg.m. would have yielded ***ymt* /yamūtu/ in Central Semitic, whereas *ymwt* represents the non-Central Semitic imperfect pattern *yVmawwVt. However, theoretically, *ymwt* can be a D-stem as well, meaning "to kill". Therefore, context is needed to decide on which meaning is the most appropriate. Table 3.d. presents the complete inscription.

[22] Minaic is subdivided into CM (Central Minaic) and MM (Marginal Minaic).

MAFRAY-Darb aṣ-Ṣabī 1	Translation[23]
1 s²kn ʾmr w-s¹qwm Nkr— 2 ḥm b-ms¹ʾl b-gwbn hn yk— 3 wn ʾwṯn mḥrmn Fṯʿn ṯṯ— 4 n mlkn w-ḫfy nfs¹ hn ykwn m— 5 ḥrm b-ʾmrh Nkrḥ w-hn mn ys¹— 6 ʿgl mwt ʾw s¹bṭ w-wld b-ʾwṯ— 7 nh mḥrmh ḍlʿn w-l ygyb b-ṯwr 8 w-qtb-s¹w w-fyʿ ṣlf w-s²kn ʾmr | 9 Nkrḥ b-ms¹ʾl b-gwbn hn mn ys¹nkr | 10 ḏt ts¹bṭ ʾw ḏt tld ʾw-ḏ ymrḍ ḏ-y— 11 dnf k-mwt w-l ys¹ḥd mḫtnn (Ḍ)rʿn 12 w-hm ḏt tḥdṯ-s¹ mwt ʾw s¹bṭt w-wlt 13 ʾw-ḏ **ymwt** w-l ygb mḫtnn Ḍrʿn 14 w-ṣrḥt-s¹ b-tys¹ w-ʾyl w-mḥrm | 15 (nf)s¹ ḏ-m ngw q(f) ḏ-nfs¹	(1) Thus commanded and established Nkrḥm (2) in an oracular consultation in the abyton so that he would establish (3) the boundaries of the sanctuary Fṯʿn double(?)(4) of the king and the "judges of quarrels" that he will establish (5) a sanctuary by the order of Nkrḥ and so that anyone brings in (6) a dying person or someone who has beaten and gave labour in the borders (7) of this sanctuary of illness and let him compensate with a bull (8) and their load and ? shine and thus commanded (9) Nkrḥ in an oracular consultation in the abyton whoever assaults (10) a woman who will beat or will give birth or someone who is ill or seriously ill (11) towards death so that we may forbid him access to the building (of) Ḍrʿn. (12) And concerning she who will come to die or has beaten and given birth (13) **or a man who is dying**, let him be indebted to the building of Ḍrʿn (14) and his forecourt with a goat and a ram. The sanctuary (15) of life is defined by the demarcation of life.

Table 3.d. MAFRAY-Darb aṣ-Ṣabī 1

CSAI provides the cultural note:

> This text, which follows the formulaic pattern of the royal edicts, has a peculiar religious meaning. Issued by the god himself in an oracular response, it concerns the restrictions to the access to the sanctuary of Nkrḥ, defining which categories of people should not entry specific areas of it because they bear contamination (in this case, their physical condition is bound to the processes of beginning and end of life).

This text denies access to (parts of) the sanctuary for people who are in a bad physical condition or those who want to harm them. The imperfect *ymwt* denotes an unfinished event. The G-stem "to die" would indicate a dying person; the D-stem "to kill" a killing person. It is very unlikely that the meaning of the theoretical D-stem "to kill" or a passive "to be killed" is intended, because they are still welcome in the forecourt (line 13-14) together with the category women who are dying or have aborted. It seems most likely that a person who is going to die (G-stem) is meant in this context.

Therefore, we can safely assume that *ymwt* is a G-stem imperfect, following the non-Central Semitic **yakawwan* imperfect pattern.

[23] An earlier translation is provided by Robin, Breton and Ryckmans 1988.

3.3.3. 2-W/Y S^1-stem imperfects

Interestingly, S^1-stems (or H-stems in Sabaic) can provide us information about the imperfect pattern as well. The Pre-Proto-Semitic soundlaw Cw/yV > CV̄ (Brockelmann 1908, 186) yields e.g. Quasi-Proto-Semitic ***maqwam* > Arabic *maqām*; Hebrew **maqām* > *måqōm*. The Central Semitic S^1-stem imperfect 3.sg.m. of QWM would yield */yus$_1$a**qwi**mu/ > */yus^{1}a**qī**mu/, so without a visible W. The jussive equivalent would yield */yus^{1}a**qwi**m/ > */yus^{1}a**qi**m/.

However, the non-Central Semitic[24] S^1-stem imperfect 3.sg.m. would yield */yus^{1}a**qawwi**m/, so with a visible geminated second radical.

Root	Clause	Translation	Type	Inscription	Period
ḤWR	[... ...](ḏ)lh[...]ʾ bn (m)ḥr[....](l)ḏ-**ys^{1}ḥwr** w-ḏ ʾḫr(h)[... ...]	[…] (?) (all?) that **he will decree** and that (?) […]	CM	M 342	B

Table 3.e.

Table 3.e shows the only example of the latter type. Although the sentence is hard to translate, it is morphologically clear that the form is an imperfect and shows a geminated W in the S^1-stem. The equivalent in Central Semitic would have yielded **ys^{1}ḥr /yus^{1}aḥīru/. Therefore, the must represent /yus^{1}aḥawwir/, excluding the possibility that W is a *mater lectionis*. This is an additional example of a non-Central Semitic imperfect pattern in Minaic.

3.3.4. *mediae geminatae*: S^1-stem imperfects

More information about imperfect patterns can be found in verbs of the type *mediae geminatae*: verbs with two root consonants of which the second radical is etymologically long and repeated in some morphological forms (see Joüon & Muraoka 2018, 206). The Central Semitic imperfect pattern of verba *mediae geminatae* is *yV-C$_1$aC$_2$C$_2$u, e.g. /yaʿaddu/ (3.m.sg. imperfect of the root ʿDD). Importantly, only the first two consonants are present in writing and gemination is not indicated. These characteristics are distinct from the non-Central Semitic equivalent: *yV-C$_1$aC$_2$C$_2$aC$_2$ /yaʿaddad/. In this case, two identical consonants are visible in writing. Therefore, finding imperfects of the type *mediae geminatae* and examining the number of visible consonants will shed light on the imperfect pattern.

Let us begin with the S^1-stems of the *mediae geminatae* verbs, since concerning these stems the sometimes difficult distinction between G- and D-stems does not have to be made and ambiguity can be excluded.

[24] Based on Gəʿəz. Akkadian and Modern South Arabian languages use another pattern without gemination in the case of derived stems.

Root	Clause	Translation	Type	Inscription	Period
BRR	w-S¹ʿyd b-**ys¹brr** w-[... ...]	[…] and S¹ʿyd **will release(?)** […]	MM	M 333	B
BRR	[... ...]yd(h)-s¹mn ʿd **ys¹brr** w-s¹mtʿ ḏ-ʿmm k-Wd (lw)ʾnhn rbm[... ...]	[…] ? them (both) PN(?) **will release** and save(?) who damages like Wd ? Rbm(?) […]	MM	M 359	B
BRR	[... ...] **ys¹brrn** w-s¹m[tʿ... ...]	[…] they **will release** and save(?) […]	MM	M 351	B
BRR	[... ...]Wd **ys¹brrn** w-s¹mt[ʿ... ...]	[…] Wd they(?) **will release** and save(?) […]	MM	M 351	B
ḎLL	[... ... b]n ʾbydʿ mlk Mʿn (w)-ʾs³wdn k-ʾs¹d bn m **ts¹ḏlln** ky w-kʾ ʾlʾltn nḍn y	[…] ʾbydʿ king of Maʿīn and ʾAswadān when ʾs¹d ? ? **they (f) were humiliating(?)** and ? the god-goddesses/non-goddesses(?) they (f) destroyed ? […]	CM	Maʿīn 58	?

Table 3.f.

The five attested forms in Table 3.f show clearly that in the S[1]-stem *mediae geminatae* the second radical is repeated and therefore represents /yus[1]abarrir/ (*yV-s[1]aC$_1$aC$_2$C$_2$iC$_2$), corresponding with the non-Central Semitic imperfect pattern *yV-C$_1$aC$_2$C$_2$aC$_2$ and not with the Central Semitic *yV-C$_1$aC$_2$C$_2$u. Therefore, these examples can be counted as evidence for a non-Central Semitic imperfect pattern for Minaic.

3.3.5. *mediae geminatae*: uncertain forms

Root	Clause	Translation	Type	Inscription	Period
ḎLL	w-**yḏll[.]**	[…] and **he/they will evacuate/come out?** […]	CM	MAFRAY-Darb aṣ-Ṣabī 27	B
HRR	s¹lln ʾhl mʿtq ḏ-**yhrrn** mlʾ y[... ...]—	[…] ? clan ? who **will collapse (?)** help (?) […]	CM	M 375	?

Table 3.g.

Although the two attestations in Table 3.g show three root consonants (aligning with the non-Central Semitic imperfect pattern), they are too fragmentary to determine whether they are G- or D-stems. Subsequently, they cannot be counted as evidence for a non-Central Semitic imperfect pattern.

3.3.6. 2-W/Y possible D-stem forms

Root	Clause	Translation	Type	Inscription	Period
GYB	w-l **ygyb** b-ṯwr	[…] and **let him compensate** with a bull […]	CM	MAFRAY-Darb aṣ-Ṣabī 1	B
KWN	w-ḫbl ʿd ys¹nḥyn-s¹ w-hm (y)s¹nḥyn-s¹ ʾw s¹qtl-s¹ f-l **ykwn** [... ...]	[…] and it was damaged, yet he was …(?)-ing it and concerning his … or his … **so that he would establish** […]	CM?	A-20-845	B
KWN	(w)-l **ykwn** rzʾ-s¹m w-(m)[...]ʾ	[…] and **may they establish** their expenditure […]	CM	as-Sawdāʾ 28	B
KWN	bn ***y*kwnn** w-ḏn b-yṣl ʿd mʿtq[... ...]	[…] against (?) **they establish** and this in … (?) yet … (?) […]	CM	M 375	?
KWN	hn **yk—wn** ʾwṯn mḥrmn	[…] so that **he would establish** the boundaries of this sanctuary […]	CM	MAFRAY-Darb aṣ-Ṣabī 1	B
KWN	hn **ykwn** m—ḥrm b-ʾmrh Nkrḥ	[…] that **he will establish** a sanctuary by the order of Nkrḥ […]	CM	MAFRAY-Darb aṣ-Ṣabī 1	B
NWḤ	[.]r **ynwḥn** ʿnn [...](l)	[…] **they will destroy/rest(?)** ? […]	CM	as-Sawdāʾ 28	B

Table 3.h.

Let us return to the 2-W/Y imperfects. Table 3.h shows the attestations that are most likely[25] D-stems. The jussive *ygyb* is in complementary distribution with *ygb* in the same inscription (see 3.3.2; 3.3.8), showing different agent-patient roles. The imperfect *ynwḥn* is most likely a D-stem, since it appears solely with a geminated second radical W in all attestations in Sabaic, Minaic and Ḥaḍramitic (the root is not attested in Qatabanic). The attestations that are more problematic are presented in 3.3.7.

The reader should be aware that these are no(t) (all) imperfects. The first two attestations are preceded by *-l*, which indicates that *ykwn* is a jussive. Preposition *bn* and conjunction *hn* preceed *ykwn(n)* in the last three attestations and could possibly trigger a morphological jussive instead of an imperfect. This is not a problem, since these forms are excluded from this research anyway.

[25] In most contexts the sentences are fragmentary or unclear.

3.3.7. 2-W/Y uncertain stem imperfects

This section contains 2-W/Y imperfects of which the stem is uncertain.

Root	Clause	Translation	Type	Inscription	Period
ʿWD	l-ytlw(n) w-lṣq w-ʿtllm k(l ḏ)-**yʿwd**	[…] may they follow and harass and (?) everyone **who will return (G)/bring back (D) (?)** [...]	CM	al-Jawf 04.23 A	B
T̲WB	[... ...] bn mqmh-s¹m (w)-[.] ʾ[ḫ](ḫ)r (ʾ)wl ḏ-**yt̲w[b... ...]**	[…] from their place …(?) he returned the things **which he brought back (?)** […]	MM	M 321	B

Table 3.i.

The attestations in Table 3.i are problematic since the context is unclear, because of the lacunae and unknown meaning of words. Consequently, a lexical distinction between G- and D-stems cannot be made. Therefore, they are too uncertain to count them as evidence.

3.3.8. 2-W/Y excluded forms

Table 3.j shows non-imperfect G-stems of the prefix conjugation.

Root	Clause	Translation	Type	Inscription	Period
GYB	w-l **ygb** mḫtnn Ḍrʿn w-ṣrḥt-s¹ b-tys¹ w-ʾyl	[…] and **let him be indebted to** the building of Ḍrʿn and the forecourt with a goat and a ram […]	CM	MAFRAY-Darb aṣ-Ṣabī 1	B
T̲WB	w-l **yt̲b** ʿm-s¹ rs²wn ʿmm b-(t̲)[... ...]	[…] and **let him return** with them (scil. the tribe) to the priest, in order to proclaim publicy […] (CSAI)	CM	M 168 B	B
T̲WB	mlkh Mʿn k-ʾyhn yns²ʾ w-**yt̲b** ʾbkrb w-ʾs¹d yns²ʾ w-(y)t̲b ʿm-s¹ bn Mʿ(n) [... ...]	The king of Maʿīn that/when ? he will remove (?) and Abkarib **came back** and those who were removing (?) and he came back with him from Maʿīn […]	CM	as-Sawdāʾ 40 B	B
T̲WB	mlkh Mʿn k-ʾyhn yns²ʾ w-yt̲b ʾbkrb w-ʾs¹d yns²ʾ w-**(y)t̲b** ʿm-s¹ bn Mʿ(n) [... ...]	idem	CM	as-Sawdāʾ 40 B	B

Table 3.j.

The first two forms of this list are preceded by *w-l*, indicating a jussive. A parallel construction is found in Arabic *wa-l(i)-* + apocopate (Fischer 2002, 108-109) and possibly in Gəʿəz *la* + jussive as well, although the preposition is not obligatory in the latter example (Dillmann 2005, 173-174). The last two forms are preceded by *w-* and it is clear from the context that the forms use the jussive as a narrative of dealings in the past.

Since Semitic jussives in 2-W/Y verbs have vocalized second radicals, the forms above are expected. However, it is interesting to note that W and Y are not used as *matres lectionis*. For Sabaic it is known that it does normally not use *matres lectionis* word-internally, but this was not clear for Minaic. Therefore, these examples confirm the absence of word-internal *matres lectiones* for Minaic as well, implying that visible W/Y in 2-W/Y imperfects are not a matter of script but of morphology.

3.3.9. Conclusion Minaic

I observed that there are no G-stem 2-W/Y imperfects of the pattern yCC (Central Semitic *yakūnu*) attested in Minaic (3.3.1). The only four forms of yCC appeared to be jussives or narratives, not imperfects (3.3.8).

Contrarily, I found relatively many yCw/yC verbs. Most of them were (most likely) D-stems and therefore inutile for this research (3.3.6). Apart from two possible G-stem candidates (3.3.7), one attestation can be safely regarded as an example of a non-Central Semitic imperfect pattern in Minaic: *ymwt* (3.3.2). I found an additional example of this pattern in the 2-W/Y S^1-stems: *ys¹ḥwr* (3.3.3).

Furthermore, I found five s_1-stem imperfects of geminated roots (3.3.4) supporting the idea of a non-Central Semitic imperfect for Minaic. Two uncertain candidates for a G-stem imperfect are excluded from the evidence, because it could not be determined whether they were G- of D-stems (3.3.5).

In total, at least seven Minaic imperfects of the non-Central Semitic type can be put against zero of the Central Semitic imperfect pattern. This evidence leads to the conclusion that, unlike the Sabaic imperfect pattern and the conclusion in Nebes (1994), Minaic used the non-Central Semitic **yVqattVl* pattern.

3.4 Qatabanic

With its more than 1,800 inscriptions, the corpus of Qatabanic is smaller than that of Sabaic (ca. 5,000 inscriptions). I used the same methodological approach of researching 2-W/Y imperfects as in Minaic. All data providing information on 2-W/Y imperfects in Qatabanic are presented in the sections below.

3.4.1. yCC- 2-W/Y in G-stem imperfects

Root	Clause	Translation	Type[26]	Inscription	Period
DWR	w-ʾy ʾy ʾs¹dm b-**ydr** w-s¹ḫdʿ bn wfr	[…] and particularly whatsoever person **causes trouble** and damage (hindering the activities) of cultivating […] (Mazzini 2020)	CQ	RES 3854	B
DWR	*ḏtm b-**ydr** w-s¹ḫdʿ*	*[…] that (day) in which **he causes trouble** and damage […] (Mazzini 2020)*	*CQ*	*RES 3854*	*B*
KWN	*w-kl s¹hmm w-qnym |(b)-**(yk)n** w-yks³ʾ ws¹ṭ ḏtn ʾbytn*	*[…] and all servants and properties which **are** and are found within these houses […] (CSAI)*	*CQ*	*CIAS 47.82/j 1*	*C*

Table 3.k.

The three attestations listed in Table 3.k are easily recognized as imperfects, since they are preceded by the proclitic *b*-. According to Beeston (1962, 24-25):

> *b*- is characteristic of the indicative in QAT, while a jussive (and perhaps also a subjunctive) use is characterized by the absence of *b*-. Such a formulation would bring the QAT imperfect usage very close to that of the Syro-Palestinian dialect of Arabic"[27].

In the context of this research, this information is highly relevant. This dialect of Arabic does not construct its synchronic indicative imperfect on the historical imperfect, but on the historical jussive or subjunctive, preceded by the preposition *b*-. Since this research tries to reconstruct the historical imperfect of Qatabanic, we must be highly cautious with its data.

[26] Qatabanic is subdivided in: Awsanite inscriptions, CQ (Central Qatabanic), MQ (Marginal Qatabanic.

[27] However, Avanzini (2009, 213) reacts on this: "A study of the QAT corpus has shown that no modal opposition can be surmised for the *yfʿl* vs. *b-yfʿl* opposition, but the *b-yfʿl b-yfʿlwn* (pl.) forms are used to specify the present-future (Avanzini 2005b), in relative clauses in particular."

Although this innovation of Syro-Palestinian Arabic may not be related to the one in Qatabanic, it may be possible that Qatabanic uses the historical jussive (or subjunctive?[28]) for the synchronic imperfect as well.

So, although these forms must be imperfects and they lack a W as a second radical, it is uncertain if they represent the Central Semitic **yakūnu* imperfect.

3.4.2. 2-W/Y S¹-imperfects

In the S¹-imperfects the forms are preceded by *b-* as well and it is therefore uncertain whether the synchronic imperfect is built on the historical morphological Central Semitic imperfect **yakūnu* or on the jussive. They are shown in Table 3.l for the sake of completeness[29].

Root	Clause	Translation	Type	Inscription	Period
KWN	w-ḏtm ʾl b-**y—s¹knwn** l-S²hr w-ʾmlk Qtbn w-Qtbn ms³wdn w-Ṭbnn	[…] because those **are** not **ratified** by S²hr and the kings of Qatabān and the Council of Qatabān and the Ṭbnn […] (CSAI)	CQ	RES 3566	C
KWN	w-ys¹ṯb S²hr w-Qtbn ms³wdn gw qhlm w-Fqḍtn w-Btln k-ḏm-ʾl s¹knw w-ʾl b-**ys¹knwn**	Then, accordingly the king S²hr and the Council of Qatabān, the whole nation and Fqḍtn and Btln **were to establish that** […] (CSAI)	CQ	RES 3566	C
ḤWR	[... ...](k)r brṯm w-mʿbrm ġyr brṯm b-**ys¹ḥr**-s¹ w-s¹ʿbr w-ṣry m—	[…] [whenever there is an appeal] against (?) the public declaration and compensation without the public declaration, which the king **decrees** and puts into effect and proclaims […] (Mazzini 2020)	CQ	RES 3878	B1

Table 3.l.

[28] Traditionally it is believed that the subjunctive *yaqtula* was limited to Proto-Arabic. However, Baranowski (2021, 166-170) has identified the subjunctive in the Canaanite Amarna letters as well. This implies that the subjunctive had been present in Northwest-Semitic and that it is not a (solely) Arabic innovation. Therefore, the presence of a historical subjunctive in Qatabanic cannot be excluded.

[29] The S¹-stem jussives/narratives I found are: *[l]-ys¹ṯb* (CIAS 47.11/p 8 n° 1), *w-l-ys¹kn* (RES 3566) and *w-ys¹ṯb* (RES 3566).

3.4.3. An example of yCwC 2-W/Y

Root	Clause	Translation	Type	Inscription	Period
KWN	Ṯwbʾl w-ʿmḏkr bnw Qdrn s¹qn—yw Ḥwkm Nbṭ w-ʾlhy bytn S²bʿ—n s¹qnytn w-ʾbn mgnn w-hrrnyw s²ʾmynyw w-ms³ndyhn [..]w **ykw—nn** mdlwt-s¹my s¹lʿt ʾḫlf w-ʿs²r krkr ḏhbm qyḥm [...] s²lt ʾkr—mn	Ṯwbʾl and ʿmḏkr, of the family Qdrn, dedicated to Ḥwkm Nbṭ and to the gods of the temple S²bʿn the dedication and the stone of the garden and two northern warehouses and two inscriptions, who **establish** their values/their values **are (established)** s¹lʿt ʾḫlf and ten krkr of red bronze and .. three (?) ʾkrm […] (adjusted CSAI)	CQ	Maraqten-Qatabanic 1	C

Table 3.m.

It appears from the context that *mdlwt-s¹my* "their values" is either the subject of the clause and *ykwnn* is the linking verb "(they) are", corresponding to the meaning in de G-stem, or that it is the object and *ykwnn* is a passive D-stem "(they) are established". There is even a third option: the subject of *ykwnn* may be *Ṯwbʾl and ʿmḏkr* (earlier in the inscription) and *mdlwt-s¹my* the object, resulting in "*Ṯwbʾl* and *ʿmḏkr* established their values […]". The latter options can be supported by the reading of the preceding word as *ḏw,* a masculine plural relative pronoun[30].

The distinctive imperfect marker *b-* lacks in the inscription above and therefore is not likely to be an imperfect. However, the jussive marker *(w-)l* is lacking as well. Therefore, I present the following suggestions:

- *ykwnn* is a jussive/subjunctive in the D-stem. Only a jussive of the D-stem ("may they establish"/"may they be established […]") can show a geminated consonant, since this feature does not occur in G-stem jussives. However, a jussive without w-l or subjunctive w-l- is unusual;
- *ykwnn* is a historical D-stem imperfect: "(who) establish (their values)"/"(their values) are established […]". It is possible that the historical morphological imperfect pattern continued to exist in another function, when it became replaced by the synchronic *b-yCC* pattern. The scribe would have used the form as an archaic feature. If that hypothetical imperfect functioned the same as in Sabaic, the form must be a D-stem;
- *ykwnn* is a historical G-stem imperfect: "(their values) are […]". See the second option. The meaning of this option may make more sense than the jussive/imperfect D-stem, since the syntactic order in ASA is VSO (Verb-Subject-Object). If the historical morphological imperfect was **yakawwan*, the form is a G-stem, just as in Minaic.

[30] According to the *apparatus criticus* in CSAI this reading was proposed by the editor, but "it is not easy to propose a grammatically convincing integration".

The latter two options can be supported by Avanzini (2009, 213), who reconstructs the Qatabanic verb as is visible in Table 3.n.

QTL	w-yQTL	yQTL	b-yQTL
	w-yQTLw (pl.)	yQTLwn (pl.)	b-yQTLwn (pl.)
(suffix)-preterite	(prefix)-preterite (= *narrative*)	narrative-imperfective	present-future (= *imperfect*)

Table 3.n. Adjusted Qatabanic verb reconstruction by Avanzini 2009, 213.

This system shows that beside the synchronic imperfect ("present-future") and narrative ("prefix-preterite") there is a form yQTL without an additional prefix, which expresses (past-) imperfectivity[31]. I am not sure whether this imperfective would be restricted to the past or whether it could be a tense-less imperfective (this is out of the scope of my thesis). However, an imperfective next to an innovated imperfect could point to a specialization of the diachronic imperfect *yaqtulu/*yVQattVl in its *aspect*. The future-present *tense* would have been expressed by a newly formed b-imperfect.
So, which imperfect pattern would then be the base of the imperfective? This question might be answered by the only 2-W/Y example in Table 3.m. The form *ykwnn* lacks an additional prefix, but in Avanzini's theory, this form does not have to be a jussive, but could be an imperfective. Despite that the subject is probably plural and *ykwnn* does not show a W in its ending (**ykwnwn), the additional *-n* is present and the omission of W may not be that problematic. It may even support the idea that the W is a reduplicated second radical and not a *mater lectionis* (which is confirmed in 3.4.4.). *ykwnn* clearly shows a reduplicated second radical, which points to a non-Central Semitic yVqattVl-base. Of course, one example which is multi-interpretable is rather scarce to change the traditional classification. However, by lack of evidence from the synchronic imperfect, this form may be the key to the inherited imperfect pattern of Qatabanic.

3.4.4. Excluded forms

All jussives/narratives listed in Table 3.o are G-stem 2-W/Y verbs, which help to complete our data on 2-W/Y verbs, but are not usable in researching the imperfect pattern of Qatabanic. Again, it is noteworthy that W and Y are not used as *matres lectiones*.

[31] Avanzini (2009, 213) provides the following example: "CSAI I 205 = R 4337: *w-l-yḏrṯ ḫms[1]y wrqm l-mlk Qtbn w-ʿhr S[2]mr* ***ys[1]mẓʾwn*** "must pay 50 pieces of gold to the king of Qataban and the magistrate of S[2]mr **whose task this is (whose task it was and will be to receive payment of the fine)**"." (own accentuation).

Root	Clause	Translation	Type	Inscription	Period
ḤWR	[... ...] Wb w-**yḥr** bḥt	[…] Wb and **he ordered (?)** a stone slab […]	CQ	UAM 509	B2. Conjectural
ḤWR	w-l **yḥr** ḏn bytn Byḥn	[…] and **may** any priest and priestess **stay** in this temple Byḥn […] (CSAI)	CQ	RES 4932	B1
ḤWR	w-l-**yḥr** b-ḏn brṯn	[…] and **let it remain** in this place […] (Avanzini 2004 a)	Awsanite	CIAS 49.10/p 2 n° 1	C
KWN	w-l **ykn** ḏtn ʾbytn w-ʾḫṭb-s¹—m w-ṣrḥt-s¹m ẓrbm	[…] **Let** these houses, their lower rooms and their upper rooms **be** indeed as a legal property […] (CSAI)	CQ	ATM 866	B2
KWN	w-l **ykn** ns¹ym s¹w w-wld-s¹	[…] **let** he and his children **be consigned** to oblivion. […] (CSAI)	CQ	Ja 2361	B1
KWN	w-l **ykn** nyl	[…] and **let there be** a ritual. […]	CQ	AM 60.744	?
KWN	w-l **ykn** s²yṭm b-ys²tyṭw—n Qtbn	[…] And **may it be placed** the trade that will be done by Qatabān […] (CSAI)	CQ	RES 4337B	B1
ṮWB	w-**yṯbw** ʾbʿ→ly w-s²ʿb-s¹ hgr-s¹m Hrbt l-s¹bʿ wrḏm b-brym w-ḥmdm	ʾbʿly and his tribe **came back** to their city of Hrbt safely and with glory on the seventh month […] (CSAI)	CQ	Arbach-Sayūn 1	B2

Table 3.o.

3.4.5. Conclusion Qatabanic

The synchronic imperfect pattern of Qatabanic is *b-y*CC. It is uncertain whether this new imperfect is built on the Central Semitic imperfect *yakūnu or on the jussive. However, the example of *ykwnn* (without additional prefix) may be an imperfective which continues the aspect of a *yVqattVl imperfect. If that is the case, the synchronic imperfect may be built on the jussive. More importantly, Qatabanic may be classified as non-Central Semitic based on the historical imperfect *yVqattVl.

3.5 Ḥaḍramitic

The corpus of Ḥaḍramitic is the smallest of the four ASA languages: approximately 900 inscriptions. Therefore, the data for reconstructing an imperfect pattern for Ḥaḍramitic is very limited. To collect the maximum data, I applied the same methodological approach as for Minaic and Qatabanic.

3.5.1. yCC 2-W/Y in G-stem forms

Root	Clause	Translation	Inscription	Period
ḤWR	w-bn-mw Fṭnm (l)-s³tw±(r) ḏw **yḥr** ʿ±m ʾs³tm	[…] and may it be far from Fṭnm that he lives with a woman […] (CSAI)	Rb I/84 no. 197a-e	B2
S³WB (= ṮWB)[32]	w-bn-mw ʾs³h—mw ys³twr ḏ-ʾl |**ys³b** h-ḏt Ḥmym |ḏt ynṣf	[…] and may it be far from ʾs³hmw that he makes no offerings to ḏt Ḥmym during the rite he performed […] (adjusted CSAI)	Rb I/89 no. 306a-b	B2
ṢYD	*mtll **yṣd** (s¹)rhn ʿrmw*	*[…] he stayed while hunting in wadi ʿIrmaw[…]/ […] he stayed to hunt in wadi ʿIrmaw […]*[33]	*Ingrams 1*	*D*

Table 3.p.

The three attestations listed in Table 3.p are forms that have a vowel as their second radical. If these attestations are imperfects, they would point to a Central Semitic imperfect pattern **yakūnu*. However, it is uncertain whether these verbs are imperfects or jussives, because it is unclear which form Ḥaḍramitic would use in relative clauses (attestation 1 and 2) and final subordinate clauses (attestation 3). In Gəʿəz, a jussive is used in relative clauses and final subordinate clauses (Dillmann 2005, 173-174, see 2.3.4.). If these forms are indeed jussives, there is no example of a **yakūnu*-imperfect pattern for Ḥaḍramitic.

[32] The Ḥaḍramitic root S³WB "to return (offerings)" is cognate with ṮWB "to return" in Sabaic, Minaic and Qatabanic. This is a result of the merger of Proto-Semitic *ṯ and *s³ to s³ in Ḥaḍramitic (see Suchard 2017, 70).
[33] The latter translation (copied and translated from Nebes 1994) points to a subjunctive. However, it is more usual to expect *w-l-y*CC in that case.

3.5.2. Absence of yCw/yC 2-W/Y in G-stem imperfects

From the type yCw/yC I have not found any example. However, that is no evidence against a **yakawwan*-imperfect pattern for Ḥaḍramitic since the corpus is too small to draw conclusions on the absence of evidence.

3.5.3. Excluded form

Root	Clause	Translation	Inscription	Period
KWN	k-**ykn**-h-s[1] (wl)d(m)	[…] in order to have a son […] (CSAI)	Rb XIV/87 nos. 110-111	B

Table 3.q.

In the example in Table 3.q, *k-* indicates a final subordinate clause: “so that/in order to”. For this reason, *ykn* is probably a morphological jussive and not an imperfect.

3.5.4. Conclusion Ḥaḍramitic

In Ḥaḍramitic the small number of data is problematic. The data comprises three G-stem verbs of the pattern yCC that may be either jussives or imperfects and no attestations of the yCw/yC-type. Therefore, it is impossible to reconstruct the imperfect pattern of Ḥaḍramitic based on the present data. Consequently, the language cannot be classified based on its imperfect pattern.

4 Interpretation

4.1 ASA-intern

After analyzing the data in chapter 3, it is safe to conclude the following concerning the reconstructions of the imperfect patterns.

Sabaic: *yVqtulu(n(a))

The vast majority of G-stem 2-W/Y imperfects lack the second radical in script (yCC). This can never be a representation of the non-Central Semitic *yaqattal and corresponds perfectly with Central Semitic *yaqtulu. The few yCw/yC imperfects found in Sabaic can be explained as (passive) D-stems. Therefore, Nebes' conclusions on the imperfect pattern of Sabaic being Central Semitic are confirmed and illustrated.

Minaic: *yVqattVl

The absence of G-stem 2-W/Y imperfects of the type yCC in the corpus of Minaic inscriptions as well as evidence of the yCw/yC-type in G-stem and S^1-stem 2-W/Y and geminated roots lead to the conclusion that the imperfect pattern of Minaic is *yVqattVl. This pattern is characteristic for Non-Central Semitic. Therefore, the language deviates from Sabaic and the conclusion of Nebes 1994 that all non-Sabaic languages seem to have a corresponding imperfect pattern with Sabaic.

Qatabanic: b-yVqtVl(u)/*yVqattVl(?)

The origin of the synchronic imperfect pattern of Qatabanic *_b-yVqtVl(u)_* may be the Central Semitic imperfect *_yaqtulu_* or its jussive *_yaqtul_*. Therefore, based on the synchronic imperfect, it is impossible to determine which pattern preceded *_b-yVqtVl(u)_*. Nebes' claim that Qatabanic is Central Semitic as well, can therefore not be verified. However, one example points to an inherited *yVqattVl of an imperfective, which would make Qatabanic non-Central Semitic.

Ḥaḍramitic: *yVqtul(u)/*yVqattVl

Although I found no attestations of a yCw/yC-imperfect in Ḥaḍramitic, caution is needed for the imperfect pattern of Ḥaḍramitic as well due to the extremely small corpus of the language. I found only three G-stems of the pattern yCC *(*yakūn(u)), which are probably jussives. I agree with Nebes that a strong conclusion about the imperfect pattern cannot be drawn based on these attestations. Therefore, Ḥaḍramitic could either be Central Semitic or non-Central Semitic.

Concerning the attested imperfect patterns of the four languages, I conclude that ASA is no homogeneous unity. Synchronically, three out of four (Ḥaḍramitic is considered) ASA languages do not correspond in their imperfect pattern. Sabaic displays the Central Semitic imperfect, Minaic the non-Central Semitic one and Qatabanic features a newly developed imperfect based on either the non-Central Semitic imperfect or a jussive from either language group.

4.2 ASA in Semitic context

Based on the imperfect patterns we concluded that ASA is heterogeneous despite its shared features. Therefore, the question to which language branch ASA belongs cannot be answered, but should be altered into which individual language belongs to which Semitic branch.

First of all, the lack of sound attestations of the imperfect pattern in Ḥaḍramitic makes it hard to connect the language to any Semitic branch. Additional evidence is needed.

Sabaic shares its imperfect pattern with Central Semitic languages like Arabic, Aramaic and Hebrew: *yaqtulu. This is an argument in favor of a migration from an exogenous origin (the Levant/North-west Arabian Peninsula?) into the southern Arabian Peninsula.

However, that migrating group must have been limited, since the evidence from Minaic shows a different imperfect pattern *yVqattVl,* the same pattern as Akkadian (East Semitic) and Gəʿəz (Ethiosemitic). Minaic is most closely related to South Semitic.

The origins of Qatabanic are unclear. A parallel imperfect pattern *b-yVqtVl* is found in the Syro-Palestinian dialect of Arabic (see 3.4.1), which is based on the jussive. Assuming that Qatabanic is unrelated to this dialect, Qatabanic must have developed its imperfect pattern separately. A possible imperfective example can tie Qatabanic to non-Central Semitic languages.

When redrawing the linguistic map of Semitic, ASA cannot be classified as a group within Central Semitic anymore. Sabaic can stay Central Semitic and may be closer related to Aramaic, see Kottsieper & Stein (2014). However, Minaic should be classified as West Semitic, being most closely related to Ethiosemitic. Future research could investigate the possibility of Minaic being (related to) the ancestor of the Modern South Arabian languages. Until that time Minaic can form a separate branch, which might be expanded if there is sufficient evidence of a similar imperfect pattern in Qatabanic and/or Ḥaḍramitic.

Although the history of people cannot be reconstructed by language, it is highly unlikely that (ancestors of) languages with different imperfect patterns migrated from the north-west, the realm of Central Semitic. For that reason, at least Minaic is most likely endogenous. Time will tell which other languages (Proto-)Sabaic encountered in *Arabia Felix*.

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