The Complexity of the Irregular Verbal and Nominal Forms & the Phonological Changes in Arabic

Joyce Ākesson

Writer of Arabic Morphology and Phonology
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of the Irregular Verbal
and Nominal Forms
&
the Phonological Changes
in Arabic

Joyce Åkesson

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After having written my comprehensive work *Arabic Morphology and Phonology based on the Marāḥ al-arwāḥ by Aḥmad b. ʿAlī b. Masʿūd*, I felt that a deepened study of the morphophonology of the irregular classes of the verbal and nominal forms and the phonological changes would be of interest for the reader.

For this purpose I have divided this book into two main topics. The first one is a presentation and analysis of the morphological classes of the irregular verbs and the second one is a study of the main phonological changes in the language.

These irregular verbs are the doubled, the hamzated, the verb with 1st radical ʼw or ʼy, the verb with 2nd radical ʼw or ʼy, the verb with 3rd radical ʼw or ʼy, and the verb that is doubly weak.

The common verbal forms are the perfect, the imperfect and the imperative, and the nominal forms are the infinitive noun, the active participle, the passive participle, the noun of time, the noun of place and the noun of instrument.

The existence of a doubled segment, a hamza or a weak segment in the word can result in different phonological changes which lead it from one base form to another derived form. These procedures are recognized as the addition of one segment or more to a word’s structure, the substitution of a
segment for another, the elision of a segment or more, the addition or the elision of a vowel, the assimilation of a segment to another, the transfer of a vowel from one segment to another and the transfer of a segment to the position of another. In the many cases that I study, I discuss the reasons forcing or hindering a specific change. My approach explains for instance in which manner a phonological change is carried out from one base form to another derived form without that a change in meaning is implied, e.g. the verb with 2nd radical ș in the perfect qawala "to say" that becomes q(ə)əla after that a change is carried out in its structure.

The phonological changes that I study in detail in the separate chapters are the assimilation, the changes due to the hamza, the changes due to the unsound segment and the substitution. As it is remarked, the changes due to the assimilation and substitution do not only occur in the irregular classes of verbs, but also in the classes of the regular verb.

For the purpose of studying these changes I have adopted a specific model that takes into consideration the succession of different segments occurring in one word and in some cases in two words following each other.

I refer a lot to my previous study Arabic Morphology and Phonology.

I do not neglect however to refer to other grammarians, ancient as well as modern, Arabs as well as Westerners. Among some of the ancient Arab grammarians that I take up, I can mention Sibawaihi with his al-Kitāb, Ibn Ğinni with his works Muḥtaṣar al-taṣrīf al-mulūkī (Ibn Ğinni, de Flexione), al-Munṣif fī šarḥ taṣrīf al-Māzinī, al-Ḥaṣāʾiṣ and Sirr șināʿat al-iʿrāb, Zamaḥsarrī with his al-Muṣaffal, Ibn Yaʿyi with his works Šarḥ al-mulūkī fī l-taṣrīf and Šarḥ al-Muṣaffal and Ibn ʿUṣfūr with his al-Mumtiʾ fī l-taṣrīf. Among Westerners who have written works on grammar I can mention Howell with the Grammar of the Classical Arabic Language, Wright with the A Grammar of the Arabic Language, de Sacy with the Gram-
maire arabe, Vernier with the Grammaire arabe, Blachère et Gaudefroy-Demombynes with the Grammaire de l'Arabe classique and Fleisch with the Traité de Philologie Arabe. Among the many modern researchers who have developed the theoretical studies, I can mention Cantineau with the Études de linguistique arabe, Verseegh with The Arabic language and The explanation of linguistic causes, Bohas and Kouloughli with The Arabic Linguistic Tradition, Carter with the Arab Linguistics, Roman with the Étude de la phonologie et de la morphologie de la koinè arabe and Mokhlis with the Théorie du taṣrīf. Among the modern Arab researchers I can mention Hindawi with the Manāhīq al-ṣarṣīyin wa-maḍāhibuhum fī l-qarnain al-tāliṭ wa-l-rābiʿ mina l-hiğra, Bakkūš with al-Taṣrīf al-ʿarabī, ʿAbd al-Raḥīm with his Muqaddamat fī ʿilm al-ṣarṣ and ʿAbd al-Tawwāb with his al-Taṭawwur al-luḡawī, maẓāhiruhu wa-ʿilaluhu wa-qawānīnuhu.

Hence, the material contains numerous examples, topics and theories referring to works from the 8th century A.D. until our days. The topics of the work are made accessible by the table of contents that facilitates their use.

The set-up of the work is as follows: chapter 1 is a study of the doubled verb anūd some of its derivatives, chapter 2 is a study of the assimilation, chapter 3 is a presentation of the hamzated verb and some of its derivatives, chapter 4 is a study of the phonological changes due to the hamza, chapter 5 is a presentation of the verb with 1st w or y radical and some of its derivatives, chapter 6 is a presentation of the verb with 2nd w or y radical and some of its derivatives, chapter 7 is a presentation of the verb with 3rd w or y radical and some of its derivatives, chapter 8 is a presentation of the verbs which are doubly weak, chapter 9 is a study of the soundness or the unsoundness of the weak segment and chapter 10 is a study of the substitution.

My thanks are due to the late Gösta Vitestam, Professor emeritus of the Semitic languages at the University of Lund,
who has directed my research into the study of Arabic morphology and phonology. His encouragement and positive criticism have greatly influenced this work.

I extend my gratitude to the reviewers who have reviewed my two previous books, ‘‘Aḥmad b. ‘Alī b. Mas‘ūd on Arabic Morphology, part 1: The Strong Verb’’ and ‘‘Arabic Morphology and Phonology’’. Their insights and comments have been very inspiring.

Last but not least, my friends and family deserve my deepest gratitude.

To my late father, Mounir Hakim, my mother, Irene Egeland, my parents-in-law, Carl and Ellen Åkesson, my brother, Senior System Manager James Hakim, my nieces, Amanda and Mia, my husband, Dr. Anders Åkesson, and our son, MA Filip Åkesson, I owe all that one can owe for their love and support during the production of this book.

Lund, March 2009
1. The doubled verb and some of its derivatives

In this chapter I shall take up the doubled verb and some of its derivatives. I shall discuss as well the phonological procedures due to the doubled segment in its structure.

The doubled verb, *al-muḍāʿaf*, is the verb in which the 2nd and 3rd radicals are identical segments. It is also termed as *al-ʔašamm* "the solid verb" (cf. Åkesson, *Ibn Masʿūd* 194: fol. 17b), because of its ʔadda as both the 2nd and 3rd radical are assimilated together.

1.1. The conjugations of the doubled verb

The doubled verb falls into four conjugations, of which the fourth occurs very rarely:

1- faʿala yafʿulu, e.g. sarara yasruru "to gladden" that becomes after the assimilation sarra yasurru.

2- faʿala yafʿilu, e.g. farara yafirru "to escape" that becomes after the assimilation farra yafirru.

3- faʿila yafʿalu, e.g. ʿadda yaʿaddu "to bite" that becomes after the assimilation ʿadda yaʿaddu.
4- fa\'ula ya\'ulu. Only a few verbs seem to be formed according to this conjugation. Some examples are ḥubahya ḥubhu that becomes after the assimilation ḥabba ḥubbhu "to love", labuba yalubu that becomes labba yalubu. Other examples are sarura "to become evil", ramuma "to repair" and ḥafufa "to be light". According to Ibn Ģinni, Munṣif I, 240, the example labubta fa\'-anta labībun "you became possessed by understanding, so you are a person of understanding" has been said by Yunus, and šarurta fī l-šarri "I became evil, or acted with evil" has been said by Quṭrub.

1.2. Examples of some derivatives of the doubled verb

An example of a doubled verb in the perfect is madda "to stretch" underlyingly madada. It becomes yamuddu in the imperfect of the indicative active. Its imperative is mudd, its active participle is māddun, its maṣdar is maddun, its perfect passive is mudda, its imperfect is yumaddu, its passive participle is mamdūdun, the nouns of time and place are mamaddun and the noun of instrument is mimaddun.

1.2.1. Remarks concerning the phonological procedures in some of its forms:

I intend here to select many of the representative forms by underlining on the one hand the sequences that lead to the assimilation or to any other phonological procedure, and on the other hand, those that prohibit any possible change. Each of the presented sequences is formed of two identical segments that can either be vowelled or vowelless. It goes without saying that two vowelless segments cannot be combined together. The presenta-
tion of these sequences will enable me to discuss the rules determining these procedures.

As it shall be remarked, the assimilation is not carried out in all the forms of the doubled verb and some of its derivatives. There exist some forms in which the assimilation of the two identical segments is prohibited. A few examples are the forms of the perfect, imperfect and imperative in which the vowelled pronoun of the agent is suffixed, e.g. the perfect *madad-tu* "I stretched", the imperfect *tamdud-na* "you stretch /fem. pl." and the imperative *'umdud-na* "stretch!" (cf. 1.2.1.3.).

Other forms are affected by the following changes:

1) the assimilation of the identical segments that is carried out in the perfect, e.g. *sarra* from *sarara* "he gladdened", in the imperfect *yasurru* from *yasruru* "he gladdens" (cf. 1.2.1.2.) and in some cases of anomalous imperatives, e.g. *mudda, muddi* and *muddu* from *'umdud* "stretch! /2nd person of the masc. sing." (cf. 1.2.1.5.).

2) the elision of one of the identical segments in some cases of anomalous perfects, e.g. *zal-ta* from *zalil-ta* "you continued" (cf. 1.2.1.4.).

3) the substitution of one of the segments by a *y* in some cases of derived forms of the doubled verb, e.g. *tażannay-tu* from *tażannan-tu* "I formed an opinion" (cf. 1.2.1.7.).

The forms and the sequences that I shall discuss are the following:

1.2.1.1. The verbal noun: the sequence of two identical segments of which the 1st is vowelless and the 2nd is vowelled: the assimilation.
1.2.1.2. The perfect and the imperfect: the sequence of two vowelled identical segments: the assimilation.

1.2.1.3. The forms of the perfect, imperfect and imperative in which the vowelled pronoun of the agent is suffixed: the sequence of a vowelled segment preceding a vowelless identical segment: the prohibition of the assimilation.

1.2.1.4. Some cases of anomalous perfects: the sequence of a vowelled segment preceding a vowelless identical segment: the elision of one of the identical segments.

1.2.1.5. Some cases of anomalous imperatives: the sequence of a vowelled segment preceding a vowelless identical segment: the assimilation.

1.2.1.6. Some cases of anomalous imperatives: the sequence of a vowelled segment preceding a vowelless identical segment: the elision of one of the identical segments.

1.2.1.7. Some derived forms of the verb: the sequence of a vowelled segment preceding a vowelless identical segment: the substitution of one of the doubled segments by a $y$.

1.2.1.1. The verbal noun: the sequence of two identical segments of which the 1st is vowelless and the 2nd is vowelled: the assimilation:

The phonological procedure that can be carried out in a word in which the sequence invoved is that of a vowelless segment preceding a vowelled identical segment is the assimilation of the first segment to the second (for discussions see par. 2.3.1.). An example of such a case is the verbal noun *maddun* "an extension" (مَدْدَنٌ), which is formed according to the pattern *fa'elun*, with two dāls written of which the 1st $d$ is vowelless and the 2nd is vowelled (cf. par. 2.3.1.1.). After the assimilation of the
dáls it becomes maddun with the doubled d referred to in Arabic by the d carrying the šadda: (مشارکه).

1.2.1.2. The perfect and the imperfect: the sequence of two vowelled identical segments: the assimilation:

The common procedure that can affect the structure of the doubled verb in which the sequence involved is that of two vowelled identical segments is the assimilation of both the identical vowelled segments (for discussions see par. 2.3.2.).

In Form I of the 3rd person of the perfect of the doubled verb in which the assimilation is carried out, the vowel of the 2nd radical is dropped and the 2nd radical is assimilated to the 3rd. Thus:

\[
sarara \rightarrow \text{sarra "he gladdened"}
\]
\[
farara \rightarrow \text{farra "he escaped"}
\]
\[
\text{cāda} \rightarrow \text{cadda "he bit"}
\]
\[
\text{ḥabuba} \rightarrow \text{ḥabba "he loved"}
\]

As what concerns its imperfect, the phonological procedure that is observed is that the vowel of the 2nd radical is not dropped but switched to the 1st vowelless radical and the 2nd radical is assimilated to the 3rd:

\[
yasruru \rightarrow \text{yasurru "he gladdens"}
\]
\[
\text{yafriru} \rightarrow \text{yafirru "he escapes"}
\]
\[
\text{ya}c\text{ād}\text{u} \rightarrow \text{ya}c\text{ād}\text{u} "he bites"
\]
\[
\text{yahbubu} \rightarrow \text{yahubbu "he loves"}
\]

The following variations occur concerning the verbs radda, farra and cādđa (for them see Howell, IV, fasc. II, 1699). Asad and some other people say rudda, firra and cādđa by vowelling
the 1st radical with a đamma, kasra or fatḥa respectively and by assimilating the 2nd radical to the 3rd vowelled by a fatḥa. Ka‘b and Numair say ruddy, firri and ʿaḍdi by vowelling the 1st radical with a đamma, kasra or fatḥa respectively and by assimilating the 2nd radical to the 3rd radical vowelled with the kasra. Other variants pertaining to their dialect are ruddu, firri and ʿadda with the alliteration of the vowel of the 1st radical and with the 2nd radical assimilated to the 3rd that is given the same vowel as the 1st radical’s vowel.

1.2.1.3. The forms of the perfect, imperfect and imperative in which the vowelled pronoun of the agent is suffixed: the sequence of a vowelled segment preceding a vowelless identical segment: the prohibition of the assimilation:

As a general rule, the sequence of a vowelled segment preceding a vowelless segment prevents in most cases the assimilation (cf. par. 2.3.3.).

In the forms of the doubled verb occurring in the perfect, imperfect and imperative in which the vowelled agent pronouns are suffixed, the 3rd radical becomes vowelless to prevent the disliked succession of four vowelled segments. Hence the sequence is that of a vowelled segment preceding a vowelless segment.

In the case of the perfect, the vowelled agent pronouns are the -tu "1st person of the sing.", the -ta "2nd person of the masc. sing.", the -ti "2nd person of the fem sing.", the -n(a)ā "1st person of the pl.", the -tum "2nd person of the masc. pl.", the -tunna "2nd person of the fem. pl." and the -na "3rd person of the fem. pl.". Hence the forms implied for instance by the example madada "to stretch" are: madad-tu, madad-ta, madad-ti,
The vowelled agent suffix pronoun in the cases of the imperfect and of the imperative is the -na. It marks the 2nd and 3rd person of the fem. pl. in the case of the imperfect, namely _tamdud-na _"you stretch /fem. pl." _and _yamdud-na _"they stretch /fem. pl." _respectively, _and _the _2nd _person _of _the _fem. _pl. _in _the _case _of _the _imperative, _namely _`umdud-na _"stretch!"_. _In _all _these _cases _the _assimilation _of _the _two _identical _segments, _namely _the _2nd _radical _vowelled _d, _the _du, _to _the _3rd _radical _vowelless _d _is _forbidden _because _of _the _vowellessness _of _this _2nd _d _that _has _lost _its _vowel _in _order _to _prevent _the _succession _of _the _vowels _when _the _suffixed _-na _of _the _fem. _pl. _is _suffixed _to _the _word, _and _because _this _vowellessness _marks _as _well _the _imperative.

1.2.1.4. Some cases of anomalous perfects: the sequence of a vowelled segment preceding a vowelless identical segment: the elision of one of the identical segments:

The sequence of a vowelled segment preceding a vowelless segment allows in some anomalous cases the elision of one of the identical segments (cf. par. 2.3.3.).

In some anomalous cases of verbs occurring in the perfect in which one of the vowelled pronouns of the agent is suffixed, the elision of one of the identical segments can be carried out. An example is _zalil-ta _"you continued all day /masc. sing." _and _zalilti _"you continued all day /fem. sing." _, _with _the _3rd _radical _l _made _vowelless _on _account _of _the _suffixed _vowellessness _of _the _vowelled _agent _pronoun _in _order _to _prevent _the _succession _of _four _vowels. _This _sequence _of _a _vowelled _segment, _namely _the _vowelled _2nd _radical _l, _preceding _a _vowelless _identical _segment, _namely _the _vowelless _3rd _radical _l, _forbids _the _assimilation _for _this _sequence _see
The elision of one of the lāms is carried out by some, which implies that ُلاِل-تا and ُلاِل-تی become ُت-تا or ُت-تی respectively (cf. Ibn Māliḵ, La Ḩafīya 222, Ibn ʿAqīl, II, 584, Åkesson, Ibn Masʿūd 196: fol. 18b, Wright, II, 69, Howell, IV, fasc. II, 1836 sqq., de Sacy, I, 228). The alleviated form ُت-تا occurs in the sur. 20: 97 (ل-َلاِتْل-تا ُت-تی ُتی) "Of whom thou hast become a devoted worshipper", and ُت-تی in the sur. 56: 65 (ف-ُت-تی ُت-تی ُت-تی) "And ye would be left in wonderment" (cf. Howell, IV, fasc. II, 1836).

1.2.1.5. Some cases of anomalous imperatives: the sequence of a vowelled segment preceding a vowelless identical segment: the assimilation:

In some cases of doubled verbs occurring in the imperative, the assimilation of the identical segments is carried out in spite of the vowelless state of the 2nd segment following a vowelless segment, which by principle should prevent the assimilation (cf. par. 2.3.3.).

An example is the imperative of the 2nd person of the masc. sing. ُت-داد "stretch!" with the 1st ُت vowelled by a ُلamma and the 2nd ُت vowelless, which becomes ُت-تت, ُت-تی and ُت-تی (cf. Åkesson, Ibn Masʿūd 196: fol. 18b, Wright, II, 70). Those who dissolve are the ُلیغازیس whereas those who assimilate are the people of Tamīm (cf. Wright, II, 70 in the notes).

By contrast to the variant of the imperative of the 2nd person of the masc. sing. ُت-تت in which the ُلamma is given to the ُت on the analogy of the ُلamma of the 1st radical ُت (cf. Åkesson, Ibn Masʿūd 196: fol. 18b), it is impossible to use the variant ُت-تت "flee!" for the imperative of the 2nd person of the masc. sing. of ُت-تت "to flee", with the ُلamma vowelling the ُت instead
of the usual form *ifrir*, as the dāamma is disliked after the kasra of the 1st radical (cf. ibid). However firra and firri are possible variants to be used instead of *ifrir*, with the fatha and the kasra vowelling the r respectively (cf. de Sacy, I, 229, Wright, II, 70), as mudda and muddi mentioned above.

Both *adda* and *addi* are used as well as variants with the assimilation of the dāds instead of *iḍd* bite! /masc. sing. (cf. Wright, II, 70).

1.2.1.6. Some cases of anomalous imperatives: the sequence of a vowelled segment preceding a vowelless identical segment: the elision of one of the identical segments:

In some cases of doubled verbs occurring in the imperative of the 2nd person of the fem pl. in which the vowelled person of the agent, namely the -na, is suffixed to, the elision of one of the identical segments can be carried out (compare the cases of anomalous perfects in par. 1.2.1.4.).

An example is *iqrir-na* "stay quietly! /2nd person of the fem. pl.", from the root q r r with 2nd and 3rd radical r (cf. Ibn Manṣūr, V, 3578-3579), in which the 2nd r is vowelled on the basis that the sukūn marks the imperative and that the vowelled agent pronoun is suffixed to it. The sequence of the identical segments in *iqrir-na* is that of a vowelled segment, namely the 2nd radical r, preceding a vowelless segment, namely the 3rd radical r, which by principle should prevent the assimilation (for discussions concerning this sequence see 2.3.3.). The elision of the 1st r of the sequence is however a possibility after that its vowel is shifted to the q, and then the hamza of the imperative is also elided as it is not more needed now that the 1st radical q is vowelled. The resulting alleviated form is qir-na (cf. Ibn ṬAqīl, II, 584-585, Åkesson, *Ibn Masʿūd* 196: fol. 18b, Penrice, *Dic-
tionary 116). The variant qarna exists as well which pertains to another dialectal variant, and its base form is then the variant ʼiqrar-na. It can be mentioned that wa-qarna occurs instead of wa-qirna in the sur. 33: 33 (wa-qarna ʼin būyūtikunna) and that it is the reading of Nāfī and Āḥim (cf. Ibn ʼAqīl, II, 585).

1.2.1.7. Some derived forms of the verb: the sequence of a vowelled segment preceding a vowelless identical segment: the substitution of one of the doubled segments by a y:

The phonological procedure that is observed in some cases of the derived forms of the doubled verbs is that their 3rd radical, which is the second of two identical segments, is substituted by the y (for this substitution see par. 10.1.8.4.). Sībawaihi, II, 447 mentions the following verbs in which this substitution has been carried out (cf. Roman, Étude I, 361):

- Form V tasarrartu "I had a concubine" that becomes after the change of the 3rd radical r into a y tasarraytu.
- Form V tażannantu "I formed an opinion" that becomes after the change of the 3rd radical n into a y tażannaytu.
- Form V taqaṣṣaṣtu "I remembered [his words]" that becomes after the change of 3rd radical š into a y taqaṣṣaytu.
- Form IV ʼamlaltu "I dictated" that becomes after the change of 3rd radical ġ into a y ʼamlaytu.
- Another example that can be added is Form V taqaḍdiya used instead of taqaḍḍaḍa "to fly down swiftly" (cf. Zamahšarī, 173, Åkesson, Ibn Masʿūd 194: fol. 17b), in which the 3rd radical ʾd is changed into the y, and the ʾd is vowelled with a kasra instead of a fatha. The verb is found in the example taqaḍdiya l-bāzī "the hawk flew down swiftly" of the verse said by ʾAğgāğ

"Iḏā l-kirāmu btadaru l-bāʿa badar
taqqdīya l-bāzī '{dā l-bāzī kasar".  
"When the generous hasten to the noble deed,  
he hastens with the swoop of the falcon, when the falcon contracts his wings".

1.3. Conclusion

I have presented the doubled verb and some of its derivatives in this chapter. The phonological procedures due to the identical segments in some of its forms have been briefly discussed. It has been remarked that the assimilation is carried out if the sequence is that of two identical segments of which the 1st is vowelless and the 2nd is vowelled, e.g. *maddun* "an extension" (مَدَعَ) that becomes after the assimilation *maddun* (مَدَع٢) with one *d* given the *šadda* (for discussions see par. 1.2.1.1.), or a sequence of two identical segments of which both segments are vowelled, e.g. *sarara* that becomes after the assimilation *sarra* "to gladden" (for discussions see par. 1.2.1.2.).

The assimilation is mostly forbidden if the sequence is that of a vowelled segment preceding a vowelless segment, e.g. *madad-tu* "I stretched" (for discussions see par. 1.2.1.3.), but it is in some anomalous cases carried out as in the imperative *umdu* "stretch!" that becomes *mudda, muddi* and *muddu* (for discussions see par. 1.2.1.5.).

The elision of one of the identical segments is another possibility in some anomalous cases, as the perfect *zalil-ta* "you continued all day /masc. sing." that becomes after the elision *zal-ta* (for discussions see par. 1.2.1.4.) or the imperative *iqrir-na* "stay quietly! /2nd person of the fem. pl." that becomes after the elision *qir-na* (for discussions see par. 1.2.1.6.).
The substitution of one of the identical segments by a \( y \) is another alternative that can be carried out in some anomalous cases of the derived forms of the doubled verb, as Form V \textit{tasarrartu} "I had a concubine" that becomes after the change of the 3rd radical \( r \) into a \( y \) \textit{tasarraytu} (for discussions see par. 1.2.1.7.).

What remains is to extend a general discussion and analysis of the assimilation in the next chapter.
2. The assimilation

In connection with the doubled verb in which two identical segments are assimilated, I shall generally discuss the assimilation in this section.

The assimilation is termed 'idgām or 'iddiḡām. It involves a sequence of two identical segments (for discussions see par. 2.3., par. 1.2.1.), or of two different segments originating from one common point of articulation or from two close points of articulation (for discussions see par. 2.4). It can be carried out in one word or in two words following each other. Furthermore it differs in the pronunciation and in the writing (cf. 2.1.).

The reason why the assimilation is carried out is the dislike of repeating twice the same segment or of pronouncing two segments that are close to each other in the point of articulation. On the basis that the assimilation can be carried out between segments that are different, I shall briefly discuss the segments’ points of articulation and characters (cf. 2.2.). This presentation explains as well some of the procedures of the substitution that I discuss in chapter 10.
Hence I shall attempt to present the theories concerning the assimilation or the lack of assimilation in a few sequences formed of two identical or of different segments.

2.1. The assimilation in the pronunciation and in the writing
It can be remarked that there is a difference in the pronunciation and in the written representation of a word in which an assimilation is carried out.

In examples in which two identical segments are assimilated, e.g. madda, two dâls are uttered in the pronunciation, namely mad-da, of which the first d is vowelless and the second one vowelled: مَدْدَ. In the writing however, one d is written with a šadda over it: مَدْدَ.

In examples of nouns beginning with one of the “solar segments” to which the l- of the definite article al- is assimilated to (for discussions see par. 2.4.1.1.1.), the nouns are pronounced with the doubling of the solar segment and written with both the l- of the article and the solar segment given the šadda. An example is "ar-Rahmân" pronounced with a double r indicating the assimilation of the l- to the r, and written al-Rahmân الرَّحْمَانُ “the Merciful” with the l and with the r that carries the šadda.

2.2. The points of articulation and some of the characters of the segments that lead to the assimilation
An assimilation between two different segments requires that these segments originate either from a common point of articulation or from close points of articulation. There should as well exist an akinity in character between both these segments or that
a segment exhibits a strength of character in relation to the other, which would explain why the assimilation is carried out to it.

2.2.1. The segments’ common and neighbouring points of articulation:

Among the first grammarians who gave a detailed description of the segments’ points of articulation and characters, Sibawaihi, II, 452-455 can be mentioned. The following segments have common or neighbouring points of articulation (cf. also Versteegh, Language 20).

- The ṣ, h, and ā originate from "the farthest part of the throat" and the ǧ and h from "the nearest part of the throat". They are characterized as laryngals.
- The ŋ and ŋ originate from "the middle of the throat". They are characterized as pharyngals.
- The q originates from "the farthest part of the tongue, and the part of the upper palate above it". The k is "lower than the q from the next parts of the tongue and palate towards the upper palate". They are characterized as post-palatals.
- The ǧ, Ę and y originate from "the middle of the tongue, and from the middle part of the upper palate". They are characterized as pre-palatals.
- The t, d and the t originate from "the tip of the tongue and the roots of the two upper central incisors". The ɖ originates from "the first part of the side of the tongue, and the molars below (on the left or right side)". They are characterized as alveolars.
- The l originates from "between the nearest part of the side of the tongue, to the end of its tip, and the part of the upper palate next to it, a little above the premolar, canine, lateral incisor, and central incisor".
- The š, z and s originate from "the part that is between the tip of the tongue and the tops of the two upper central incisors". The n is from the tip of the tongue and the parts over the incisors". They are characterized as dentals.
- The ṣ, ḏ and ṭ originate from "the tip of the tongue and the edges of the two upper central incisors". They are characterized as interdentals.
- The f originates from "the inside of the lower lip and the edges of the two upper central incisors". The h, m and w originate from "what is between the lips". These segments are characterized as labials.

2.2.2. Some of the segments' characters:

Among the most specifying characters of the segments are those of al-mahmūsa "surd, low, soft, whispered, voiceless" and of al-maḡhūra "vocal, loud, clear, sonorous, voiced".

The surd segments are comprised in the sentence saṭaṣ Hawtha Ḥasfaḥ (cf. for them Zamaḥšarī, 189, Åkesson, Ibn Masʿūd 198: fol. 19a, Howell, IV, fasc. II, 1725). They are: the s, t, š, ḥ, ṭ, k, ḥ, š, f and h. Sibawaihi, II, 453 presents them in this order: the h, ḥ, ḥ, k, š, s, t, š, ṭ and f. They are weak in the stress laid upon them so that they do not impede the breath that therefore runs on with them.

The voiced segments are comprised in the sentence zillu Qaww al-raḥḍun ẓid ḡazā ḡundun muṭiʿun "the shade of Qaww was a shelter, when an obedient host made a raid" (cf. Howell, IV, fasc. II, 1726). They prevent the breath from running on with them. Sibawaihi, II, 453 presents them in this order: the ẓ, ā, ʾ, ġ, q, ḡ, y, ẓ, l, n, r, ṭ, d, z, ẓ, ḏ, b, m and w.
There are other secondary characters that the segments of these main groups can present (for a detailed presentation of the characters see. Sibawaihi, II, 454-455) as:

- *al-mustacliya* "the elevated", which are comprised in the combination *ṣaṭ ḍaẓ ḥagag* (cf. Zamaḥṣarī, 190, Åkesson, *Ibn Masʿūd* 198: fol. 19b), namely the *ṣ*, *ṭ*, *ḍ*, *ẓ*, *ḥ*, *ḍ*, and *q*. The first four segments, namely the *ṣ*, *ṭ*, *ḍ*, and *ẓ* are recognized as *al-muṭbaqa* "the covered" (cf. Sibawaihi, II, 455, Åkesson, *Ibn Masʿūd* 198: fol. 19b). Their point of articulation is covered by the upper palate. The three remaining segments, namely the *ḥ*, *ḍ*, and *q* do not present any covering.

- *al-munḥafeda* "the depressed segments" which are contrary to the elevated (cf. Zamaḥṣarī, 190, Howell, IV, fasc. II, 1729-1731).

- *al-ṣafir* "sibilant" which are the three segments: the *ṣ*, *ẓ*, and *s*, which make a whistling.

2.3. **The sequences of two identical segments: cases in which the assimilation is or is not carried out**

The sequences of two identical segments can occur in one word or in two words following each other. In the case of the assimilation which is carried out between two segments belonging to two different words, it is the ultimate segment of the first word that can be assimilated to the initial segment of the second word (for such cases see Sibawaihi, II, 455 sqq., Zamaḥṣarī, 191 sqq., Roman, *Étude I*, 390-427, Wright, I, 15-16). This assimilation is not as usual as the assimilation that is carried out in one word, and can be seen as belonging to the rarities. I can mention the following sequences:
2.3.1. the sequence of two identical segments of which the 1st is vowelless and the 2nd vowelled: the necessity of the assimilation.

2.3.2. the sequence of two identical segments which are both vowelled.

2.3.3. the sequence of two identical segments of which the 1st is vowelled and the 2nd vowelless: the prohibition of the assimilation. The assimilation in some anomalous cases.

Not all the sequences can result in the assimilation of the 1st segment to the 2nd. It shall be noticed that the most important condition of the assimilation is the vowelling of the 2nd segment.

2.3.1. The sequence of two identical segments of which the 1st is vowelless and the 2nd vowelled: the necessity of the assimilation:

The vowelless state of the 1st segment preceding a vowelled identical segment answers to the condition that makes the assimilation necessary.

This sequence can be found in one word or in two words following each other.

2.3.1.1. The assimilation that is carried out in one word:

An example of such a case is maddun (مَدُن) "an extension" that is formed according to the pattern falun, in which the necessary assimilation of the 1st d to the 2nd d is carried out (cf. 1.2.1.1.).

Another example is Form VIII ṭittağara "to trade" (cf. Åkesson, Ibn Mas'ūd 196: fol. 19a, par. 2.4.1.1.3.1.:2) from tağara with 1st t radical. In the base form ṭittağara, the 1st
vowelless t radical is followed by the vowelled t infix, the ta, of Form VIII ʿiftaʿala, which necessitates the assimilation of the t to the t. Hence ʿittaḡara is written with one t carrying the šadda in Arabic (إِتْتَجَرَ) as an indication of the assimilation (for discussions concerning the assimilation of the 1st vowelless radical to the infixed vowelled t of Form VIII of the perfect ʿiftaʿala see par. 2.4.1.1.3.1.).

2.3.1.2. The assimilation that is carried out in two words following each other:

The assimilation can be carried out from a 1st vowelless segment, which is the last segment of a word, to a 2nd identical vowelled segment that is the initial segment of the word following it.

An example of such a case is (ʿihšaw w(a)āqidan) (إِحْشَوُواَكِداً) "Fear [2nd person of the masc. pl. of the imperative] one who sets fire!" (cf. Sibawaihi, II, 457) in which the 1st w is vowelless and the 2nd w is vowelled by a fathā. The reason of the vowellessness of the 1st w is that the verb ʿihšaw is an imperative in the 2nd person of the masc. pl. with the suffixed pronoun of the masc. pl., the ū, vowelless and preceded by a fathā which results in aw. The example becomes after the assimilation of the vowelless w to the vowelled wa, ʿihšaw w(a)āqidan (إِحْشَوُواَكِداً) with the 2nd w carrying the šadda as an indication of the assimilation.

2.3.2. The sequence of two identical segments which are both vowelled

The sequence of two identical vowelled segments leads mostly to the assimilation (cf. par. 1.2.1.2.), except in some
anomalous cases as the case of ِhayiya "to live" (cf. par. 2.3.2.2.1.), in the coordinatives and in some measures that can be mixed up with other measures (cf. par. 2.3.2.2.2.).

The assimilation can be carried out in one word or in two words, and in the latter case the assimilation is a possibility that pertains to the rarities.

2.3.2.1. The assimilation that is carried out in one word:

The sequence occurs in the common following cases:

1- In examples of doubled verbs in the perfect, e.g. sarara resulting after the assimilation in sarra (for discussions see par. 1.2.1.2.).

2- In examples of verbs of Form V tafa'ala or Form VI tafl(a)āala in which the vowelled prefixed t is assimilated to the 1st vowelled radical t following it (for discussions see par. 2.4.2.1.1.). An example is Form V tatarrasa "shielded himself" that becomes after the assimilation ُittarasa (cf. Howell, IV, fasc. II, 1829). The vowelled t prefix, i.e. the ta, is assimilated to the vowelled 1st radical t, i.e. the ta, resulting in ttarasa and the prosthetic hamza, the ُi, is then prefixed to prevent beginning the word with a vowelless segment.

3- In examples of verbs of Form VIII in the imperfect yafta'ilu in which the vowelled infixed t is assimilated to the 2nd vowelled radical t following it (for discussions see par. 2.4.2.1.2.). An example is yaqtatilu "to contend among themselves" that becomes after the assimilation yaqattilu (cf. Åkesson, Ibn Mas'ūd 200: fol. 20b). The vowelled t prefix, i.e. the ta, is assimilated to the vowelled 2nd radical, i.e. ti, after that its fatḥa vowel is shifted to the 1st radical q. It can be noted that both variants yaqattilu and yaqittilu occur (cf. Zamahšarī, 195, Howell, IV, fasc. II, 1807).
2.3.2.2. Cases in which the assimilation is not carried out in one word:

The assimilation is mostly not carried out in the case of hayiya "to live" (cf. par. 2.3.2.2.1.), in the co-ordinatives and in some special measures (cf. 2.3.2.2.2.).

2.3.2.2.1. An anomalous case: hayiya

The assimilation is not carried out in some dialectal variants in the doubled verb with two weak radicals hayiya "to live" (for discussions concerning it see Sībawaihi, II, 430-431, Zamaḥṣarī, 187, Ibn ʿAqīl, II, 588, Åkesson, Ibn Masʿūd 194: fol. 18a, Howell, IV, fasc. I, 1624 sqq., fasc. II, 1693 sqq., Wright, II, 94-95, Vernier, I, 342-343, de Sacy, I, 259-260). In spite of the fact that two vowelled identical segments are combined in it, namely the yi and the ya, they are not in most cases assimilated together resulting in hayya. The assimilation is carried out however in some dialectal variants. The reason why some prefer not to assimilate the yāʾs in the perfect resulting in hayya, is that they feel obliged by analogy to assimilate them in the imperfect causing the dāamma to vowel the y which is deemed as a heavy combination, i.e. yahayyyu would have to be said instead of yahy(a)ā with final ʾalif maqṣūra. Those who assimilate in the perfect by saying hayya consider both yāʾs as two identical vowelled segments in one word. They avoid however to assimilate in the imperfect because of the implied heavy combination. This means that yahy(a)ā with final ʾalif maqṣūra occurs by all instead of yahayyyu. Furthermore, the 3rd radical y has been dropped by some in the perfect of the 3rd person of the masc. pl., who use hay(u)ū instead of hayiyū (cf. Sībawaihi, II, 431, Ibn Manẓūr, II, 1080). This elision of the y implies that it is considered as unnecessary to the word’s structure (cf. Åkesson, Ibn
Mas'ūd 194: fol. 18a). In the light that the 2nd segment among two identical segments is not necessary for the structure of the word, it can be understood why the assimilation is not always carried out in the perfect hayiya, as the condition of the assimilation is that the 2nd segment among the identical segments should be existent in the structure and not submitted to an elision.

2.3.2.2.2. The coordinatives and some special measures:

The assimilation is forbidden in al-‘ilḥāqiyyāt "the coordinatives", in spite of the vowelling of two identical segments in them. These patterns refer to those words that are rendered quasi-coordinate to other words of which the radicals are greater in number than theirs (cf. Lane, II 3008). An example is qar-dadun "elevated ground" (cf. Sibawaihi, II, 448, Åkesson, Ibn Mas'ūd 194: 17b) from the root qarida "it became contracted together", in which the 2nd d is added to the form, and no assimilation is to be carried out from the first vowelled d, the da, to the other vowelled d, the dun, on account that the word is quasi-coordinate to the measure fa'īlalun (cf. Lane, II, 2513).

The assimilation is as well forbidden in some words that are formed according to special measures (cf. Sībawaihi, II, 445-446, Åkesson, Ibn Mas'ūd 194: fol. 18a) as fa'īlun, fu'ulun, fu'alun and fa'alun, so that they are not mixed up with other words in which the assimilation is carried out. Some examples are:

- ṣakikun "the colliding of the knees in running" formed according to fa'īlun to avoid mixing it up with ṣakkun "a written acknowledgement of a debt".

- sururun "bedsteads" formed according to fu'ulun to avoid mixing it up with surrun "the navel-string of a child".
- ḡudadun "the stripes that are on the back of the ass" formed according to fuʿalun to avoid mixing it up with ḡuddun "a part of the river near the land".

- ṭalalun "the remains of a dwelling or house" formed according to faʿalun to avoid mixing it up with ṭallun "weak rain".

2.3.2.3. The assimilation that is carried out in two words following each other:

The assimilation can be carried out from a 1st vowelled segment, which is the 1st segment of a word, to a 2nd identical vowelled segment that is the initial segment of the word following it. An example of such a case is the assimilation of the bāʾs in the sur. 2: 19 (la-ḍahaba bi-samʿihim) that becomes la-ḍahab bi-samʿihim (لَدَهَب بِسَمْعِهِمْ) "He would take away their faculty of hearing", read so by Abū ʿAmr (cf. Zamaḥṣari, 195, Ibn Yaʿṣiṣ, X, 147) with the fathā of the 1st b, the bāʾ, elided and the šadda given to the 2nd b as an indication of the assimilation. An analysis of la-ḍahaba bi-samʿihim before that the assimilation of the bāʾs is carried out in it, shows that the first b which is the 3rd radical of ḍahaba, is vowelled by a fathā that is the marker of the undecinable perfect and the 2nd b which is the 1st segment of the word following it, is vowelled by the kasra as it is the preposition bi.

2.3.3. The sequence of two identical segments of which the 1st is vowelled and the 2nd vowelless: the prohibition of the assimilation. The assimilation in some anomalous cases:

The sequence of two identical segments of which the 1st is vowelled and the 2nd is vowelless forbids the assimilation in most of the cases (for discussions see 1.2.1.3.), because the condition of
the assimilation is that the 2nd segment should be vowelled. However, it can be remarked that the assimilation is carried out in some anomalous cases, as e.g. the imperative of the 2nd person of the masc. sing. ٜumedٞ "stretch!" with the vowelled du followed by a vowelless d, that becomes after the assimilation mudda, muddi and muddu (for discussions see 1.2.1.5.).

The elision of one of the identical segments is however a possibility in some anomalous cases, e.g. the perfect of the 2nd person of the masc. sing. ęalit-ta "you continued all day" that becomes after the elision of one of the lâms ęal-ta (for discussions see 1.2.1.4.) and the imperative of the 2nd person of the pl. ٜiqırır-na "stay quietly!" that becomes after the elision of one of the ra's qir-na (for discussions see par. 1.2.1.6.).

The substitution of one of the identical segments by a y is another alternative in some anomalous cases, e.g. Form V tasarartu "I had a concubine" that becomes after the change of the 3rd radical r into a y tasarraytu (for discussions see par. 1.2.1.7.). Thus there are four possibilities to be considered concerning the sequence of a vowelled segment followed by a vowelless identical segment. One of them is that the assimilation is forbidden, the second is that the assimilation is possible, the third is that of one of the segments is elided, and the fourth is that one of the segments is substituted by a y.

It can be noted that the sequence of a vowelled segment preceding a vowelless segment can only occur in one word, and not in two words following each other, on account that the 1st segment in the second word can only be vowelled and not vowelless, as it is impossible to begin the word with a vowelless segment in Arabic.
2.4. The sequence of two different segments: cases in which the assimilation is or is not carried out

The sequence of two different segments can result in the assimilation of one to the other on the condition that they originate from the same point of articulation or from two close points of articulation. I can take up the following sequences in which the vowelling or the absence of a vowel of one of the segments is considered:

2.4.1. the sequence of two different segments of which the 1st is vowelless and the 2nd is vowelled: the assimilation.

2.4.2. the sequence of two different segments which are both vowelled.

2.4.1. The sequence of two different segments of which the 1st is vowelless and the 2nd is vowelled: the assimilation:

The vowelless state of the 1st segment preceding a vowelled segment that is close to it in the point of articulation or that is akin to it in character or that is different and having a stronger character than it, can result in the assimilation.

This sequence can be found in one word or in two words following each other, the latter pertaining to the rarities.

2.4.1.1. The assimilation that is carried out from the 1st vowelless segment to a 2nd different vowelled segment in one word:

I propose for this study the assimilation of the vowelless l- of the definite article al- to the vowelled solar segment of the word that it is prefixed to, the assimilation of the 3rd radical d of a verb in the perfect to the pronoun of the agent beginning with the t that is suffixed to it, and the vowelled infixed t of Form VIII 'ifta'ala to the 1st vowelless radical preceding it.
2.4.1.1.1. The assimilation of the vowelless _l_ of the article _al_- to the vowelled solar segment that begins a noun:

It is carried out in some examples of definite nouns to which the article _al_- is prefixed to, that begin with one of the "solar segments", namely the _t, ū, d, ð, r, z, ʃ, s, d, ð, ū, l_ and _n_ (cf. Wright, I, 15, Bakkūş, Taṣrīf 66). It can be remarked concerning them that the vowelless _l_- is assimilated to this vowelled segment. An example is _al-Raḥmān_ "the Merciful" in which the _r_ carries the šadda in Arabic as an indication of the assimilation of the _l_- to it (cf. par. 2.1.). The reason why the _l_- is assimilated to those segments is that they all originate from between the teeth to the lower part of the palate, and thus are all close to the point of articulation of the _l_ (cf. Bakkūş, Taṣrīf 66).

2.4.1.1.2. The assimilation of the 3rd radical _d_ in verbs that occur in the perfect, to the vowelled suffixed pronoun of the agent that begins with the _t_:

In the cases of verbs whose 3rd radical is a _d_ that occur in the perfect in the persons in which the vowelled pronoun of the agent beginning with the _t_ is suffixed to, namely the _-tu_ "1st person of the sing.", _-ta_ "2nd person of the masc. sing.", _-ti_ "2nd person of the fem. sing.", _-tum_ "2nd person of the masc. pl.", _-tunna_ "2nd person of the fem. pl." and _-tumā_ "2nd person of the dual", an assimilation is carried out from the vowelless _d_ to the vowelled _t_ following it (cf. Vernier, I, 57).

Some examples are _madad-tu_ "I stretched", _madad-ta_ "you stretched /masc. sing." and _madad-ti_ "you stretched /fem. sing.", in which the _d_ is assimilated to the _t_ which is indicated in Arabic by the šadda over the _t_. The reason of this assimilation is the
proximity of the d to the t in the point of articulation as they both are alveolars (for the segments see par. 2.2.1.).

2.4.1.1.3. The assimilation that is carried out between the vowelled infixed t of Form VIII of the perfect ʾiftaʾala and the 1st vowelless radical preceding it:

The infixed t of Form VIII of the perfect ʾiftaʾala is either assimilated to or is assimilated by one of the vowelless fourteen segments preceding it that is the 1st radical (for a general study of this assimilation see Wright, II, 66-67, Howell, IV, fasc. II, 1803 sqq.). These segments are: 1- the ʾ, 2- t, 3- t, 4- d, 5- d, 6- z, 7- s, 8- š, 9- s, 10- d, 11- t, 12- z, 13- w and 14- y (cf. Åkesson, Ibn Masʿūd 196-198: fol. 19a).

It is possible to distinguish between cases in which the 1st vowelless radical is assimilated to the infixed vowelled t of Form VIII of the perfect ʾiftaʾala (cf. 2.4.1.1.3.1.) and cases in which the infixed vowelled t of Form VIII of the perfect ʾiftaʾala is assimilated to the 1st vowelless radical (cf. 2.4.1.1.3.2.).

2.4.1.1.3.1. Cases in which the 1st vowelless radical is assimilated to the infixed vowelled t of Form VIII of the perfect ʾiftaʾala:

The 1st vowelless radical is assimilated to the vowelled infixed t if it is a: 1- ʾ, 2- t, 3- possibly t, 4- w and 5- y.

I can illustrate the phonological procedure that is carried out in the perfect of Form VIII as follows: ʾiftaʾala with the vowelless 1st radical f followed by the vowelled infix t becomes ʾittaʾala after that the 1st radical f is assimilated to the vowelled t.
I- The assimilation of the 1st radical vowelless ۱ to the vowel­elled infixed ۲ of Form VIII ۰iftaّala:

An example is Form VIII ۱َتَاّدا which becomes after the assimilation ۱َتَاّدا "to take" (cf. Åkesson, Ibn Mas’ūd 196: fol. 19a, Howell, IV, fasc. II, 1848 sqq., de Sacy, I, 236, Wright, II, 76-77, Lane, I, 29, Fleisch, Traité I, 150). The base form ۱َتَاّدا is from ۱َاّدا "to take", a verb with 1st hamza radical. The process leading to the assimilation is not a direct process and involves as well the substitutions of segments, namely the ۱ for the ۱ and the ۲ for the ۱. For this reason this assimilation is considered as anomalous. The changes can be illustrated with the following: ۱َتَاّدا with the vowelless ۱ preceded by a kasra becomes ۱ُتَاّدا with the ۱ changed into a ۱ on account of the influence of the kasra preceding it. As the vowelless ۱ precedes the vowelled ۲, the ۱ is changed into the ۲ and then the ۲ is assimilated to the ۲ so that it becomes ۱َتَاّدا ( إِتْحَدّ). This change of the ۱, which is not the underlying radical from the form ۱ُتَاّدا, into the ۲ resulting in ۱َتَاّدا, is considered as anomalous because the ۱ is already substituted for the ۱ that is the radical of the form ۱َتَاّدا. For this reason some grammarians preferred to believe that ۱َتَاّدا is formed from the variant tahîda and not from ۱َاّدا, and their theory was integrated in the language (cf. Ibn Manżūr, I, 37, Zağğâği, Mağâlis 333, Wright, II, 76-77, Lane, I, 29, Fleisch, Traité I, 150).

2- The assimilation of the 1st radical vowelless ۰ to the vowel­elled infixed ۱ of Form VIII ۰iftaّala:

An example is Form VIII ۰ِتَاّغا "to trade" that becomes after the assimilation ۰ِتَاّغا with one ۱ carrying the šadda in Arabic as an indication of the assimilation (cf. par. 2.3.1.1.).
3- The assimilation between the 1st radical vowelless t and the vowelled infixed t of Form VIII ʾiftaʾala:

The vowelless 1st radical t can be assimilated to the vowelled infixed t as well as the vowelled infixed t can be assimilated to the vowelless 1st radical t. An example is Form VIII ʾittāʾara "to get one's revenge" (cf. Åkesson, Ibn Masʿūd 196: fol. 19a) with the vowelless t preceding the vowelled t that can become after the assimilation of the t to the t ʾittāʾara or after the assimilation of the t to the t ʾittāʾara.

4- The assimilation of the 1st radical vowelless w to the vowelled infixed t of Form VIII ʾiftaʾala:

An example is Form VIII ʾiwṭaʾada "to accept a promise" (from waʾada "to promise") with the vowelless w preceding the vowelled t that becomes after the assimilation of the w to the t ʾittāʾada (cf. de Sacy, I, 240, Wright, II, 80-81, Lane, II, 2902, Åkesson, Ibn Masʿūd 200: fol. 20a-20b and this study par. 5.2.1.8.)

The w is changed into a y on account of the kasra preceding it before that the assimilation to the infixed t is carried out. Hence ʾiwṭaʾada becomes at first ʾiyṭaʾada "(cf. Wright, II, 80), and then ʾittāʾada.

5- The assimilation of the 1st radical vowelless y to the vowelled infixed t of Form VIII ʾiftaʾala:

An example is Form VIII ʾiyṭasara "to play at hazard" (cf. Zamaḥšarī, 175, 178, Åkesson, Ibn Masʿūd 200: fol. 20b, de Sacy, I 240, Wright, II, 80-81 and this study par. 5.4.1.2.) from yasara "to be easy", with the vowelless y preceding the vowelled t, that becomes after the assimilation ʾittasara with the y assimilated to the t resulting in the doubled t. The variant
"ittasara with this assimilation is preferred to the base form "iytasara because the vowelling of the " with a kasra preceding the y in "iytasara is deemed as a heavy combination.

2.4.1.1.3.2. Cases in which the infixed vowelled t of Form VIII of the perfect "ifta'ala is assimilated to the 1st vowelless radical preceding it:

The surd and soft infixed t is assimilated to the 1st radical if this radical originates from the same point of articulation or from a close point of articulation to it, and that it is stronger than it in character. Thus the surd t is assimilated to the 1st radical if it is a voiced segment (for the voiced and surd segments see par. 2.2.2.) because the voiced segment is considered as stronger than the surd segment in the sound (cf. Bakkūš, Taṣrīf 40, 66), or if it is a covered segment (cf. ibid, 66; and for the covered segments see par. 2.2.2.) or if it is a sibilant segment (for the sibilant segments see 2.2.2.) on account of the strength of character of the covered segment and of the sibilant segment in relation to the soft segment. Among the fourteen segments mentioned above (see 2.4.1.1.3.), the 1st radical's segment to which the alveolar surd and soft t is assimilated to can be: 1- the alveolar and voiced d, 2- the interdental and voiced d, 3- the dental, voiced and sibilant z, 4- the dental, surd and sibilant š, 5- the alveolar and voiced d, 6- the alveolar and voiced t, 7- the interdental and surd t, 8- the dental, surd and sibilant s and 9- the pre-palatal and surd š.

The phonological procedure that is carried out in the perfect of Form VIII is illustrated as follows: "ifta'ala with the vowelless 1st radical f followed by the vowelled infix t becomes "iffa'ala after that the vowelled t is assimilated to the 1st radical f.
1- The assimilation of the vowelled infixed t of Form VIII ʿiftaʾala to the 1st radical vowelless d preceding it:

An example is Form VIII ʿidt(a)āna "to buy upon credit" (cf. Zamaḥṣāri, 176, Ibn ʿAqīl, II, 582, Åkesson, Ibn Masʿūd 198: fol. 19a, Lane, I, 942-943) with the vowelless d preceding the vowelled t that becomes after the assimilation ʿidd(a)āna with the t assimilated to the d resulting in the doubled d.

The reason of the substitution of the d for the t before that the assimilation is carried out in it resulting in the doubled d, is the common point of articulation of both these segments as they both are alveolars (for the segments see par. 2.2.1.). As for the reason why it is specifically the t that is assimilated to the d and not vice versa, it is so that the character of the voiced dental segment is considered as stronger than the surd segment.

\[ \begin{align*}
\text{\'idt(a)āna} & \rightarrow \text{\'idd(a)āna} \\
\text{d + t} & \rightarrow \text{dd} \\
\text{voiced + surd} & \rightarrow \text{voiced + voiced}
\end{align*} \]

2- The assimilation of the vowelled infixed t of Form VIII ʿiftaʾala to the 1st radical vowelless d preceding it:

An example is Form VIII ʿidtakara "to remember" with the vowelless d preceding the vowelled t that becomes after the assimilation ʿiddakara with the t assimilated to the d resulting in the doubled d. The reason why the t is assimilated to the d and not vice versa is that the surd t is weaker in character than the voiced d (cf. Bakkūş, Taṣrif 66).

\[ \begin{align*}
\text{\'idtakara} & \rightarrow \text{\'iddakara} \\
\text{d + t} & \rightarrow \text{dd} \\
\text{voiced + surd} & \rightarrow \text{voiced + voiced}
\end{align*} \]
Other variants are "iiddakara with the doubling of the d and "iddakara with the d following the d (cf. Zamaḥṣarī, 195, Ibn ʿAqīl, II, 582, Åkesson, Ibn Masʿūd 198: fol. 19a, de Sacy, I, 222, Vernier, I, 344-345, Wright, II, 66, ʿAbd al-Tawwāb, Taṭawwur 29).

The process concerning the 1st variant "iiddakara is that the t of the base form "idtakara is changed into the d. The reason of this substitution is the closeness of the points of articulation of the d and the t on account that they both are alveolars (for the segments see par. 2.2.1.). In the second variant "iddakara, the d of "iddakara is changed into a d and both the dāls are than assimilated together. The reason why the substitution of the d for the d is possible is the proximity of the alveolar d to the interdental d and the similarity of both their characters as they are both voiced segments.

3- The assimilation of the vowelled infixed t of Form VIII "iftaʿala to the 1st radical vowelless z preceding it:

An example is Form VIII "izt(a)āna "to be ornamented" (cf. Zamaḥṣarī, 176, 196, Åkesson, Ibn Masʿūd 198: fol. 19b, Wright, II, 66, Lane, I, 1279) with the vowelless z preceding the vowelled t that becomes after the assimilation "izz(a)āna with the t assimilated to the z resulting in the doubled z. The reason why the t is assimilated to the z is that there is a proximity between the alveolar t and the dental z (for the segments see par. 2.2.1.). As for why it is specifically the t that is assimilated to the z and not vice versa, it is that the surd and soft t is weaker in character than the voiced and sibilant z (for the segments' characters see par. 2.2.2.). Thus:
Chapter 2: The Assimilation

4- The assimilation of the vowelled infixed t of Form VIII 
\( \text{\textdagger} \text{ift`} \text{ala} \) to the 1st radical vowelless s preceding it:

An example is Form VIII \( \text{\textdagger} \text{i\textdagger staba} \) "to acquire patience" (cf. Zama\h{s}ar\i, 176, \Åkesson, Ibn Mas\c{c}\'ud 198: fol. 19b-20a, Wright, II, 67, Vernier, I, 345, this study par. 10.1.15.1.) with the vowelless s preceding the vowelled t that becomes after the assimilation \( \text{\textdagger} \text{issabara} \) with the t assimilated to the s resulting in the doubled s. The reason why the t is assimilated to the s is that there is a proximity between the alveolar t and the dental s (for the segments see par. 2.2.1.). As for why it is the t that is assimilated to the s and not vice versa, it is because the soft t is weaker in character than the sibilant s. Thus:

\[
\begin{align*}
\text{\textdagger} \text{i\textdagger stabara} & \rightarrow \text{\textdagger} \text{issabara} \\
\text{\textdagger} \text{s} + \text{t} & \rightarrow \text{\textdagger} \text{ss} \\
sibilant + soft & \rightarrow \text{sibilant + sibilant}
\end{align*}
\]

Another variant concerning this verb is the substitution of the emphatic t for the t on account of the influence of the emphatic s, namely \( \text{\textdagger} \text{isttabara} \) for \( \text{\textdagger} \text{istabara} \).

5- The assimilation of the vowelled infixed t of Form VIII 
\( \text{\textdagger} \text{ift`} \text{ala} \) to the 1st radical vowelless \( \text{\textdagger} \text{d} \) preceding it:

An example is Form VIII \( \text{\textdagger} \text{\textdagger} \text{id\textdagger taraba} \) "to acquire patience" (cf. Zama\h{s}ar\i, 195, \Åkesson, Ibn Mas\c{c}\'ud 198-200: fol. 20a, de Sacy, I, 222, Wright, II, 67, Vernier, I, 345, par. 10.1.15.1.)
with the vowelless َد preceding the vowelled َت that becomes after the assimilation ِيدَدارَبَة "to be in a state of agitation" with the َت assimilated to the َد resulting in the doubled َد. The reason why the َت is assimilated to the َد is the proximity of their points of articulation as they both are alveolars (for the segments see par. 2.2.1.). As for why it is specifically the َت that is assimilated to the َد and not vice versa, it is because the soft َت is weaker in character than the covered َد. Thus:

\[
\begin{align*}
\text{3ِيدَتَرابَة} & \rightarrow \text{3ِيدَدارَبَة} \\
\dd & \rightarrow \dd \\
\text{covered + soft} & \rightarrow \text{covered + covered}
\end{align*}
\]

Another possibility concerning this verb is the substitution of the َت for the َت on account of the influence of the preceding 1st radical emphatic َد, namely ِيدَتَرابَة instead of ِيدَتَرابَة (cf. par. 10.1.15.1.)

6- The assimilation of the vowelled infixed َت of Form VIII ِيتفَّالاَبَة to the 1st radical vowelless َت preceding it:

An example is Form VIII ِيتفَّالاَبَة "to seek" (cf. زماحشري, 195, Ibn Yaَتِش, X, 46, أكesson, Ibn Masَتِعد 200: fol. 20a, Wright, II, 67, par. 10.1.15.1.) with the vowelless َت preceding the vowelled َت that becomes after the assimilation ِيتفَّالاَبَة with the َت assimilated to the َت resulting in the doubled َت. The reason why the َت is assimilated to the َت is their common point of articulation as they are both alveolars (for the segments see par. 2.2.1.). As for why it is specifically the َت that is assimilated to the َت and not vice versa, it is because the soft َت is weaker in character than the covered َت. Thus:
7- The assimilation of the vowelled infixed t of Form VIII 
\(\text{'iṭtalaba} \rightarrow \text{'iṭtalaba} 
\(t + t \rightarrow !!
\text{covered + soft} \rightarrow \text{covered + covered}
\)

An example is Form VIII 
\(\text{'iztalama} \) "to take upon oneself the bearing of the wrong" with the vowelless \(z\) preceding the vowelled \(t\) that becomes after the assimilation 
\(\text{'izzalama} \) (cf. Åkesson, Ibn Mas'ūd 200: fol. 20a, par. 10.1.15.1.). The reason why the \(t\) is assimilated to the \(z\) is the proximity of the point of articulation of the alveolar \(t\) to the interdental \(z\) (for the segments see par. 2.2.1.). As for why it is the \(t\) that is specifically assimilated to the \(z\) and not vice versa, it is that the soft \(t\) is weaker in character than the covered \(z\).

\(\text{'iztalama} \rightarrow \text{'izzalama} 
\(z + t \rightarrow zz
\text{covered + soft} \rightarrow \text{covered + covered}
\)

Two other variants exist namely 
\(\text{'iztalama} \) and 

As what regards the variant 
\(\text{'iztalama} \), the \(t\) of its base form 
\(\text{'iztalama} \) is changed into the \(t\) on account of the proximity of the points of articulation of the \(t\) and \(t\), as they both are alveolars (for the segments see 2.2.1.). As for why the \(t\) is assimilated to the \(t\), it is because the soft \(t\) is weaker in character than the covered \(t\).
Concerning the variant *'ittalama*, the żā’s from the variant *'izzalama* are changed into the ṭā’s. This substitution of the ṭ for the ż and vice versa is possibly carried out because of both these segments’ common character in being among the emphatic segments. It can be mentioned that both Form I of the passive *yuzlamu* and Form VIII of the active voice *yażtalimu* occur in this verse said by Zuhair b. Abi Sulmā al-Muzani praising Harim b. Sinān, cited by Sibawaihi, II, 472, Ibn Ğinni, *Sirr I*, 219, Mu‘addib, *Taşrif* 170 Zamaḥšarī, 195, Ibn Ya`tīš, X, 47, How­ell, IV, fasc. II, 1813, Åkesson, *Ibn Mas‘ūd* 229: (197):

"Huwa l-ḡawādu l-ladi yu‘ṭka nā‘ilahu
‘afwan wa-yuzlamu ‘ahyānan fa-yażtalimu".
"He is the magnanimous, who gives you his largesse spontane­ously;
and is wronged at times, and than puts up with that wrong".

All the three variants *fa-yazzalimu*, *fa-yattalimu* or *fa-yaztalimu* as being the last word of the rime have been cited in different works (cf. Fischer/Braunlich, *Šawāhid* 227).

8- The assimilation of the vowelled infixed t of Form VIII *'ifta‘ala* to the 1st radical vowelless t preceding it:

An example is Form VIII *'itta‘ara* "to get one's revenge" that becomes after the assimilation *'itta‘ara* (cf. 2.4.1.1.3.1:3).

9- The assimilation of the vowelled infixed t of Form VIII *'ifta‘ala* to the 1st radical vowelless s preceding it:

An example is Form VIII *'istama‘a* "to listen" with the vowelless s preceding the vowelled t that becomes after the as­similation of the t to the s *'issama‘a* (cf. Sibawaihi, II, 472, Zamaḥšarī, 196, Åkesson, *Ibn Mas‘ūd* 198: fol. 19b, de Sacy, I, 220, Wright, II, 66).
The reason why it is possible to substitute the s for the t is that they originate from close points of articulation, as the alveolar t is close to the dental s (for the segments see par. 2.2.1.) and they are both similar in character in being among the surd segments (for the segments’ characters see par. 2.2.2.). However it is only the t than can be assimilated to the s and not vice versa because the s is a sibilant segment, and thus offers a stronger character than the t.

\[ \text{\'istama'\textsuperscript{c}a} \rightarrow \text{\'issama'\textsuperscript{c}a} \]

\[ s + t \rightarrow ss \]

\[ \text{sibilant + soft} \rightarrow \text{sibilant + sibilant} \]

10- The assimilation of the vowelled infixed t of Form VIII \textit{\textsuperscript{3}ifta'\textsuperscript{al}a} to the 1st radical vowelless \textit{s} preceding it:

An example is Form VIII \textit{\textsuperscript{3}i\textsuperscript{\textit{s}}tah\textsuperscript{\textit{b}}\textit{aha}} "to liken" with the vowelless \textit{s} preceding the vowelled \textit{t} that becomes \textit{\textsuperscript{3}i\textsuperscript{\textit{s}}\textsuperscript{\textita}sh\textsuperscript{\textit{b}}\textit{aha}} after the assimilation of the \textit{t} to the \textit{s} (cf. Åkesson, \textit{Ibn Mas\textsuperscript{\textit{c}}
\textsuperscript{\textit{d}}} 198: fol. 19b).

The reason why this substitution is possible is the proximity of the point of articulation of the alveolar \textit{t} to the pre-palatal \textit{s} (for the segments see par. 2.2.1.) and both these segments’ common character in being among the surd segments (for the segments’ characters see par. 2.2.2.).

2.4.1.2. The assimilation that is carried out from the 1st vowelless segment to a 2nd different vowelled segment in two words following each other:

The assimilation can be carried out from a 1st vowelless segment which is the last segment of a word to a 2nd vowelled segment that is the initial segment of the word following it (for
some references to different works that treat this sort of assimilation see 2.3.), if both different segments originate from a common point of articulation of from close points of articulation.

An example is the reading of the sur. 4: 81 *bayyat tāʾifatun* in which the surd and soft *t* is assimilated to the voiced and covered *t* resulting in *bayyat tūāʾifatun* (بَيَّت طائفة) "A section of them meditate all night" (cf. Cantineau, *Études* 35). The sentence is written in Arabic with the *t*, which is the last segment of the first word *bayyat* without any vowel or sukūn, and with the *t* which is the initial segment of the second word given a ِسُدَد as an indication of the assimilation. As what regards the common point of articulation of the *t* and the *t* that enables the substitution of the *t* for the *t* leading to the assimilation, they are both alveolars (for the segments see 2.2.1.). As for their characters, the covered *t* is stronger than the soft *t*, which explains why it is the *t* specifically that is assimilated to the *t* and not vice versa.

2.4.2. The sequence of two different segments which are both vowelled: the assimilation:

The vowelled state of the 1st segment preceding another different vowelled one that originates from the same point of articulation as it, or from a close point of articulation to it, or that is akin to it in character, can result in the assimilation. This sequence can be found as well in one word or in two words following each other, the latter pertaining to the rarities.

2.4.2.1. The assimilation that is carried out from the 1st vowelled segment to a 2nd vowelled segment in one word:

The cases that I discuss are the assimilation of the vowelled prefixed *t* of Form V *tafaʾcala* or Form VI *taf(a)āʾcala* to the 1st
vowelled radical following it (cf. par. 2.4.2.1.1.) and of the vowelled infixed $t$ of Form VIII of the imperfect $yafta^{\prime}ilu$ to the 2nd vowelled radical following it (cf. par. 2.4.2.1.2.).

2.4.2.1.1. The assimilation of the vowelled prefixed $t$ of Form V $tafa^{\prime}ala$ or Form VI $taf(a)a^{\prime}ala$ to the 1st vowelled radical following it:

The prefixed $t$ of Form V and VI is assimilated to the 1st radical of the verb (cf. Zamaḥšari, 196, Åkesson, Ibn Mas′ūd 202: fol. 21a, de Sacy, I, 220-221, Wright, II, 64-65, Abd al-Tawwāb, Tatāwwur 29) following it if it is: 1- the $t$ (for the assimilation of two identical segments see par. 2.3.2.1.), 2- the interdental and surd $t$, 3- the alveolar and voiced $d$, 4- the interdental and voiced $d$, 5- the dental, voiced and sibilant $z$, 6- the dental, surd and sibilant $s$, 7- the pre-palatal and surd $s$, 8- the dental, surd and sibilant $s$, 9- the alveolar and voiced $d$, 10- the alveolar and voiced $t$, or 11- the interdental and voiced $z$. The assimilation implies that the prefixed $t$ loses its vowel and that the prosthetic hamza vowelled by a kasra, the $\ddot{i}$, is prefixed to the word to avoid beginning it with a vowelless segment.

The phonological procedure that is carried out in the perfect of Form V can be illustrated as follows: $tafa^{\prime}ala$ with the vowelled $t$ prefix preceding the vowelled 1st radical $f$ becomes $ffa^{\prime}ala$ after that the $t$'s fatḥa is elided and the $t$ is assimilated to the 1st radical $f$ vowelled by a fatḥa. As it is prohibited to begin the word with a vowelless 1st radical $f$, the $\ddot{i}$ is prefixed so that it becomes $\ddot{iff}a^{\prime}ala$.

The same procedure is carried as what concerns Form VI $taf(a)a^{\prime}ala$ that becomes $\ddot{iff}(a)a^{\prime}ala$. 
It can be remarked that the prosthetic alif is not needed in the imperfect of Form V ʰɪffə⁹⁹ala that becomes ɣaffa⁹⁹alu and Form VI ʰɪff(a)ā⁹⁹ala that becomes ɣaff(a)ā⁹⁹alu.

1- The assimilation of the vowelled prefixed t of Form V tafa⁹⁹ala or Form VI taf(a)ā⁹⁹ala to the 1st vowelled radical t following it:

This assimilation has been taken up within the sub-paragraph discussing the assimilation of two vowelled identical segments (cf. 2.3.2.1.). The example there is Form V tatarrasa "shielded himself" that becomes after the assimilation ʰiṭṭarasa.

2- The assimilation of the vowelled prefixed t of Form V tafa⁹⁹ala or Form VI taf(a)ā⁹⁹ala to the 1st vowelled radical t following it:

An example is Form VI taf(a)āqala "to be borne down heavily" that becomes after the assimilation ʰiṭṭ(a)āqala (cf. Åkesson, Ibn Mas'ūd 202: fol. 21a, Howell, IV, fasc. II, 1829, Lane, I, 344, Penrice, Dictionary 25). The vowelled alveolar and surd t prefix vowelled by a fatha, the ta, is assimilated to the vowelled interdental and surd 1st radical t vowelled by a fatha, the ta, resulting in tāqala and the prosthetic hamza vowelled by a kasra, the ī, is prefixed to prevent beginning the word with a vowelless segment. I can mention that the 2nd person of the masc. pl. ʰiṭṭaqaltum occurs in the sur. 9: 38 (ʰiṭṭaqaltum ʰilā l-ʔarṭī fī sabīli l-lāhi) "In the Cause of God ye cling heavily to the earth".

3- The assimilation of the vowelled prefixed t of Form V tafa⁹⁹ala or Form VI taf(a)ā⁹⁹ala to the 1st vowelled radical d following it:

An example is Form VI tad(a)āraʔa "to repel" that becomes after the assimilation ʰidd(a)āraʔa (cf. Howell, IV, fasc. II,
1829, Lane, I, 865, Penrice, Dictionary 47). The vowelled alveolar and surd \( t \) prefix vowelled by a fatḥa, the \( ta \), is assimilated to the vowelled alveolar and voiced 1st radical \( d \) vowelled by a fatḥa, the \( da \), resulting in \( 'idd(a)āra'\( a \) and the prosthetic hamza vowelled by a kasra, the \( 'i \), is prefixed to prevent beginning the word with a vowelless segment. I can mention that the 2nd person of the masc. pl. \( fa-ddāra'tum \) occurs in the sur. 2: 72 (\( fa-ddāra'tum fīhā \) "And fell into a dispute among yourselves as to the crime:"

4- The assimilation of the vowelled prefixed \( t \) of Form V \( taf(a)\( ā\)ala \) or Form V \( taf(a)\( ā\)ala \) to the 1st vowelled radical \( d \) following it:

An example is Form VI \( tad(a)ākara \) "to be reminded" that becomes after the assimilation \( 'idd(a)ākara \) (cf. Howell, IV, fasc. II, 1829, Lane, I, 968, Penrice, Dictionary 52). The vowelled alveolar and surd \( t \) prefix, the \( ta \), is assimilated to the vowelled interdental and voiced 1st radical \( da \) resulting in \( dā(a)ākara \) and the prosthetic hamza vowelled by a kasra, the \( 'i \), is prefixed to prevent beginning the word with a vowelless segment. I can mention that Form V of the imperfect of the 3rd person of the masc. sing. \( yaddakkaru \) occurs in both the sur. 80: 3-4 (\( wa-mā yudrīka la'\( ā\)llahu yazzakkā 'aw yaddakkaru fatanfa'ahu l-\( ʿ \)dikrā) "But what could tell thee but that perchance he might grow (in spiritual understanding)? Or that he might receive admonition, and he teaching might profit him?", and the sur. 2: 269 (\( wa-mā yaddakkaru 'illā 'ūlū l-\( ʿ \)albābi) "But none will grasp the Message but men of understanding".
5- The assimilation of the vowelled prefixed t of Form V tafa‘ala or Form VI taf(a)ā’ala to the 1st vowelled radical z following it:

An example is Form V tazayyana "to decorate itself" that becomes after the assimilation ʿizzayyana (cf. Howell, IV, fasc. II, 1829, Lane, I, 1279, Wright, II, 64, Penrice, Dictionary 64). The alveolar and soft vowelled t prefix, the ta, is assimilated to the vowelled dental and sibilant 1st radical z, the za, resulting in zzayyana and the prosthetic hamza vowelled by a kasra, the ʾi, is prefixed to prevent beginning the word with a vowless segment. It can be mentioned that the 3rd person of the fem. sing. wa-zzayyananat occurs in the sur. 10: 24 (ḥattā ʾidā ḥaḍati l-ʿardū zuḥrufahā wa-zzayyananat) "Till the earth is clad with its golden ornaments and is decked out (in beauty)".

6- The assimilation of the vowelled prefixed t of Form V tafa‘ala or Form VI taf(a)ā’ala to the 1st vowelled radical s following it:

An example is Form V tasamma‘a "to listen" that becomes after the assimilation ʿissamama‘a originally (cf. Howell, IV, fasc. II, 1829, Lane, I, 1427, 1428, Wright, II, 65, Penrice, Dictionary 72). The vowelled alveolar and soft t prefix, the ta, is assimilated to the vowelled dental and sibilant 1st radical s, the sa, resulting in ssamma‘a and the prosthetic hamza vowelled by a kasra, the ʾi, is prefixed to prevent beginning the word with a vowless segment. It can be mentioned that the imperfect of the 3rd person of the masc. pl. yassamma‘ūna occurs in the sur. 37: 8 (lā yassamma‘ūna ʾilā l-malāʾi l-ʾa‘lā) "(So) they should not strain their ears in the direction of the Exalted Assembly".
7- The assimilation of the vowelled prefixed \( t \) of Form V tafa\(^c\)ala or Form VI taf(\( a \))\(^c\)ala to the 1st vowelled radical \( \dot{s} \) following it:

An example is Form VI tašā\( g \)ara "to be embroiled" that becomes after the assimilation \( 3i\dot{s}\)šā\( g \)ara (cf. Howell, IV, fasc. II, 1829). The vowelled alveolar and surd \( t \) prefix, the \( ta \), is assimilated to the vowelled pre-palatal and surd 1st radical \( \dot{s} \), the \( \dot{s}a \), resulting in sšā\( g \)ara and the prosthetic hamza vowelled by a kasra, the \( \dot{i} \), is prefixed to prevent beginning the word with a vowelled segment.

8- The assimilation of the vowelled prefixed \( t \) of Form V tafa\(^c\)ala or Form VI taf(\( a \))\(^c\)ala to the 1st vowelled radical \( \dot{s} \) following it:

An example is Form VI taš(\( a \))\( \breve{\alpha} \)bara "to bear patiently" that becomes after the assimilation \( 3i\dot{s}\)š(\( a \))\( \breve{\alpha} \)bara (cf. Howell, IV, fasc. II, 1829, Lane, II, 1643). The vowelled alveolar and surd \( t \) prefix, the \( ta \), is assimilated to the vowelled dental and covered 1st radical \( \dot{s} \), the \( \dot{s}a \), resulting in sš(\( a \))\( \breve{\alpha} \)bara and the prosthetic hamza vowelled by a kasra, the \( \dot{i} \), is prefixed to prevent beginning the word with a vowelled segment.

9- The assimilation of the vowelled prefixed \( t \) of Form V tafa\(^c\)ala or Form VI taf(\( a \))\(^c\)ala to the 1st vowelled radical \( \breve{\alpha} \) following it:

An example is Form VI taš(\( a \))\( \breve{\alpha} \)bara "to fight" that becomes after the assimilation \( 3i\dot{d}\)š(\( a \))\( \breve{\alpha} \)bara (cf. Howell, IV, fasc. II, 1829). The vowelled alveolar and surd \( t \) prefix, the \( ta \), is assimilated to the alveolar and covered vowelled 1st radical \( \breve{\alpha} \), the \( \breve{\alpha}a \), resulting in \( \breve{\alpha}\)š(\( a \))\( \breve{\alpha} \)bara and the prosthetic hamza vowelled by a
kasra, the ʾi, is prefixed to prevent beginning the word with a vowelless segment.

10- The assimilation of the vowelled prefixed t of Form V tafaʾala or Form VI taf(a)āʿala to the 1st vowelled radical t following it:

An example is Form V taṭahhara "to purify one's-self" that becomes after the assimilation ʾiṭṭahhara (cf. Åkesson, Ibn Masʿūd 202: fol. 21a, Howell, IV, fasc. II, 1829, Lane, II, 1887, Penrice, Dictionary 91). The vowelled alveolar and surd t prefix, the ta, is assimilated to the vowelled alveolar and covered 1st radical t, the ta, resulting in ʾṭṭahhara and the prosthetic hamza vowelled by a kasra, the ʾi, is prefixed to prevent beginning the word with a vowelless segment.

Another example is Form V taṭayyara "to see an evil omen" that becomes after the assimilation ʾiṭṭayyara originally (cf. Howell, IV, fasc. II, 1829, Wright, II, 65). I can mention that the 1st person of the pl. ʾiṭṭayyarnā occurs in the sur. 27: 47 (qālū ʾṭṭayyarnā bi-ka wa-bi-man maʿaka) "They said: [1] omen do we augur from thee and those that are with thee".

11- The assimilation of the vowelled prefixed t of Form V tafaʾala or Form VI taf(a)āʿala to the 1st vowelled radical ẓ following it:

An example is Form VI taẓ(a)ālama "to wrong" that becomes after the assimilation ʾizz(a)ālama (cf. Howell, IV, fasc. II, 1829). The vowelled alveolar and surd t prefix, the ta, is assimilated to the vowelled interdental and covered 1st radical ẓ, the za, resulting in ʾizz(a)ālama and the prosthetic hamza, the ʾi, is prefixed to prevent beginning the word with a vowelless segment.
2.4.2.1.2. The assimilation of the infixed vowelled t of the imperfect of Form VIII yafta'ılu to the vowelled 2nd radical:

The alveolar and surd infixed t of Form VIII can be assimilated to one of the nine segments following it (cf. Åkesson, *Ibn Mas'ūd* 200: fol. 20b, Wright, II, 64-65) that are:

1- the t (for the assimilation of two identical segments see par. 2.3.2.1.), 2- the alveolar and voiced d, 3- the interdental and voiced d, 4- the dental, voiced and sibilant z, 5- the dental, surd and sibilant s, 6- the dental, surd and sibilant s, 7- the alveolar and voiced r, 8- the alveolar and voiced f, and 9- the interdental and voiced z. The assimilation is carried out in the imperfect of such verbs and rarely in their perfect, except in some anomalous cases as the case of ẓiḥtaṣama resulting in ḥaṣṣama (cf. Penrice, *Dictionary* 42).

The phonological procedure that is carried out in the imperfect is the following: yafta'ılu with the vowelled t infix following the vowelless 1st radical f becomes yafatılu after that the t’s fatha is shifted to the 1st radical f. As the t preceding the vowelled 2nd radical c is vowelless, it is assimilated to the c, so that it becomes yafta'ılu.

1- The assimilation of the vowelled infixed t of Form VIII of the imperfect yafta'ılu to the 2nd vowelled radical t following it in the imperfect:

This assimilation has been taken up within the sub-paragraph discussing the assimilation of two vowelled identical segments (cf. 2.3.2.1.). The example is Form VIII yaqtatılu "to contend among themselves" that becomes after the assimilation yaqatti̇lu.

2- The assimilation of the vowelled infixed t of Form VIII of the imperfect yafta'ılu to the 2nd vowelled radical d following it:

An example is yabtadılu "to change" which becomes after the assimilation yabaddılu (cf. Åkesson, *Ibn Mas'ūd* 200: fol.
The fatḥa of the ta in yaḥtadīlū is shifted to the 1st radical b resulting in yaḥbatdīlū and the alveolar and surd t is assimilated to the alveolar and voiced d, because of their common point of articulation and because of the stronger character of the voiced segment in relation to the surd segment (for the segments see 2.2.) resulting in yaḥbadīlū.

Another example of Form VIII verb with 2nd radical d in the imperfect is yaḥtaḍīlī that becomes after the assimilation yaḥiddī "he finds guidance" with the h vowelled by a kasra instead of a fatḥa. It occurs in the sur. 10: 35 (ʾaman lā yaḥiddī) "Or he who finds not guidance (himself)". Abū ʿAmr and Nāfī read it with both vowelless segments, the h and the d, combined, namely yaḥddī, which is disapproved by the majority, and Abū Bakr read it with both the y and the h being vowelled by a kasra, namely yiḥiddī (cf. Howell, IV, fasc. II, 1807-1808).

3- The assimilation of the vowelled infixed t of Form VIII of the imperfect yaḥtaḍīlū to the vowelled 2nd radical d following it:

An example is yaʿṣṭaḍīlū "to excuse one's-self" which becomes after the assimilation yaʿṣaddīlū (cf. Åkesson, Ibn Masʿūd 200: fol. 20b). The fatḥa of the ta in yaʿṣṭaḍīlū is shifted to the 1st radical ʾ resulting in yaʿṣatḍīlū and the alveolar and surd t is assimilated to the interdental and voiced d resulting in yaʿṣaddīlū.

4- The assimilation of the vowelled infixed t of Form VIII of the imperfect yaḥtaḍīlū to the vowelled 2nd radical z following it:

An example is yantazīlū "to snatch, tear away" which becomes after the assimilation yanazīlū (cf. ibid). The fatḥa of the ta in yantazīlū is shifted to the 1st radical n resulting in
yanatziz'u and the surd t is assimilated to the dental, voiced and sibilant z resulting in yanazzi'iz'u.

5- The assimilation of the vowelled infixed t of Form VIII of the imperfect yafta'ilu to the vowelled 2nd radical s following it:

An example is yabtasimu "to smile" which becomes after the assimilation yabassimu (cf. ibid). The fatha of the ta in yabtasimu is shifted to the 1st radical b resulting in yahatsimiu and the surd t is assimilated to the dental, surd and sibilant s resulting in yabassimu.

6- The assimilation of the vowelled infixed t of Form VIII of the imperfect yafta'ilu to the vowelled 2nd radical s following it:

An example is yahtasimu "to argue" which becomes after the assimilation yahasimiu (cf. ibid). The fatha of the ta in yahtasimu is shifted to the 1st radical h resulting in yahatshimu and the surd and soft t is assimilated to the surd, covered, sibilant s resulting in yahasimiu. The variant yahissimu occurs as well with the h given a kasra instad of a fatha (cf. de Sacy, I, 223). The 3rd person of the masc. pl. yahissimuna occurs in the sur. 36: 49 (wa-hum yahissimuna) "While they are yet disputing among themselves!". Seven different readings are known to have been transmitted concerning the verb in this sur. (cf. Ibn Manzur, II, 1177 in the note), namely: 1- yahsimuna. 2-yahtasimuna. 3- yahissimuna. 4- yihissimuna. 5- yahasimuna. 6- yahasimuna. 7- yahasimuna read with a vowel of support (for discussions see Fleisch, Traité I, 144).

7- The assimilation of the vowelled infixed t of Form VIII of the imperfect yafta'ilu to the vowelled 2nd radical d following it:

An example is yanta'dilu "to struggle" which becomes after the assimilation yanda'dilu (cf. Åkesson, Ibn Mas'ud 200: fol.
20b). The fatha of the ta in yantaḏilu is shifted to the 1st radical n resulting in yanaḏilu and the surd and soft t is assimilated to the alveolar, voiced and covered ẓ resulting in yanaḏilu.

8- The assimilation of the vowelled infixed t of Form VIII of the imperfect yafτativa'ilu to the vowelled 2nd radical t following it:

An example is yaltaṭimu "to collide, clash" which becomes after the assimilation yalaṭṭimu (cf. ibid). The fatha of the ta in yaltaṭimu is shifted to the 1st radical l resulting in yalaṭṭimu and the surd and soft t is assimilated to the voiced and covered t resulting in yalaṭṭimu.

9- The assimilation of the vowelled infixed t of Form VIII of the imperfect yafτativa'ilu to the ẓ following it:

An example is yantaẓiru "to expect" which becomes after the assimilation yanaẓẓiru (cf. ibid). The fatha of the ta in yantaẓiru is shifted to the 1st radical n resulting in yanaẓẓiru and the alveolar, surd and soft t is assimilated to the interdental, voiced and covered ẓ resulting in yanaẓẓiru.

2.4.2.2. The assimilation that is carried out from the 1st vowelled segment to a 2nd vowelled segment in two words following each other:

The assimilation can be carried out from a 1st vowelled segment which is the last segment of a word to a 2nd vowelled segment that is the initial segment of the word following it (for a general study see Sibawaihi, II, 455 sqq., Zamahšari, 191 sqq., Cantineau, Études 35 sqq., Fleisch, Traité I, 83 sqq., Roman, Étude I, 390-427, Wright, I, 15-16), if both different segments originate from a common point of articulation of from close points of articulation.
An example is the reading of some of the sur. 48: 29 'ahrağa šat'ahu "Which sends forth its blade", which after the assimilation of the vowelled pre-palatal ǧ to the vowelled pre-palatal š is pronounced 'ahraššat'ahu (cf. Zamaḥšari, 193, Åkesson, Ibn Masʿūd 194: fol. 17b).

The sentence is written in Arabic as 'ahrag šsat'ahu (أحرج) with the ǧ, which is the last segment of the first word, deprived of a vowel or of a sukūn, and with the š, which is the initial segment of the second word, given a šadda as an indication of the assimilation of the ǧ to it.

2.5. Conclusion

I have studied the various sequences involving two identical or different segments that necessitate, allow or forbid the assimilation in one word or in two words following each other in this chapter.

The assimilation of the two different segments in one word concerns the assimilation of the vowelless t infix of the perfect verbs that are formed according to Form VIII 'iftacala to the vowelless 1st radical preceding it (cf. par. 2.4.1.1.3.), the assimilation of the vowelled prefixed t of Form V tafacza or Form VI taf(a)ā'ala to the vowelled 1st radical following it (cf. par. 2.4.2.1.1.) and the assimilation of the vowelled infixed t of Form VIII of the imperfect yaftailu to the vowelled 2nd radical following it (cf. par. 2.4.2.1.2.).

It has been observed that the assimilation is carried out in these cases if the two segments originate from a common point of articulation or from two points of articulation that are close to each other.
In the next chapter I shall discuss the hamzated verb and some of its derivatives.
CHAPTER THREE

3. The hamzated verb and some of its derivatives

The hamzated verb, al-mahmūz is the verb with a hamza radical.

The hamzated verb falls into three classes that refer to the position of the hamza in their forms:

1- verbs with hamza as their 1st radical, e.g. ʼaḥāda "to take", ʼakalla "to eat".
2- verbs with hamza as their 2nd radical, e.g. saʿala "to ask", raʿā "to see".
3- verbs with hamza as their 3rd radical, e.g. qaraʿa "to read", ǧāʿa "to come".

In this approach of the phonological treatment I shall concentrate on a few forms in which the two hamzas are combined or in which the hamza is vowelled by a fatha and preceded by a vowelless segment.

3.1. The conjugations of the verb with 1st radical hamza

The verb with 1st radical hamza falls into the following conjugations:

1- faʿala yafʿulu, e.g. ʼaḥāda yaḥudu "to take".
2- faʿala yafʿilu, e.g. ʿadaba yaʿdibu "to invite (to a party or banquet)".
3- faʿala yafʿalu, e.g. ʿahaba yaʿhabu "to prepare".
4- faʿila yafʿalu, e.g. ʿariqa yaʿraqu "to find no sleep".
5- faʿila yafʿulu, e.g. ʿariğa yaʿruğu "to be flagrant".
6- faʿala yafʿulu, e.g. ʿasala yaʿsulu "to sharpen".

3.2. Examples of some derivatives of the verb with 1st radical hamza
An example of a hamzated verb with 1st radical hamza in the perfect is ʿahda "to take". It becomes yaʿḥudu in the imperfect of the indicative active. Its imperative is ḥud, its active participle is ʿahdun, its maṣdar is ʿahdun, its perfect passive is ʿuḥida, its imperfect is yuʿḥadu and its passive participle is maʿḥūdun.

3.2.1. Remarks concerning the phonological procedures in some of its forms:
The verb with 1st radical hamza can present some forms as the imperative and the passive voice (cf. 3.2.1.1.) in which there occurs a sequence of two hamzas of which the 1st is vowelled and the 2nd is vowelless (for general discussions concerning this sequence see par. 4.1.2.4., 4.1.2.5., 4.1.2.6.).

In the case of the imperative the 1st hamza is the disjunctive hamza of Form I and the 2nd hamza is the 1st radical, e.g. ʾiʿsir "capture", and in the case of the passive voice the 1st hamza is the connective hamza of Form IV and the 2nd hamza is the 1st radical of the verb, e.g. ʿuṭira "he, or it was preferred /((passive)". In both these cases the 2nd vowelless hamza is changed into a glide of the nature of the vowel preceding it (cf. 3.2.1.1.).
3.2.1.1. The imperative and the passive voice: the sequence of two hamzas of which the 1st is vowelled and the 2nd is vowelless: the change of the vowelless hamza into a glide:

The forms of verbs with 1st radical hamza that present a combination of two hamzas of which the 1st is vowelled and the 2nd vowelless are the imperative in \( \text{Jifcil} \) of verbs of the conjugation \( \text{fa'ala yaf'iliu} \) and in \( \text{Ju'ul} \) of verbs of the conjugation \( \text{fa'ala yaf'ulu} \) and the passive voice of Form IV \( \text{Ju'ila} \).

I- The imperative:

The formation of the imperative in \( \text{Jifcil} \) of verbs with 1st radical hamza of the conjugation \( \text{fa'ala yaf'iliu} \) implies the combination of two hamzas: the vowelled connective hamza of the imperative, the \( \text{i} \), followed by the vowelless 1st radical hamza of the verb. As the 1st radical hamza of the verb is vowelless, it is subjected to the influence of the connective hamza’s vowel, - which is the kasra -, preceding it, and can therefore be changed into a glide of the nature of this vowel, which is the \( y \). An example is \( \text{i'sir} \) that becomes \( \text{iysir} \) "capture! /2 masc. sing. (imperative)" then \( \text{(i)isir} \) (cf. Åkesson, \textit{Ibn Mas'ūd} 242: fol. 22b and par. 4.1.2.5.).

The formation of the imperative in \( \text{Ju'ul} \) of verbs with 1st radical hamza of the conjugation \( \text{fa'ala yaf'ulu} \) results mostly in the elision of both hamzas (cf. par. 4.1.2.6.). Examples are \( \text{hud} \) "take!", \( \text{kul} \) "eat!" and \( \text{mur} \) "order!" (cf. Ibn Ğinnī, \textit{de Flexione} 33, Åkesson, \textit{Ibn Mas'ūd} 242: fol. 23a, Howell, II-III, 89-90, IV, fasc. I, 957-958, Wright, II, 76, Vernier, I, 103). The elision of the hamza is obligatory in \( \text{hud} \) which is not to be said \( \text{'u'huḍ} \) with the combination of both hamzas, or \( \text{'uw'huḍ} \) with the change of the 2nd hamza into a \( w \) resulting in \( \text{'u(ū)huḍ} \), and in \( \text{kul} \) which is not to be said \( \text{'u'kul} \), \( \text{'ukul} \) or \( \text{(u)'ukul} \). The eli-
sion however is not necessary in mur which is allowed, as well as in 'uwmur in which the 1st hamza is maintained and the 1st radical hamza is changed into a w resulting in (u)ūmur. Also 'amur with the vowelling of the hamza with a fatha occurs as in the sur. 20: 132 (wa-'amur 'ahlaka bi-l-ṣālwaṭi) "Enjoin prayer on thy people" and in the sur. 7: 199 (wa-'amur bi-l-'urfī ḥudī l-ʿafwa) "Hold to forgiveness; Command what is right".

2-The passive voice:

The formation of the passive voice in Form IV 'uf'ila of verbs with 1st radical hamza implies the combination of the connective hamza, the 'u, and the 1st radical hamza of the verb. The 1st radical hamza, which is vowelless, is subjected to the influence of the ẓamma of the disjunctive hamza preceding it, and is changed into a glide of the nature of this vowel, which is the w.

An example is the passive voice of Form IV 'uṭira "he, or it was preferred / (passive)", of which the 2nd hamza is changed into a w, (cf. Ākesson, Ibn Mas'ūd 242: fol. 22b-23a and par. 4.1.2.6.), namely 'uṭira which then becomes (u)ūṭira.

3.3. The conjugations of the verb with 2nd radical hamza

The verb with 2nd radical hamza falls into the following conjugations:

1- fa'ala yaf'alu, e.g. sa'ala yas'alū "to ask". The fatha is given to its 2nd radical hamza because the hamza is a guttural consonant in the same manner as it is given to the 2nd radical of the strong verb of which the 2nd or 3rd radical is a guttural consonant (cf. par. 3.1.).

2- fa'ilala ya'f'alu, e.g. ya'isa yay'asu "to despair".

3- fa'ula ya'f'ulu, e.g. la'uma yal'umu "to be wicked".
3.4. Examples of some derivatives of the verb with 2nd radical hamza

An example of a hamzated verb with 2nd radical hamza in the perfect is sa'ala "to ask". It becomes yas'alu in the imperfect of the indicative active. Its imperative is 'is'al, its active participle is sā'ilun, its maṣdar is su'alun, its perfect passive is su'ilal, its imperfect is yus'alu and its passive participle is mas'ālun.

3.4.1. Remarks concerning the phonological procedures in some of its forms:

The verb with 2nd radical hamza can present some forms as the imperfect (cf. 3.4.1.1.) in which there occurs a sequence of two segments of which the 2nd is a hamza vowelled by a fatha and preceded by a vowelless segment (for discussions concerning this sequence see par. 4.1.2.3.1.). The phonological procedure is that the fatha of the hamza is shifted to the vowelless segment preceding it, and the hamza is elided.

3.4.1.1. The imperfect: the sequence of a hamza vowelled by a fatha preceded by a sukūn: the transfer of the fatha to the vowelless segment and the elision of the hamza:

The 2nd radical hamza is elided by some in the imperfect for the sake of alleviation. Some examples are yas'alu "he asks" that becomes anomalously yasalu (cf. de Sacy, I, 236, Wright, II, 77, Vernier, I, 74), and yar(a)ā "he sees" that becomes yar(a)ā (cf. Sibawaihi, II, 170) on account of the frequency of its usage (cf. Åkesson, Ibn Mas'ūd 244: fol. 23a-23b). It can be remarked that in both yas'alu and yar(a)ā, the ʾ is elided and the hamza's fatha is shifted to the vowelless segment preceding it. Concerning yarʿā, it can be mentioned that in poetry, in consideration to the metric exigency, the ʾ can be retained. This is remarked in
tar\textsuperscript{ayāh}u that is used instead of tarayāh\textsuperscript{u} in this verse said by Surāqa b. Mirdās al-Azdī al-Bāriqī cited by Ibn Ġinnī Sirr I, 77, II, 826, Ḥaṣā'iṣ III, 153, de Flexione 34, Mu'addib, Taṣrīf 422, Ibn Ya'īs, Mulūkī 370, Ibn Manṣūr, III, 1538, Ibn ʿUṣfūr, II, 621, Howell, IV, fasc. I, 941, Åkesson, Ibn Mas'ūd 266: (236):

"ʿUrī ʿaynayya mā lam tar'ayāh\textsuperscript{u}
kilānā ʿālimun bi-l-thātī".

"I make my eyes see what they have not seen:
each of us is knowing in falsehoods".

3.5. The conjugations of the hamzated verbs with 3rd radical hamza
The verb with 3rd radical hamza falls into the following conjugations:

1- fa'\textsuperscript{ala} yaf\textsuperscript{ulu}, e.g. sā'a yasū'u "to become evil".
2- fa'\textsuperscript{ala} yaf\textsuperscript{ilu}, e.g. ġā'a yagi'\textsuperscript{u} "to come", and hanā'a yahni'u "to be beneficial".
3- fa'\textsuperscript{ala} yaf\textsuperscript{alu}, e.g. naša'a yanša'u "to emerge", and saba'a yasha'u.
4- fa'il\textsuperscript{a} yaf\textsuperscript{alu}, e.g. ṣadi'a yasda'u "to become rusty".
5- fa'\textsuperscript{ula} yaf\textsuperscript{ulu}, e.g. ġaru'a yağru'u "to dare, venture" (ibid).

3.6. Examples of some derivatives of the hamzated verb with 3rd radical hamza
An example of a hamzated verb with 3rd radical hamza in the perfect is qara'a "to read". It becomes yaqra\textsuperscript{u} in the imperfect of the indicative active. Its imperative is ʾiqr\textsuperscript{a}, its active participle is qāri\textsuperscript{un}, its maṣdar is qirā'\textsuperscript{atun}, its perfect passive is qurī'a, its imperfect is yuqra\textsuperscript{u} and its passive participle is maqrū\textsuperscript{un}. 
3.6.1. Remarks concerning the phonological procedures in some of its forms:

The verb with 3rd radical hamza is treated as the strong verb. The only peculiarity that can be remarked is that the hamza can be dropped in the pronunciation if it is vowelless and not followed by a suffix (cf. Bakkūš, Taṣrif 118, ʿAbd al-Raḥīm, Šarf 26-27). Hence lam yaqaṭa? "he did not read" can be pronounced lam yaqaṭa.

3.7. The occurrence of the hamza in some of the other classes of irregular verbs

The hamza can occur as a radical in other classes of verbs than the "purely" hamzated (cf. Åkesson, Ibn Masʿūd 248: fol. 24b-25a). I mention the following cases:

1- as a 1st radical in the doubled verb, e.g. ʿanna yaʾinnu "to groan, moan".

2- as a 2nd radical in verbs with weak 1st radical, e.g. waʿada "to bury alive (a newborn girl)", and as a 3rd radical in a verb with weak 1st radical, e.g. waḡaʾa "to beat".

3- as a 1st or 3rd radical in verbs with weak 2nd radical, e.g. ʾāna "to come, to approach" and ǧāʾa "to come" respectively.

4- as a 1st or 2nd radical in verbs with weak 3rd radical, e.g. ʾabā [with final alif maqṣūra] "to refuse" and raʾā [with final alif maqṣūra] "to see" respectively.

5- as a 2nd radical in verbs with weak 1st and 3rd radical, e.g. waʾā [with final alif maqṣūra] "to promise".

6- as a 1st radical in verbs with 2nd and 3rd weak radical, e.g. ʾawā [with final alif maqṣūra] "to seek refuge".
3.8. Conclusion
I have studied the hamzated verb, some of its derivatives and some other classes of irregular verbs in which the hamza occurs. I have as well touched upon the phonological procedures due to the hamza in some forms. It has been observed that the sequence of two hamzas of which the 1st is vowelled and the 2nd vowelless in the imperative of the verb with 1st radical hamza, e.g. 
\[ \text{\textit{\'i}'sir}} \] "capture! 12 masc. sing. (imperative)" and in Form IV of the passive voice, e.g. 
\[ \text{\textit{\textsc{u}'tira}} \] "he, or it was preferred \(/(passive)\)\", leads to the change of the hamza into a glide, namely 
\[ \text{\textit{\textsc{i}'ysir}} \] with a \textit{y} and \[ \text{\textit{\textsc{u}'tir}} \] with an \textit{\'u} respectively (cf. 3.2.1.1.:1, 2), and that a hamza vowelled by a fatha and preceded by a sukun in the imperfect of the verb with 2nd radical hamza, e.g. 
\[ \text{\textit{yas'alu}} \] "he asks" leads to the transfer of the fatha to the vowelless consonant and the elision of the hamza, namely 
\[ \text{\textit{yasalu}} \] (cf. 3.4.1.1.).

I shall now study the phonological changes due to the hamza in the next chapter.
4. The phonological changes due to the hamza

Having discussed the class of the hamzated verb I shall study the retaining of the hamza or the phonological changes affecting it in this section.

4.1. The hamza. Its retaining or alleviation

The hamza, which is characterized as the glottal stop, can either be pronounced fully, and is thus transcribed as خ, or can be alleviated (cf. Rabin, 130-131). The reason of its alleviation is that it is a hard heavy consonant uttered from the farthest part of the throat.

My intention in this chapter is to study some specific rules that determine the representation of the hamza whether it is maintained and the changes that are carried out in the word whether it is alleviated. These rules, as it shall be remarked, depend to a great extent on the hamza’s position in a word, on whether it is the inial (cf. 4.1.1.), the middle (cf. 4.1.2.) or the last segment (cf. 4.1.3.). I shall study the different cases in the following paragraphs.
4.1.1. The hamza as the initial segment of a word

The hamza that occurs as the initial segment of a word is written over the alif when it is vowelled by a fatha, e.g. ًabun "father" (أب) or by a damma, e.g. ُummun "mother" (أم), and under the alif when it vowelled by a kasra, e.g. ُismun "name" (اسم).

The alleviation of the hamza is regular when it concerns the connective hamza following a vowel in the word preceding it, as it becomes a wašla (for discussions see Wright, I, 19-20). An example is the hamza vowelled by a fatha, ًa, of the definite article ًal that becomes -l after the alleviation with the wašla, e.g. bintu l-râ‘î (بنتُ الراعي) said instead of bintu ًal-râ‘î (بنتُ الراعي) "the shepherd's daughter".

The alleviation of the hamza can be considered as anomalous in other cases. Some anomalous examples are ُunâsun that becomes after the elision of the hamza nâsun "people" (cf. Ibn Ğinnî, Ḥašâ‘iṣ III, 151, Ibn Manẓûr, I, 147, Howell, I, fasc. I, 174, Fleisch, Traité I, 151) and al-‘ilâhu that becomes after the elision of the hamza al-lâhu (cf. Åkesson, Ibn Mas‘ûd 242-243: fol. 23a, Ibn Manẓûr, I, 114).

4.1.2. The hamza preceded by another segment in the middle of the word

The hamza can be found in other positions than as the initial segment of a word in a sequence in which it is preceded by another segment. This segment can be a consonant which is another consonant than the hamza, another hamza or a glide, and it can be vowelled or vowelless. Furthermore as it shall be remarked in some cases, the sequence can occur in one word or in two words following each other. For a better understanding of the retaining of the hamza or the change affecting it, I shall pro-
pose for its study the following sequences by separating two categories from each other: one in which the segment preceding the hamza is a consonant or a glide, and the other one in which it is a hamza. Thus I shall discuss the following sequences beginning with the first category and ending up with the second:

4.1.2.1. The hamza is vowelless and the segment preceding it is vowelled: its retaining or the alleviation by the change of the hamza into a glide.

4.1.2.2. The hamza and the segment preceding it are vowelled.

4.1.2.2.1. The hamza is vowelled by one of the three vowels and is preceded by a fatha: its alleviation by its change into a hamza bayna bayna "an intermediary hamza".

4.1.2.2.2. The hamza is vowelled by a fatha and is preceded by a damma or kasra: its alleviation by its change into a glide.

4.1.2.3. The hamza is vowelled and the segment preceding it is vowelless.

4.1.2.3.1. The hamza is vowelled by a fatha and is preceded by a sukun: its elision together with the hamza's fatha shifted to the vowelless segment preceding it.

4.1.2.3.2. The hamza is vowelled by a fatha and is preceded by a sukun [i.e. a vowelless infixed glide of prolongation]: its assimilation to the glide.

4.1.2.3.3. The hamza is vowelled by a kasra and is preceded by a sukun [i.e. a vowelless infixed glide of prolongation]: its assimilation to the glide.

4.1.2.3.4. The hamza is vowelled by a kasra or damma and is preceded by a sukun [i.e. a vowelless infixed glide of prolongation]: its change into a hamza bayna bayna.

With regards to the fact that the segment preceding the hamza can be another hamza, I present the following sequences:
4.1.2.4. The hamza is vowelless and the hamza preceding it is vowelled by a fatḥa: its alleviation by its change into an ā.

4.1.2.5. The hamza is vowelless and the hamza preceding it is vowelled by a kasra: its alleviation by its change into a y.

4.1.2.6. The hamza is vowelless and the hamza preceding it is vowelled by a ḍamma: its change into a ṭ or its elision.

4.1.2.7. The hamza and the hamza preceding it are vowelled by a fatḥa.

4.1.2.7.1. The hamza and the hamza preceding it are vowelled by a fatḥa in one word: their assimilation into a madda and the anomalous insertion of an ā in some cases.

4.1.2.7.2. The hamza is vowelled by a fatḥa in one word and follows a hamza vowelled by a fatḥa in the word preceding it: the elision of one hamza or of both.

It shall be remarked in this study that the alleviation of the hamza is carried out by changing it either into a glide or a hamza bayna bayna "an intermediary hamza" or by eliding it.

4.1.2.1. The hamza is vowelless and the segment preceding it is vowelled: its retaining or the alleviation by the change of the hamza into a glide:

The hamza can be found in a sequence in which it occurs vowelless and the segment preceding it can be vowelled by a fatḥa, a ḍamma or a kasra. In all these three cases the hamza can be maintained or alleviated. In the latter case, it is changed into a glide of the same nature of the vowel of the segment preceding it (cf. Åkesson, Ibn Masʿūd 240: fol. 21b, Roman, Étude I, 330).

It is remarked that when the hamza is maintained, it is the vowel of the segment preceding it that determines its shape. If the hamza is preceded by a ḍamma it is changed into a ṭ with a hamza over it, e.g. luʿmun "blame" (لُوم) written with a hamza
over the w instead of lu'mun written with the hamza over the alif
and when it is preceded by the kasra it is changed into a hamza
‘alā kursī l-yā’, e.g. bi'rūn "well, spring" written with the
hamza ‘alā kursī l-yā’ (بَنِين) instead of bi'rūn written with the
hamza under the alif (cf. Wright, II, 72).

In other cases when the hamza is alleviated, it is noted that
the vowel of the segment preceding it determines the nature of
the glide that the hamza is changed into. If this vowel is a fathā
the hamza is changed into an ā (cf. 4.1.2.1.: 1., 4.1.2.4.), if it is a
damma it is changed into an ū (cf. 4.1.2.1.: 2., 4.1.2.6.) and if it
is a kasra it is changed into an ī (cf. 4.1.2.1.: 3., 4.1.2.5.).

1- The alleviation by the change of the vowelless hamza, the
˚, into an ā:

If the segment preceding the hamza is vowelled by a fathā the
hamza is changed into an ā (cf. par. 10.1.12.3.). Thus:

-˚a → -(a)ā

An example is ra˚sun with the vowelless ˚ preceded by a
fathā that becomes r(a)āsun "a head" after the change of the ˚
into ā.

2- The alleviation by the change of the vowelless hamza, the
˚, into an ū:

If the segment preceding the hamza is vowelled by a damma
the hamza is changed into an ū (cf. par. 10.1.9.3.). Thus:

-˚u → -(u)ū

An example is lu˚mun with the vowelless ˚ preceded by a
damma that becomes l(u)ūmun "blame" after the change of the ˚
into ū.
3- The alleviation by the change of the vowelless hamza, the \( \hat{o} \), into an \( \hat{i} \):

If the segment preceding the hamza is vowelled by a kasra the hamza is changed into an \( \hat{i} \). Thus:

\[ -\hat{i} \rightarrow -(i)\hat{i} \]

An example is bi\( \hat{r} \)un with the vowelless \( \hat{o} \) preceded by a kasra that becomes \( b(i)i:run \) "well, spring" after the change of the \( \hat{o} \) into \( \hat{i} \).

4.1.2.2. The hamza and the segment preceding it are vowelled:

The vowelled state of both the hamza and the segment preceding it give rise to the following eventualities:

4.1.2.2.1. The hamza is vowelled by one of the three vowels and is preceded by a fath\( \hat{a} \): its retaining or its alleviation by its change into a hamza bayna bayna "an intermediary hamza".

4.1.2.2.2. The hamza is vowelled by a fath\( \hat{a} \) and is preceded by a damma or kasra: its alleviation by its change into a glide.

4.1.2.2.1. The hamza is vowelled by one of the three vowels and is preceded by a fath\( \hat{a} \): its retaining or its alleviation by its change into a hamza bayna bayna "an intermediary hamza":

The hamza that is vowelled by one of the three vowels and preceded by a fath\( \hat{a} \) can be changed into a hamza bayna bayna "intermediary hamza" (for discussions concerning it see Sibawaihi, II, 168-169, Åkesson, Ibn Mas\( \breve{c} \)\( \ddot{u} \)d 240: 21b, Roman, 324-326, Lane, I, 288).

When the hamza that is vowelled by a damma or a kasra is maintained, it is represented by its being written over - in the case of the \( \hat{u} \), or under, - in the case of the \( \hat{i} \), the particular glide that its vowel is connected to (for discussions see de Sacy, I, 95,
Wright, II, 75). If the hamza is vowelled by a đamma that is underlyingly written over an alif, the 'u, it is changed into a hamza over the w. An example is la'uma "to be wicked" (لُوَم) written with the hamza over the w instead of the base form la'uma (لاَم) written with a hamza over the alif vowelled by a đamma. If the hamza is vowelled by a kasra that is underlyingly written under the alif, the 'i, it is changed into a hamza 'alâ kursî l-yâ'. An example is sa'ima "to be weary" (سَمَ) written with the hamza 'alâ kursî l-yâ' instead of the base form sa'ima (سَم) written with a hamza under the alif.

A closer look at the alleviated hamza will make one remark that it is a sort of mixture between the hamza itself and the glide to which its vowel is connected to. If the hamza's vowel is a fathâ, then the glide that it is connected to is the â, e.g. s(a)âla from sa'ala "to ask" (cf. 4.1.2.2.1.: 1), if it is a đamma then the glide that it is connected to is a w, e.g. lawuma from la'uma "he was base" (cf. 4.1.2.2.1.: 2), and if it is a kasra then the glide that it is connected to is a y, e.g. sayima from sa'ima "he was weary" (cf. 4.1.2.2.1.: 3).

Concerning the alleviated hamza Ibn Ğinnî, Sirr I, 48 writes:

"As what concerns the alleviated hamza it is the one that is termed hamza bayna bayna. The meaning with Sibawaihi's saying of bayna bayna is that it is intermediary between the hamza and the segment to which its vowel is connected to. If it is vowelled by the fathâ it is then between the hamza and the alif, if it is vowelled by the kasra it is then between the hamza and the y, and if it is vowelled by the damma it is then between the hamza and the w... As what concerns the one vowelled by the fathâ it is in your saying about sa'ala "he asked": sâla, as what concerns the one vowelled by the kasra it is in your saying about sa'ima "he was weary": sayima, and as what concerns the one vowelled by the damma it is in your saying concerning la'uma "he was base": lawuma".
1- The alleviation by the change of the hamza vowelled by a fatha, the 3a, into an a:

If the hamza is vowelled by a fatha and is preceded by one it can be changed into an a. Thus:

\[-a^3a \rightarrow -(a)a\]

An example is sa3'ala "to ask" with the hamza vowelled by a fatha, the 3a, preceded by a fatha, that becomes s(a)ala.

An example concerning the hamza alleviated for the sake of metric exigency, is the verb with 3rd radical hamza hana'aki that is said han(a)aki (cf. Åkesson, Ibn Mas'ūd 240: fol. 22a) in a verse composed by Farazdaq, which is cited by Sibawaihi, II, 175, Ibn Ğinnī, Haṣā'īs III, 152, Sirr II, 666, Ibn al-Sarrāġ, Uṣūl III, 469, Mu3'addib, Taṣrīf 530, Zamaḥšari, 166, Ibn Ya3'iš, IX, 113, Mulūkī 229, Ibn ʿUṣfūr, I, 405, Howell, IV, fasc. I, 951, Åkesson, Ibn Mas'ūd 255: (220). It runs as follows:

"Rāḥat bi-Maslamata l-bīgālu ʿaṣiyyata
fa-r3'a Fazāratu lā hanāki l-marta'ū"
"The mules have gone away with Maslama at evening. Then graze your camels, Fazara. May the pasture not be pleasant to you!".

2- The alleviation by the change of the hamza vowelled by a damma, the 3u, into wu:

If the hamza is vowelled by a damma and is preceded by a fatha, it can be changed into a w. Thus:

\[-a^3u \rightarrow -awu\]

An example is la3'uma "to be base" with the hamza vowelled by a damma: 3u, and preceded by a fatha, that becomes lawuma with the change of the 3u into wu.
3- The alleviation by the change of the hamza vowelled by a kasra the 'i, into yi:

If the hamza is vowelled by a kasra and is preceded by a fatḥa, it can be changed into a y vowelled by a kasra.

-\textit{-a'i} \rightarrow -\textit{ayi}

An example is \textit{sa'ima} "he was weary" with the hamza vowelled by a kasra: 'i, preceded by a fatḥa that becomes \textit{sayima} with the change of the 'i into yi.

\textbf{4.1.2.2.2. The hamza is vowelled by a fathā and is preceded by a dāamma or kasra: its alleviation by its change into a glide:}

If the hamza is vowelled by a fathā and is preceded by a dāamma or a kasra, it is changed into a glide of the same nature of the vowel of the segment preceding it (cf. Åkesson, Ibn Masʿūd 240: fol. 21b). If the vowel preceding it is a dāamma, then the hamza is changed into an w (cf. 4.1.2.2.2.: 1) and if it is a kasra it is changed into a y (cf. 4.1.2.2.2.: 2).

1- The change of the hamza preceded by a dāamma into w:

If the segment preceding the hamza is a dāamma, the hamza can be changed into a w. Thus:

-\textit{-u'a} \rightarrow -\textit{uwa}

An example is \textit{gu'anun} "receptable for bottles or the like" with the hamza vowelled by a fathā preceded by a dāamma that becomes \textit{guwanun} with the change of the ' into a w (cf. Zamaḥšarî, 174, Ibn Ğinnî, \textit{Sirr II, 573}, Åkesson, \textit{Ibn Masʿūd} 240: 21b).

2- The change of the hamza preceded by a kasra into y:

If the segment preceding the hamza is a kasra, the hamza can be changed into a y. Thus:
\[-i^{\circ}a \quad \Rightarrow \quad -iya\]

An example is *miyarun* "exciting dissension among the people" with the hamza vowelled by a fathā preceded by a kasra that becomes *miyarun* with the change of the \( {\imath} \) into a \( y \) (cf. Sibawaihi, II, 169, Zamaḥšarī, 166, Åkesson, *Ibn Masʿūd* 240: fol. 21b).

It can be observed that the hamza that is vowelled by a fathā and preceded by a đamma or kasra, is changed in the same manner as the hamza that is vowelless and preceded by a vowel (for it see par. 4.1.2.1.), i.e. into a glide of the nature of the specific vowel preceding it.

4.1.2.3. The hamza is vowelled and the segment preceding it is vowelless:

The vowelled state of the hamza and the vowelless state of the segment preceding it give rise to the following eventualities:

4.1.2.3.1. The hamza is vowelled by a fathā and is preceded by a sukūn: its elision together with the hamza’s fathā shifted to the vowelless segment preceding it.

4.1.2.3.2. The hamza is vowelled by a fathā and is preceded by a sukūn [i.e. a vowelless infixed glide of prolongation]: its assimilation to the glide.

4.1.2.3.3. The hamza is vowelled by a kasra and is preceded by a sukūn [i.e. a vowelless infixed glide of prolongation]: its assimilation to the glide.

4.1.2.3.4. The hamza is vowelled by a kasra or đamma and is preceded by a sukūn [i.e. a vowelless infixed glide of prolongation]: its change into a *hamza bayna bayna*. 
4.1.2.3.1. The hamza is vowelled by a fatha and is preceded by a sukun: its elision together with the hamza’s fatha shifted to the vowelless segment preceding it:

If the hamza is vowelled by a fatha and is preceded by a vowelless segment, it can be elided and its fatha is shifted to the segment preceding it (cf. Åkesson, *Ibn Mas‘ūd* 240-242: fols. 22a-22b and for this sequence see par. 3.4.1.1.).

The vowelless segment preceding the hamza can be:
1- a strong segment.
2- an original w or y.
3- an augmentative w or y attached to the pattern.

4.1.2.3.1.1. The vowelless segment preceding the hamza is a strong segment:

The strong vowelless segment preceding the hamza vowelled by a fatha can be the l- of the definite article, al-, or a radical. The change procedure is that the hamza’s fatha is shifted to the vowelless strong segment and the hamza is elided.

An example in which the segment preceding the hamza is the vowelless l- of the definite article is al-‘ahmaru "red" with the l- of the definite article, al-, vowelless preceding the hamza vowelled by a fatha. This sequence leads to the elision of the hamza and the transfer of its fatha to the l preceding it, namely ‘alaha‘maru. Another variant exists as well, namely la‘hmaru with the hamza of the article elided (cf. Sibawaihi, II, 170, Zamâhšarî, 166-167, Åkesson, *Ibn Mas‘ūd* 240: fol. 22a, Howell, IV, fasc. I, 942-943, 959-963, Lane, I, 74, Wright, II, 269).

Some examples in which the segment preceding the hamza is a radical is the imperfect with the 2nd radical hamza yas‘alu "he asks" that becomes anomalously yasalu (cf. par. 3.4.1.1.) and its maṣdar mas‘alatu'n "a matter" that becomes masalatun (cf.
Zamahšarī, 166, Åkesson, Ibn Masʿūd 240: fol. 22a). In both these examples the 1st radical is vowelless and precedes the hamza vowelled by a fatḥa. As it has been observed, this sequence results in the elision of the hamza and the transfer of its fatḥa to the s preceding it.

Another example is malʿakun "angel" (from ʿalaka "to convey") with the 2nd radical l vowelless, preceding the hamza vowelled by a fatḥa. This sequence results in the elision of the hamza and the transfer of its fatḥa to the l preceding it, namely malakun (cf. Ibn Ġinnī, Munṣif II, 102-104, Ibn Manẓūr, I, 110-111, Åkesson, Ibn Masʿūd 240: fol. 22a, Wright, II, 77, Vernier, I, 101-102, Lane, I, 81-82).

4.1.2.3.1.2. The vowelless segment preceding the hamza is a vowelless w or y:

The vowelless w or y preceding the hamza vowelled by a fatḥa can be an infixed segment or a radical. This sequence results in the elision of the hamza and the transfer of its fatḥa to the segment preceding it. It can be remarked that this sequence can occur in one word or in two words following each other.

4.1.2.3.1.2.1. The elision of the hamza in one word and the transfer of its fatḥa to the segment preceding it:

The vowelless segment preceding the hamza vowelled by a fatḥa in the same word can be an infixed glide, namely a w or a y. The conditions of the hamza’s elision and consequently of the transfer of its fatḥa to the segment preceding it, is that the infixed segment is not a segment of prolongation, i.e. a glide lengthening the sound of the vowel preceding it, as the w in mafʿuwlatun (/ mafʿ(u)ūlätun) that lengthens the ḍamma preceding it (for discussions see 4.1.2.3.2.: 1), or the y in faʿiylätun (/ faʿ(ī)īlätun)
that lengthens the kasra preceding it (for discussions see 4.1.2.3.2. :2) and that the infixed segment is not specific for the diminutive, as the y in 'ufay'ilun, because in these cases the hamza is assimilated to the glide preceding it (for discussions see 4.1.2.3.3.).

1- The segment preceding the hamza is a vowelless w:

If the segment preceding the hamza is a vowelless w the procedure is the following:

\[-w^\alpha a \rightarrow -wa\]

An example is ġaw'abatun "Ġaw'aba [name of a water]", which is from the root ġ b (cf. Howell, IV, fasc. I, 938), in which the infixed w is there to make it identical to the pattern faw' alatun. As it is noticed, the w infix is vowelless and precedes the hamza vowelled by a fatḥa. This sequence results in the elision of the hamza and the transfer of its fatḥa to the w preceding it, namely ġawabatun (cf. Åkesson, Ibn Mas'ūd 240: fol. 22a).

2- The segment preceding the hamza is a vowelless y:

If the segment preceding the hamza is a vowelless y the procedure is the following:

\[-y^\alpha a \rightarrow -ya\]

An example is ġay'alun "female hyena", which is from the root ġ l (cf. Ibn Manṣūr, I, 529, Lane, I, 370), in which the infixed y is to make it identical to the pattern fay'alun. As it is remarked, the y infix is vowelless and precedes the hamza vowelled by a fatḥa. This sequence results in the elision of the hamza and the transfer of its fatḥa to the y preceding it, namely ġayalun (cf. Åkesson, Ibn Mas'ūd 240: fol. 22a).
4.1.2.3.1.2.2. The elision of the hamza vowelled by a fatha in one word following a vowelless w, y or a strong segment in the word preceding it and the transfer of its fatha to this segment:

The elision of the hamza that is vowelled by a fatha is as well carried out if the vowelless w, y or the strong segment preceding it, is not in the same word as the hamza. In this case the vowelled hamza, which is the initial segment of the second word, is elided, and its vowel, the fatha, is shifted to the vowelless segment preceding it which is the ultimate segment of the word preceding it (for a study see Sibawaihi, II, 171-172, Zamahšari, 166, Åkesson, Ibn Mas'ūd 240-242: fol. 22a, Howell, IV, fasc. I, 938 sqq., Vernier, I, 104).

1- The segment preceding the hamza in the word preceding it is a vowelless w:

If the vowelless weak ultimate segment in the word preceding the hamza vowelled by a fatha is a w, the procedure is the following:

\[-w + َa \rightarrow -wa\]

An example is ُ'Abuw ُAyyūba "the father of Job", with the w vowelless in ُ'Abuw (ُ'Ab(u)ū), marking its nominative’s ending as it is the 1st element of the construct state, which precedes the hamza vowelled by a fatha that is the initial segment of the second word. This sequence results in the elision of the hamza from ُAyyūba and the transfer of its fatha to the w preceding it, namely ُ'Abuwa yyūba (cf. Åkesson, Ibn Mas'ūd 240-242: fol. 22a, Howell, IV, fasc. I, 940).

Some other examples with the alleviation of the hamza, just to mention a few, are ُduw ُamrihim "the author of their matter" which becomes ُduwa mrihim (Ibn Ya'ūs, IX, 109) and ُqāduw
'abîka "the judges of your father" which becomes qâḍuwa bîka (cf. Ibn Ya'îš, IX, 110, Howell, IV, fasc. I, 940).

2- The segment preceding the hamza in the word preceding it is a vowelless y:

If the vowelless weak ultimate segment in the word preceding the hamza vowelled by a fatha is a y, the procedure is the following:

\[-y + \mathring{a} \rightarrow -ya\]

An example is 'abtagiy 'amrahu "I seek for his matter" with the y vowelless occurring as the 3rd radical of the first word 'abtagiy, - which is the imperfect of 1st person of the sing. of bagiya -, preceding the hamza vowelled by a fatha that is the first initial segment of the second word, 'amrahu. This sequence results in the elision of the hamza from 'amrahu and the transfer of its fatha to the y preceding it, namely 'abtagiya mrahu (cf. Åkesson, Ibn Mas'ūd 240-242: fol. 22a, Howell, IV, fasc. I, 940).

3- The segment preceding the hamza in the word preceding it is a vowelless strong segment:

If the vowelless ultimate segment in the word preceding the hamza vowelled by a fatha is a strong segment, the procedure is the following [C stands for consonant]:

\[-C + \mathring{a} \rightarrow -Ca\]

An example is man 'abûka with the strong segment, the n, vowelless occurring as the ultimate segment of the first word, namely the interrogative particle man, preceding the hamza vowelled by a fatha that is the first initial segment of the second word, 'abûka. This sequence results in the elision of the hamza from 'abûka and the transfer of its fatha to the n preceding it,
namely *mana būka* "who is your father?" (cf. Ibn Ya'īš, IX, 110, Howell, IV, fasc. I, 940, Roman, Étude I, 332).

Another example is *qad ʿaflaḥa* of the sur. 23: 1 (*qad ʿaflaḥa l-muʿminūna*) "The Believers must (eventually) win through", in which the strong segment, the *d*, of the first word, namely the particle *qad*, is vowelless and precedes the hamza vowelled by a fāṭha that is the initial segment of the second word, namely the verb in the Form IV *ʿaflaḥa*. This sequence results in the alleviation of the hamza from *ʿaflaḥa* in the reading of some, by methods of eliding it and shifting its vowel to the segment preceding it, namely *qada ʿflaḥa l-muʿminūna* (cf. Ibn Ya'īš, IX, 110).

Other examples, just to mention a few, are *law ʿanna* that becomes *lawa nna* "if" and *qad ʿaṣbaḥa* that becomes *qada ʿṣbaḥa* "he has become" (cf. Nöldeke, Grammatik 5).

4.1.2.3.2. The hamza is vowelled by a fāṭha and is preceded by a sukūn [i.e. a vowelless infixed glide of prolongation]: its assimilation to the glide:

The vowelless segment preceding the hamza vowelled by a fāṭha can be an infixed glide of prolongation. This sequence results in the alleviation of the hamza by its change into the same segment as the segment preceding it, namely a glide, and then the assimilation of the glides. It is worth to have in mind that if the infixed segment is not an infixed glide of prolongation, and the hamza’s vowel is a fāṭha, the hamza is elided and its fāṭha is shifted to the segment preceding it (for discussions see par. 4.1.2.3.1.).

Some examples considering two vowelless segments of prolongation in some patterns are the *w* in *maʃ(w)latun* (/ *maʃ(u)ūlatun*) lengthening the ḍammā preceding it and the *y* in
faʾ(ɨ)ylatun (/ faʾ(ɨ)i-latun) lengthening the kasra preceding it. I shall discuss the cases below.

1- The segment preceding the hamza is an infixed vowelless \( w \):

If the infixed segment is a vowelless \( w \) as the \( w \) in mafʾ(ɨ)wlatun (/ mafʾ(ɨ)i-latun) lengthening the ā戛ma preceding it, the procedure leading to the assimilation is the following:

\[-uw':Ja \quad \rightarrow \quad -uwwa\]

An example is maqrwʾatun (> maqr(ɨ)i-watun) "a writing read" which is formed according to the pattern mafʾuwlatun with the infixed prolonged \( w \) lengthening the sound of the ā戛ma preceding it. The hamza vowelled by a fatha is alleviated by its change into the same segment as the segment preceding it, which is a \( w \), and then an assimilation of the wāw̄s is carried out resulting in maqrwwwatun (for discussions see Sibawaihi, II, 171, 175, Åkesson, Ibn Masʿūd 242: fols. 22a-22b, Howell, IV, fasc. I, 936-937, de Sacy, I, 370, Vernier, I, 102, 350).

2- The segment preceding the hamza is an infixed vowelless \( y \):

If the infixed segment is a vowelless \( y \) as the \( y \) in faʾiylatun (/ faʾ(ɨ)i-latun) lengthening the kasra preceding it, the procedure leading to the assimilation is the following:

\[-iy':Ja \quad \rightarrow \quad -iyya\]

An example is ḥaṭiyʾatun (> ḥaṭ(ɨ)i-yatun) "an error, sin", which is formed according to the pattern faʾiylatun with the infixed \( y \) lengthening the sound of the kasra preceding it. The hamza vowelled by a fatha is alleviated by its change into the same segment as the segment preceding it, namely a \( y \), and then an assimilation of the yāʾs is carried out resulting in ḥaṭ(ɨ)iyyatun
The hamza is vowelled by a kasra and is preceded by a sukūn [i.e. a vowelless infixed glide of prolongation]: its assimilation to the glide:

A pattern in which the hamza vowelled by a kasra is preceded by an infixed vowelless y is 'ufay'ilun, in which the y is specific for the diminutive. The procedure leading to the assimilation is the following:

-ay'i  →  -ayyi

An example is 'ufay'isun "a kind of little hoe, a little axe", which is formed according to the pattern 'ufay'ilun with the vowelless infixed y specific for the diminutive. The hamza vowelled by a kasra is alleviated by its change into the same segment as the segment preceding it, namely a y, and then an assimilation of the yā's is carried out resulting in 'ufayyisun (for discussions see Sībawaihi, II, 171, 175, Åkesson, Ibn Mas'ūd 242: fol. 22a-22b, Howell, IV, fasc. I, 936-937, de Sacy, I, 370, Vernier, I, 102, 350).

4.1.2.3.4. The hamza is vowelled by a kasra or damma and is preceded by a sukūn [i.e. a vowelless infixed glide of prolongation]: its change into a hamza bayna bayna:

As examples of two patterns in which the hamza vowelled by a kasra is preceded by an infixed vowelless ā of prolongation, I can take up the active participle f(a)ā'īlun and the broken pl. of the nouns maf(a)ā'īlun in which the alif lengthens the sound of the fathā preceding it. This sequence results in the alleviation of the hamza by its change into a hamza bayna bayna
(for discussions see Sibawaihi, II, 171, Roman, Étude I, 333). The procedure leading to the assimilation is the following:

\[-(a)\ddot{a}i \rightarrow -(a)\ddot{a}yi\]

Some examples that are formed according to the active participle \(f(a)\ddot{a}i\)ilun are \(s(a)\ddot{a}i\)ilun "a questioner" with the 2nd radical hamza vowelled by a kasra, from sa'ala "to ask", which results after the change of the hamza into a hamza bayna bayna in \(s(a)\ddot{a}yilun\), and \(q(a)\ddot{a}i\)ilun "a teller" from qawila "to tell", which results after the change in \(q(a)\ddot{a}yilun\) (cf. Åkesson, Ibn Mascīd 242: fol. 22b).

An example that is formed according to the broken pl. of the nouns \(m\ddot{a}f(a)\ddot{a}i\)ilun is \(m\ddot{a}s(a)\ddot{a}i\)ilun "questions" (cf. Sibawaihi, II, 171, Roman, Étude I, 333) which results in \(m\ddot{a}s(a)\ddot{a}yilun\).

If the hamza is vowelled by a damma an preceded by an \(\ddot{a}\) of prolongation, the procedure leading to the assimilation is the following:

\[-\ddot{a}u \rightarrow -\ddot{a}wu\]

An example in which the hamza vowelled by a damma is preceded by an \(\ddot{a}\) of prolongation is \(\ddot{g}az\ddot{a}(a)\ddot{a}un\) "a recompense" that is formed according to the pattern \(f\ddot{a}(a)\ddot{a}lun\) in which the alif lengthens the sound of the fatha preceding it. It occurs in the sentence presented by Sibawaihi, II, 171 \(\ddot{g}az\ddot{a}u \ddot{z}ummihi\) "his mother's recompense" (جَزا أُمَهَ) This hamza is changed into a hamza bayna bayna resulting in \(\ddot{g}az\ddot{a}wu\ mmihi\) (جَزا أُمَهَ) (cf. ibid, Roman, Étude I, 333).

4.1.2.4. The hamza is vowelless and the hamza preceding it is vowelled by a fatha: Its alleviation by its change into an \(\ddot{a}\):

The hamza that is vowelless and preceded by a hamza vowelled by a fatha at the initial of the word is changed into an \(\ddot{a}\), and hence the hamza is assimilated to the \(\ddot{a}\) resulting in a madda.
The procedure is the following:
\[-\varepsilon a^2 \rightarrow -\varepsilon(a)\ddot{a}\]

Some examples that can be mentioned are those formed according to the pattern \(\varepsilon af^\varepsilon alu\), e.g. \(\varepsilon a^3\hat{h}adu\) "the one who holds mostly against" that becomes \(\varepsilon(a)\hat{h}adu\) and \(\varepsilon a^3 damu\) "tawny, dark-complexioned" that becomes \(\varepsilon(a)\hat{d}amu\) with the madda as their initial segment (cf. Sībawaihi, II, 174, Ibn Ğinnī, Sirr II, 579, 665, Ākesson, Ibn Masʿūd 242: fol. 22b).

4.1.2.4.1. An anomalous example: \(\varepsilon ayimmata\)

An anomalous example in which both hamzas are maintained is the base form of the plural of \(\varepsilon imām\), namely \(\varepsilon a^2 mimatun\) in which this combination of the hamzas takes place at the initial of the word. The 2nd hamza is changed into \(y\) for the purpose of alleviation and the kasra of the \(m\) is shifted to it, namely \(\varepsilon ayimmata\) (cf. Zamaḥšarī, 167, Ibn Manẓūr, I, 133, Howell, IV, fasc. I 971 sqq., Lane, I, 91, Vernier, I, 101), because the combination of two hamzas at the initial of the word is deemed as heavy. The Kufans however maintain both the hamzas anomalously as they recite the sur. 9: 12 as \((fa-qātilū \ varepsilon a^2 immata l-kufri)\) "Fight ye the chiefs of Unfaith", with \(\varepsilon a^2 immata\) read instead of \(\varepsilon ayimmata\) (cf. Ibn Ḥālawaihi, Qirāʾat I, 235, Ākesson, Ibn Masʿūd 242: fol. 22b). This reading is disliked by Ibn Ğinnī (cf. Ibn Ğinnī, Ḥaṣāʾīṣ III, 143, Sirr I, 81).

It can be remarked that the combination of both hamzas at the interior of the word is more permitted. An example is \(\hat{h}aṭāʾi ʾi\) "my sins" used instead of \(\hat{h}aṭāyāya\) in the sentence \(\varepsilon allahumma ḡfīr lī \ hatāʾi ʾi\) "O God forgive me my sins", which according to Zamaḥšarī, 167, Abū Zaid has heard from Abū ʾl-Samḥ and his cousin Raddād.
4.1.2.5. The hamza is vowelless and the hamza preceding it is vowelled by a kasra: its alleviation by its change into a y:

The hamza that is vowelless and preceded by a hamza vowelled by a kasra is changed into a y.

The procedure is the following:

\[-\overset{3}{i}] \rightarrow \overset{3}{(i)y}\]

An example in which such a combination occurs is the imperative of the 2nd person of the masc. sing. of a verb with 1st hamza radical 'asara "to capture", namely 'i'sir "capture!" with the 2nd vowelless hamza preceded by a kasra which becomes \(\overset{3}{(i)ysir}\) with the \(\overset{3}{i}\) changed into a y, and as the vowelless y in it is preceded by a kasra, it becomes \(\overset{3}{(i)isir}\) with the y assimilated to the kasra resulting in the lengthened \(\overset{3}{i}\) (cf. par. 3.2.1.1.: 1).

4.1.2.6. The hamza is vowelless and the hamza preceding it is vowelled by a qamma: its change into a w or its elision:

The hamza that is vowelless and preceded by a hamza vowelled by a qamma is in most cases changed into a w.

The procedure is the following:

\[-\overset{3}{u}] \rightarrow \overset{3}{(u)w}\]

An example in which such a combination is carried out at the initial of the word is the passive voice of Form IV of 'atara "to report" in the 3rd person of the masc. sing. formed according to \(f(u)\tilde{u}\)ila, namely \(\overset{3}{u}\)tira "it was reported" with the 2nd vowelless hamza preceded by a qamma. It becomes \(\overset{3}{(u)w}\)tira with the hamza changed into a w, then as the vowelless w in it is preceded by a qamma, it becomes \(\overset{3}{(u)\tilde{u}}\)tira "he, or it was preferred / (passive)" with the w assimilated to the qamma resulting in the lengthened \(\overset{3}{\tilde{u}}\) (cf. par. 3.2.1.1.: 2).

However it can be observed that in some cases of 1st radical hamzated verbs of the conjugation fa'ala yaf'ulu occurring in
the imperative according to ḫufūl, e.g. ḫuḍ "take!" and ḫkul "eat!" with the 2nd vowelless hamza preceded by the hamza of the imperative vowelled by a ḏamma, both hamzas are elided resulting respectively in ḫuḍ and kul (cf. par. 3.2.1.1.).

The procedure is then the following:

\[-\text{ḫuḍ} \rightarrow \text{u} \]

4.1.2.7. The hamza and the hamza preceding it are vowelled by a faṭḥa:

Two hamzas vowelled by a faṭḥa combined together can occur in one word or in two words following each other.

The sequences that can be taken up are the following:

4.1.2.7.1. The hamza and the hamza preceding it are vowelled by a faṭḥa in one word: their assimilation into a madda and the anomalous insertion of an ā in some cases.

4.1.2.7.2. The hamza is vowelled by a faṭḥa in one word and follows a hamza vowelled by a faṭḥa in the word preceding it: the elision of one hamza or of both.

4.1.2.7.1. The hamza and the hamza preceding it are vowelled by a fatha in one word: their assimilation into a madda and the anomalous insertion of an ā in some cases:

The possible assimilation of two hamzas vowelled by a faṭḥa following each other at the beginning of the word concern some examples in which the interrogative particle, ʕa, is prefixed in a word which has the conjunctive hamza vowelled by faṭḥa of the definite ʕal- attached to it, e.g. ʕa-ʕal-Ḥasanu ʕindaka "Is al-Ḥasan by you?" which becomes ʕ(a)āl-Ḥasanu ʕindaka (cf. Howell, IV, fasc. I, 1003).

Hence the procedure is the following:

\[-\text{ʕa} \rightarrow \text{(a)ā} \]
The anomalous insertion of the ā in words in which the initial segment is the conjunctive hamza ʾa, to which the interrogative particle, ʾa, is prefixed to, can be remarked, e.g. ʾa-ʾanti "Are you /fem. sing.?" which becomes ʾ(ā)ā-ʾanti (cf. Sibawaihi, II, 173, Åkesson, Ibn Masʿūd 242: fol. 23a).

Hence the procedure is the following:

\[ ʾa-ʾa \rightarrow ʾ(ā)ā-ʾa \]

As an example, the anomalous ʾ(ā)ā-ʾanti that occurs in this part of a verse said by Dū l-Rumma, cited by Sibawaihi, II, 173, Ibn Ğinnī, Sirr II, 723, Muṣaddīb, Taṣrīf 32, Zamaḥšarī, 14, 167, Ibn Yaʿīš, IX, 118-120, Howell, I, fasc. I, 119, IV, fasc. I, 982, Åkesson, Ibn Masʿūd 262: (233) can be mentioned:

"Fa-yā ẓabyata l-waʿsāʾi bayna Ǧulāḡīlīn
wa-bayna l-naqā ʾāʾanti ʾam ʾummū Sālimīn"
"Then, O gazelle of the soft sandy ground between Ǧulāḡīl and the sand-hill, is this really you or Umm Sālim?".

4.1.2.7.2. The hamza is vowelled by a fatha in one word and follows a hamza vowelled by a fatha in the word preceding it: the elision of one hamza or of both:

Such a sequence occurs when the hamza vowelled by a fatha is the initial segment of a word and is preceded by a hamza vowelled by a fatha in the word preceding it (cf. Sībawaihi, II, 172, Zamaḥšarī, 167, Åkesson, Ibn Masʿūd 242: fol. 23a, Howell, IV, fasc. I, 983-986).

An example is the sur. 47: 18 (fa-qid ǧāʿa ʾaṣrāṭuhā) "But already Have come some tokens", in which ǧāʿа ʾaṣrāṭuhā presents a combination of two hamzas vowelled by a fatha. Al-Ḥalīl and some other Arabs alleviate the 2nd hamza and not the 1st one, and recite it as fa-qid ǧāʿa šrāṭuhā ُقُدَ جَأَ أَشْرَاطُهَا whereas the Ḥiḡāzīs alleviate both the hamzas by eliding the 1st one and changing the 2nd one into a wasla, namely fa-qid ǧā
4.1.3. The hamza as the final segment of a word

The hamza as the final segment of a word can either be vowelled and preceded by a vowel (cf. 4.1.3.1.) or vowelled and preceded by a sukūn (cf. 4.1.3.2.). In the first case, the vowel preceding it determines which is the glide that supports it, and in the 2nd case the hamza is written on the line unsupported, unless it concerns some anomalous cases found in some dialectal variants.

4.1.3.1. The vowelled hamza is preceded by a vowel:

It is not the hamza’s own vowel that is the factor determining whether it is supported by a glide, - namely if it is written over or under the alif or over the ‘u, - because its vowel marks the inflection and varies according to the word’s position in the sentence. However it can be observed that it is the vowel preceding it that is the factor determining which is the glide that supports it (cf. Åkesson, *Ibn Mas‘ūd* 248: fol. 25a).

Examples are *qara‘a* "to read" with the hamza written over the alif (أ) on account of the fathā of the r preceding it, *taru‘a* "to descend, to break in" with the hamza written over the w (و) on account of the ḍammā of the r preceding it, and *fati‘a* "not to cease to be, to refrain" with the hamza written over the kursī l-yā‘ (أ) on account of the kasra of the t preceding it.

4.1.3.2. The vowelled hamza is preceded by a sukūn:

The vowelled segment that is preceded by a sukūn is written as a pure hamza on the line without being supported by any glide (cf. Åkesson, *Ibn Mas‘ūd* 248: fol. 25a-25b).
Some examples are ḥab’un "a hidden thing" (خَبَّة) with the 1st radical given a faṭḥa, rid’un "a buttress" (رَد) with the 1st radical given a kasra and buṭ’un "slowness" (بَط) with the 1st radical given a ẓamma (cf. Howell, IV, fasc. I, 807-812).

4.1.3.2.1. Some anomalous cases that concern the alleviation of the hamza:

The hamza in the examples ḥab’un, rid’un and buṭ’un is treated differently in the dialectal variants (for them see Howell, IV, fasc. I, 807-812). The Ḥīḡāzīs elide it on account of the pause, and say in the definite form al-ḥab, al-rid and al-buṭ. The Banū Tamīm give the 2nd radical a vowel that is similar to the vowel of the 1st radical and then change the hamza into a segment of the nature of the vowel preceding it by placing it over the glide, namely al-ridī’ (الرَّدِي) and al-buṭū’ (البُطُو) in all the three cases of the nominative, accusative or genitive. Some Arabs elide and do not shift the vowel of the hamza, and then change the hamza into an unsound segment homogeneous with its vowel, i.e. al-ridw (الرَّدِو) and al-buṭw (البُطُو). Others shift the vowel of the hamza and change the 3rd radical into a glide, namely al-ridiy (الرَّدِي) and al-buṭuw (البُطُو).

4.2. Conclusion
I have studied the hamza’s position as the initial, middle and the final segment in this chapter. I have discussed its retaining and the phonological changes due to its alleviation with regards to the different sequences in which it occurs. It has been remarked that the sequences in which it is vowelless and preceded by any of the three vowels, i.e. the faṭḥa, e.g. ra’sun, "a head" (cf. 4.1.2.1.: 1), ʾaḥadu "the one who holds mostly against" (cf.
4.1.2.4.), the kasra, e.g. bi’run "a well, spring" (cf. 4.1.2.1.: 3), ʿiṣir "capture!" (cf. 4.1.2.5.), the ḍammā, e.g. lu’mun "blame", (cf. 4.1.2.1.: 2), ʿuṭira "it was reported" (cf. 4.1.2.6.) or vowelled by any of the three vowels and preceded by a fāṭha, e.g. sa’ala "to ask", la’uma "he was base", sa’ima "he was weary" (cf. 4.1.2.2.1.), and vowelled by a fāṭha and followed by a hamza vowelled by a fāṭha in the second word, e.g. ʿa-ʿal-Ḥasanu ʿindaka "Is al-Ḥasan by you?" (cf. 4.1.2.7.) or vowelled by a fāṭha and preceded by a ḍammā, e.g. ʿgu’anun "receptable for bottles or the like" or vowelled by a fāṭha and preceded by a kasra, e.g. mi’arun "exciting dissension among the people" (cf. 4.1.2.2.2.), can result in its alleviation by its change into a glide, i.e. r(a)āsun, ʿ(a)āḥadu, b(i)īrun, ʿ(i)ysir, l(u)ūmun, ʿ(u)wṭira, s(a)āla, lawuma, sayima, ʿ(a)āl-Ḥasanu ʿindaka, ʿguwanun and miyarun. The sequence in which it is vowelled by a fāṭha and is preceded by a sukūn results in its elision and in the transfer of its fāṭha to the vowelless segment preceding it, e.g. mal’akun "angel" that becomes malakun (cf. 4.1.2.3.1.). This rule applies on the condition that this segment is not an infixed w or y, as the hamza in these cases is assimilated to the glide, e.g. maqrūw’atun (> maqr(u)ū’atun) "a writing read" that becomes maqrūwwaṭun, ḥāṭiy’atun (> ḥaṭ(i)u’atun) "an error, sin", that becomes ḥaṭ(i)yyaṭun (cf. 4.1.2.3.2.) and ʿufay’isun "a kind of little hoe, a little axe" that becomes ʿufayyisun (cf. 4.1.2.3.3.).

In the next chapters I shall discuss the weak verbs and some of their derivatives.


CHAPTER FIVE

5. The verb with 1st radical \( w \) or \( y \)

The verb with 1st \( w \) or \( y \) radical is generally termed as \textit{mu'tal al-fā'}. 

Another nomination is \textit{miṭālun} "assimilated, similar", which is given to it because some of its patterns are similar to other patterns of verb classes.

This similarity is noticed in two cases:

1- Its pattern of the perfect that is formed of three radicals is similar to the pattern of the perfect of the strong verb, as its 1st weak radical is retained and sound as is the 1st strong radical of the strong verb. I illustrate this with the following examples:

\textit{a- verb with 1st radical} \( w \)

\begin{align*}
\text{wa'ada} & \text{ "to promise"} & \text{qaraba} & \text{ "to hit"} \\
\text{1st sound} \, w \, \text{radical} & = & \text{1st strong radical} \\
\text{wa} + 'a + da & & \text{q}a + ra + ba \\
\text{1 + 2 + 3 radicals} & = & \text{1 + 2 + 3 radicals}
\end{align*}

\textit{b- verb with 1st radical} \( y \)

\begin{align*}
\text{yasara} & \text{ "to play at hasard"} & \text{qaraba} & \text{ "to hit"} \\
\text{1st sound} \, y \, \text{radical} & = & \text{1st strong radical}
\end{align*}
ya+sa+ra \quad da+ra+ba
\quad 1 + 2 + 3 radicals  \quad 1 + 2 + 3 radicals

2 - Its pattern of the imperative that is formed of two radicals is similar to the pattern of the imperative of the verb with 2nd w or y radical. I illustrate this with the following example:

'\text{id} "promise!" \text{(from } wa\text{\textquotesingle ada}) \quad \text{zin} "decorate" \text{ (from } zayana)

elision of 1st radical w \quad = \quad \text{elision of 2nd radical y}
\text{ci+d} \quad \text{zi+n}
\quad 1 + 2 radicals \quad 1 + 2 radicals

The imperative of the verb with 1st radical w: '\text{id} is underlyingly '\text{iw'id} formed according to the measure 'if'il (from wa\text{\textquotesingle ada}) with the 1st radical w elided and the imperative of the verb with 2nd y radical zin is underlyingly 'izyin formed according to 'if'il (from zayana) with the 2nd y radical elided.

5.1. The conjugations of the verb with 1st radical w

The conjugations of the verb with 1st radical w can conveniently be grouped into the following ones:

1- fa\text{\textquotesingle ala} yaf\text{\textquotesingle ilu}, e.g. wa\text{\textquotesingle ada} yaw\text{\textquotesingle idu} "to promise", of which the imperfect yaw\text{\textquotesingle idu} becomes after the phonological change ya\text{\textquotesingle idu} with the 1st radical w elided.

2- fa\text{\textquotesingle ala} yaf\text{\textquotesingle alu}, e.g. wahaba yawhabu "to give", of which the imperfect yawhabu becomes after the phonological change yahabu with the 1st radical w elided.

3- fa\text{\textquotesingle ila} yaf\text{\textquotesingle alu}, e.g. wa\text{\textquotesingle ila} yaw\text{\textquotesingle galu} "to be afraid", of which the 1st radical w is maintained in the imperfect yaw\text{\textquotesingle galu}. 
4- fa‘ila yaf‘ilu, e.g. wamiqa yawmiqyu "to love", of which the imperfect yawmiqyu becomes after the phonological change yamiqyu with the 1st radical w elided.

5- fa‘ula yaf‘ulu, e.g. wabula yawbulu "to be unwholesome", of which the 1st radical w is maintained in the imperfect yawbulu.

5.1.1. An anomalous case: wağada yağudu

An anomalous case is the verb wağada yağudu "to find, to experience" in which the theme vowel is a ḍamma, and which would seem to be formed according to the conjugation fa‘ala yaf‘ulu. However a deeper level of analysis shows that its theme vowel is a kasra, as the underlying conjugation is wağada yağidu formed according to the conjugation fa‘ala yaf‘ilu. The imperfect yağidu is underlyingly yawgidu of which the 1st radical w is elided and the 2nd radical, the ǧ, is given the kasra, namely yağidu. This procedure occurs by all the Arabs except by the Banū ǧĀmir (cf. Ibn Manẓūr, VI, 4769, Åkesson, Ibn Mas‘ūd 270: fol. 25b) who give the ǧ the ḍamma, namely yağudu. I can mention the example of the imperfect of the 3rd person of the fem. pl. yağudna that occurs in their dialect in this verse said by Ğarîr, cited by Ibn ǦUṣfūr, I, 177, Ibn Ya‘īš, Mulūkī 49, Howell, II-III, 247-248, Åkesson, Ibn Mas‘ūd 274: (243):

"Law šī’tī qad naqa‘a l-fu‘āda bi-šarbatin
tada‘u l-šawādiya lā yağudna ḡalīlan".
"If you had wanted, your saliva would have quenched [the thirst] of the heart with a single draught
leaving the thirsty [ribs of the breast in such a state that] they
would not experience heat of thirst".
5.2. Examples of some derivatives of the verb with 1st radical \( \text{w} \)

An example of a verb with 1st radical \( \text{w} \) in the perfect is \( \text{wa'ada} \) "to promise". It becomes \( \text{ya'ida} \) in the imperfect of the indicative active. Its imperative is \( \text{'idu} \), its active participle is \( \text{wa'idun} \), its \( \text{masdar} \) is \( \text{wa'dun} \) or \( \text{'idatun} \), its perfect passive is \( \text{wu'ida} \), its imperfect is \( \text{yū'adu} \) and its passive participle is \( \text{ma'ūudun} \).

5.2.1. Remarks concerning the phonological procedures in some of its forms:

The main changes are that it can have in some of its forms its 1st radical sound, in others elided and in others changed into another segment.

I shall focus on a few different forms and discuss some various sequences in them with the aim of determining the main rules.

5.2.1.1. The perfect: the sequence in which the 1st radical \( \text{w} \) is the initial segment: the soundness of the glide.

5.2.1.2. The verbal noun: the sequence in which the 1st radical \( \text{w} \) is the initial segment: the elision of the \( \text{w} \) and the compensation with the prefixed \( \text{tā' marbūṭā} \).

5.2.1.3. The imperfect: the sequence in which the 1st radical \( \text{w} \) is vowelless and followed by a kasra in the conjugation \( \text{yaflilu} \): the elision of the \( \text{w} \).

5.2.1.4. The imperfect: the sequence in which the 1st radical \( \text{w} \) is vowelless and followed by a fatha in the conjugation \( \text{yaflalu} \): the retaining or the change of the \( \text{w} \) into a \( \text{y} \) or an \( \text{ā} \), or the elision of the \( \text{w} \).

5.2.1.5. The imperative: the sequence in which the 1st radical \( \text{w} \) is vowelless and preceded by the kasra of the connective
hamza: the \( w \) is changed into a \( y \) and can be retained or is elided together with the hamza vowelled by a kasra.

5.2.1.6. The active participle: the sequence in which the 1st radical \( w \) is vowelled by a fatḥa and followed by the infix vowelless \( ā \): the retaining of the \( w \) or the anomalous transposition of segments.

5.2.1.7. The noun of place and time: the sequence in which the 1st radical \( w \) is vowelless and preceded by a fatḥa: the soundness of the \( w \).

5.2.1.8. Form VIII of the perfect: the sequence in which the 1st vowelless radical \( w \) is preceded by a kasra and followed by the vowelled infixed \( t \): the change of the \( w \) into a \( y \) and the assimilation of the \( y \) to the vowelled infixed \( t \).

5.2.1.1. The perfect: the sequence in which the 1st radical \( w \) is the initial segment: the soundness of the glide:

The 1st weak radical remains sound in the perfect, e.g. \( wā'ada \) "he promised" on the basis that the glide can only be affected by a phonological change if it is preceded by another segment (for discussions see par. 9.1.), which is not the case here as the glide is the initial segment.

This rule implies that no phonological change can affect the initial segment. Hence, this means that the \( w \) in \( wā'ada \) cannot be made vowelless resulting in \( wē'ada \), because of the impossibility of beginning the word with a vowelless segment. It could not either be changed into \( ā \) resulting in \( āē'ada \) as this would imply beginning the word with a vowelless segment which is forbidden, and it could not either be elided as the root would seem to be formed of two radicals, i.e. \( ā'ada \), which is not allowed (cf. Åkesson, *Ibn Mas'ūd* 270: fol. 25b-26a).
5.2.1.2. The verbal noun: the sequence in which the 1st radical w is the initial segment: the elision of the w and the compensation with the prefixed tā' marbūṭa:

It can be stated that the 1st weak radical can be elided in some cases of verbal nouns, e.g. ʿidatun underlyingly wiḍun "a promise" (for some examples see Suyūṭi, Muzhir II, 158-159), in spite of the fact that it is the initial segment of the word. This opposes the rule that the glide should be preceded by another segment if a phonological change is to be carried out (cf. par. 5.2.1.1., 9.1). The breaking of this rule requests however that the tā' marbūṭa is suffixed to it as a compensation for the elision of this initial glide (cf. Sībawayhi, II, 81, Wright, II, 118, Lane, II, 2952).

Not only the tā' marbūṭa can occur as a compensation of a glide in the same word, but also another word, occurring as the 2nd element of an ʿiḍāfa construction, can occur as a compensation for the elision of a tā' marbūṭa. I can mention the case of the tā' marbūṭa that is anomalously elided from the accusative ʿidatā which is said ʿida, when it occurs as the first element of a construct state in this verse said by Abū Umayya al-Faḍl b. al-ʿAbbās b. ʿUtba b. Abī Lahab, that is cited by Ibn ḇinnī, Ḥaṣāʾiṣ III, 171, Muʿaddib, Taṣrīf 285, Suyūṭi, Aṣbāh III, 248, Ibn Manẓūr, VI, 4871, Howell, I, fasc. IV, 1527-1528, IV, fasc. I, 1423-1424, Åkesson, Ibn Masʿūd 277: (248):

"Inna l-ḥāliṭa ʿaḍaddū l-bayna fa-nḏaradū wa-ʿaḥlafika ʿida l-ʿamri l-λaḏī waʿadū".

"Verily the familiar friends have renewed the separation, and made off, and have broken to you the promise of the matter which they promised".

There exist two different theories concerning the elision of the tā' marbūṭa from ʿidatun and its likes. One of them is
Sibawaihi’s theory (cf. Sibawaihi, II, 260-261) who accepts the elision of the \( \text{tā\textsuperscript{a}} \) \( \text{marbūta} \) even when the word to which it is suffixed is not the first element of a construct state, and the other one is al-Farrā’s, who can only accept this elision when the word is the first element of the construct state, as in the case of ‘\( \text{idā} \) \( \text{l-\text{\textsuperscript{2}amrī}} \) of this verse, as he considers the second element of the construct, namely \( \text{l-\text{\textsuperscript{2}amrī}} \), as a compensation for the elided \( \text{tā\textsuperscript{a}} \) \( \text{marbūta} \) (cf. Mu‘addib, Taṣrīf 285, Åkesson, Ibn Mas‘ūd 270-272: fol. 26a; and compare the case of (\( \text{wā-\text{\textsuperscript{2}iqāmu l-\text{ṣalātī}}} \)) in par. 6.5.12 in which \( \text{wā-\text{\textsuperscript{2}iqāmu} \) is said instead of \( \text{wā-\text{\textsuperscript{2}iqāmatu} \)}.

5.2.1.3. **The imperfect: the sequence in which the 1st radical \( \text{w} \) is vowelless and followed by a kasra in the conjugation \( \text{ya\textsuperscript{c}ilu: the elision of the \( \text{w} \):**

In some examples of verbs occurring in the imperfect formed according to \( \text{ya\textsuperscript{c}ilu} \), e.g. \( \text{yaw\textsuperscript{c}idu} \) "he promises", the \( \text{w} \) is elided as it precedes a kasra, which is deemed as a heavy combination resulting in \( \text{ya\textsuperscript{c}idu} \) (cf. Zamaḥšarī, 178, de Sacy, I, 238, Vernier, I, 57).

The Kufans believed that the elision of the \( \text{w} \) is to distinguish the transitive verbs, e.g. \( \text{ya\textsuperscript{c}idu-hu} \) underlingly \( \text{yaw\textsuperscript{c}idu-hu} \) "he promises him/it", \( \text{yazinu-hu} \) underlingly \( \text{yawzīnu-hu} \) "he weights him/it", from the intransitive verbs in which the \( \text{w} \) is retained, e.g. \( \text{yawḥālu} \) "he/it falls into the mud", and \( \text{yawḡalū} \) "he fears". Their theory is however vicious as there exist verbs in the intransitive in which the \( \text{w} \) is elided, e.g. \( \text{yakīfu} \) said with the elision of the \( \text{w} \) instead of \( \text{yawkīfu} \) "it drips with rain-water" (for discussions see Ibn al-Anbārī, Inṣāf Q. 112, 326-327, Howell, IV, fasc. I, 1418).
5.2.1.4. The imperfect: the sequence in which the 1st radical \( w \) is vowelless and followed by a fat\( \hat{a} \)a in the conjugation ya\( f \)alu: the retaining or the change of the \( w \) into a \( y \) or an \( \ddot{a} \), or the elision of the \( w \):

The \( w \) is usually maintained in the imperfect of the conjugation fa\( c \)ila ya\( f \)alu, e.g. wa\( g \)ila yaw\( g \)alu "to be afraid". In some rare cases it is changed into a \( y \), namely wa\( g \)ila yaw\( g \)alu or yay\( g \)alu, wa\( g \)\( i \)a yaw\( g \)a\( u \) or yay\( g \)a\( u \) "to have pain", and in some more rare cases into an \( \ddot{a} \), namely y(a)\( \ddot{a} \)galu and y(a)\( \ddot{a} \)ga\( u \) (cf. Wright, II, 79, Bakkûş, Ta\( \ddot{s} \)rîf 125).

The \( w \) is elided in the imperfect of the conjugation fa\( c \)ala ya\( f \)alu, e.g. wahaba yahabu "to give" underlyingly wahaba yawahabu.

As for the reason why the \( w \) is maintained in the conjugation fa\( c \)ila ya\( f \)alu and elided in fa\( c \)ala ya\( f \)alu, it seems to be to distinguish both these conjugations from each other (cf. Bakkûş, Ta\( \ddot{s} \)rîf 125, `Abd al-Ra\( \ddot{h} \)îm, Šarf 28-29).

5.2.1.5. The imperative: the sequence in which the 1st radical \( w \) is vowelless and preceded by the kasra of the connective hamza: the \( w \) is changed into a \( y \) and can be retained or is elided together with the hamza vowelled by a kasra:

In the case of the imperative that is formed according to \( \ddot{i}f \)\( c \)al, e.g. \( \ddot{i}w \)gal, the \( w \) is vowelless and preceded by the kasra of the connective hamza. The \( w \) is changed into a \( y \), namely \( \ddot{i}y \)gal "be scared!" on account of the influence of the kasra (cf. Wright, II, 80).

In the case of \( \ddot{i}f \)\( c \)il, e.g. \( \ddot{i}w \)\( c \)id "promise /masc sing.", the vowelless \( w \) is at first changed into a \( y \) on account of the kasra preceding it, namely \( \ddot{i}y \)\( c \)id (cf. Wright, II, 78, de Sacy, I, 238).
then both the hamza vowelled by a kasra, namely the 'i, and the y are elided resulting in 'id. This elision of the 1st radical w changed into y seems to be on the analogy of its elision in the imperfect (for it see par. 5.2.1.3.) ta'īdu, as the imperative can be considered to be derived from the imperfect.

5.2.1.6. The active participle: the sequence in which the 1st radical w is vowelled by a fatḥa and followed by the infix vowelless ā: the retaining of the w or the anomalous transposition of segments:

The active participle's form is f(a)ā'īlun, e.g. w(a)ā'idun "promising", in which the w is sound.

In some anomalous cases the qalb "transfer of one segment to the position of another one" is carried out (for an example concerning the active participle of a verb with 2nd w radical, e.g. ẓ(a)āwikut > ẓ(a)ākin see par. 6.5.10.: 2).

An example is w(a)āḥidun "one (in higher ordinals)" resulting in ḥ(a)ādin (cf. Åkesson, Ibn Masʿūd 292: fol. 30b). An analysis of the phonological changes that are carried out in it shows us that the 1st radical w is shifted after the 3rd radical d resulting in āḥidwun. As it is impossible to start the word with a vowelless ā, the 2nd radical ḥ is shifted before it and the kasra of the ḥ is shifted after the vowelless d, so that it became ḥ(a)ādiwun. The w in ḥ(a)ādiwun is changed into a y on account of the kasra preceding it, so it became ḥ(a)ādiyun. As it resembles the active participles of verbs with 3rd weak radical (for them see par. 7.5.12. and compare the case of the active participle of the verb with 2nd radical ẓ(a)ākin par. 6.5.10.: 2), a phonological change was carried out in it so that it became ḥādin. So the pattern of ḥādin is not fāʾilun but ʾalifun (cf. Ibn Manẓūr, VI, 4779).
5.2.1.7. The noun of place and time: the sequence in which the 1st radical \( w \) is vowelless and preceded by a \( f\text{a}\text{h}\text{a} \): the soundness of the \( w \):

The form of the noun of place and time of the verb with 1st radical \( w \) is \( maf^\prime ilun \). The 1st radical \( w \) is retained in it and the 2nd radical is invariably vowelled with a kasra. Examples are \( maw^\prime idun \) "time or place of a promise or appointment" from \( wa^\prime ada ya^\prime idu \) "to promise" of the conjugation \( fa^\prime ala yaf^\prime ilu \) and \( mawg\text{il}^\prime un \) "a place that is dreaded" from \( wa^\prime gila yawg\text{al}^\prime u \) "to be afraid" of the conjugation \( fa^\prime ila yaf^\prime alu \).

5.2.1.8. Form VIII of the perfect: the sequence in which the 1st vowelless radical \( w \) is preceded by a kasra and followed by the vowelled infixed \( t \): the change of the \( w \) into a \( y \) and the assimilation of the \( y \) to the vowelled infixed \( t \):

In the Form VIII of the perfect \( ^\prime ifta^\prime ala \), e.g. \( ^\prime iwta^\prime ada \) "to accept a promise", the \( w \) is changed into a \( y \) on account of the kasra of the connective hamza preceding it, namely \( ^\prime iyta^\prime ada \), and the \( y \) is assimilated to the infixed \( t \), resulting in \( ^\prime itta^\prime ada \) (for this assimilation see par. 2.4.1.1.3.1.: 4).

5.3. The conjugations of the verb with 1st radical \( y \)
The conjugations of the verb with 1st radical \( y \) can conveniently be grouped into the following ones:

1- \( fa^\prime ala yaf^\prime ilu \), e.g. \( yana^\prime a yawni^\prime u \) "to become ripe", of which the imperfect is inflected as the strong verb, namely \( yawni^\prime u \) or \( yawna^\prime u \).

2- \( fa^\prime ala yaf^\prime alu \), e.g. \( yafa^\prime a yawfa^\prime u \) "to be grown up", of which the imperfect is inflected as the strong verb, namely \( yawfa^\prime u \).
3- fa'ila yaf'alu, e.g. yaqiża yayqazu "to be awake", of which the imperfect is inflected as the strong verb, namely yayqazu.

4- fa'ula yaf'ulu, e.g. yaquża yayquzu "to be awake", of which the imperfect is inflected as the strong verb, namely yayquzu.

5.4. Examples of some derivatives of the verb with 1st radical y An example of a verb with 1st radical y in the perfect is yasara "to be easy". It becomes yaysiru in the imperfect of the indicative active. Its imperative is 'iysir > 'īsir, its active participle is yāsirun, its maṣdar is yasrun, its passive is yusira, its imperfect is yūsaru and its passive participle is maysūrun.

5.4.1. Some remarks concerning the phonological procedures in some of its forms:

It is possible to observe that the verb with 1st radical y has in most forms the y retained. However the y is changed into w when it occurs vowelless and preceded by a ẓamīm (for this sequence see par. 9.1.5.; for the substitution see par. 10.1.9.2). The forms that present such a sequence are the imperfect of the passive voice of Form I yuf'alu, the active voice of Form IV of the imperfect yuf'ilu and the active participle of Form IV muf'ilun. I shall consider the following forms in order to be able to determine the main rules concerning the various sequences in them:

5.4.1.1. The imperfect of the passive voice of Form I, the active voice of Form IV of the imperfect and the active participle of Form IV: the y is vowelless and preceded by a ḍamāma: the change of the y into a w.

5.4.1.2. Form VIII of the perfect: the sequence in which the 1st vowelless radical y is preceded by a kasra and followed by
the vowelled infixed \( t \): the assimilation of the \( y \) to the vowelled infixed \( t \).

5.4.1.1. The imperfect of the passive voice of Form I, the active voice of Form IV of the imperfect and the active participle of Form IV: the \( y \) is vowelless and preceded by a \( ا \) damma: the change of the \( y \) into a \( w \):

An example of an imperfect of the passive voice of Form I \( yu\text{f}^\circ alu \), is \( yuysaru \) that becomes \( yuwsaru > y(u)\text{\u0627}saru \) "is pleased".

The same change of the \( y \) into \( w \) is carried out in the active voice of Form IV of the imperfect \( yuysiru \) that becomes \( yuwsiru > y(u)\text{\u0627}siru \) "is well off" (cf. Wright, II, 50, for the sequence see par. 9.1.5.; for the substitution see 10.1.9.2). Thus \( yuysiru \) with the vowelless \( y \) preceded by a \( ا \) damma becomes \( yuwsiru \) with the \( y \) changed into a \( w \). As \( yuwsiru \) has its vowelless \( w \) preceded by a \( ا \) damma, it becomes \( y(u)\text{\u0627}siru \) with the \( w \) changed into an \( \u065b \).

The same applies for the active participle Form IV \( muysirun \) that becomes \( muwsirun > m(u)\text{\u0627}sirun \) "is prosperous" (cf. Åkesson, Ibn Mas'\u00e6d 286: fol. 28a-28b; for the sequence see this study par. 9.1.5.; for the substitution see 10.1.9.2). Thus \( muysirun \) with the vowelless 1st radical \( y \) preceded by a \( ا \) damma becomes \( muwsirun \) with the \( y \) changed into a \( w \). As \( muwsirun \) has its vowelless \( w \) preceded by a \( ا \) damma it becomes \( m(u)\text{\u0627}sirun \) with the \( w \) changed into an \( \u065b \). The reason of the change of the vowelless \( y \) into a \( w \) is the influence of the \( ا \) damma of the segment preceding the \( y \) and the faintness of the nature of the vowelless segment in relation to the vowelled segment (cf. Åkesson, Ibn Mas'\u00e6d 286: fol. 28b).
5.4.1.2. Form VIII of the perfect: the sequence in which the 1st vowelless radical y is preceded by a kasra and followed by the vowelled infixed t: the assimilation of the y to the vowelled infixed t:

In the Form VIII of the perfect ʻifta'ala, e.g. ʻiytasara "to play at hazard", the y is assimilated to the infixed t, resulting in ʻittasara (for this assimilation see par. 2.4.1.1.3.1.: 5).

5.5. Conclusion

I have presented and discussed the verb with 1st w or y radical and some of its derivatives in this chapter. The verb with 1st radical w is generally more submitted to phonological changes than the verb with 1st radical y. The reason is that the w is considered as heavy in some specific combinations involving the kasra. In other combinations, the w is mostly retained as sound, e.g. in the perfect (cf. 5.2.1.1.), e.g. wa'ada "he promised". It can be elided in the verbal noun with the prefixation of the tā' marbūta to compensate for the elision (cf. 5.2.1.2.), e.g. wi'dun > ʻidatun "a promise". It is elided in the imperfect of the conjugation yaf'ilu (cf. 5.2.1.3.), e.g. yaw'idu > ya'idu "he promises", and is either maintained, e.g. wağila yawğalu "to be afraid", changed into a y, e.g. yawğalu > yayğalu, an ā, e.g. yawğalu > y(a)āğalu, or elided, e.g. yahabu > yahabu "to give" in the conjugation yaf'alu (cf. 5.2.1.4.). It is either changed into a y in the imperative, e.g. ʻiwğal > ʻiyğal "be scared!" or is elided together with the connective hamza to prevent a disliked combination, e.g. ʻiw'id > ʻiy'id > ʻid "promise / masc sing." (cf. 5.2.1.5.). It is maintained, e.g. w(a)ā'idun "promising", or anomalously transposed and then elided, e.g. w(a)āhidun > āhidwun > h(a)ādiwun > h(a)ādin in the active participle when it is followed by the vowelless ā (cf. 5.2.1.6.). It is maintained in
the noun of time and place as it is preceded by a fathā, e.g. 
*mawṣidun* "time or place of a promise or appointment" (cf. 5.2.1.7.) and it is changed into a *y* in Form VIII of the perfect as it is preceded by a kasra, e.g. *iyta'da > iytada* "to accept a promise" (cf. 5.2.1.8.).

The verb with 1st radical *y* has in most forms the *y* sound, except in some cases when it occurs vowelless and preceded by a dhamma, as it is changed into a *w* (cf. 5.4.1.1.), e.g. *yuysaru > yuwsaru > y(u)üşaru* "is pleased" and *muysirun > muwsirun > m(u)üşirun* "is prosperous", or in Form VIII of the perfect *ifthala*, in which it occurs vowelless, preceded by the kasra and followed by the vowelled infixed *t*, as it is assimilated to the *t* (cf. 5.4.1.2.), e.g. *iytasara > ittasara* "to play at hazard".

In the next chapter I shall study the verb with 2nd *w* or *y* radical.
CHAPTER SIX

6. The verb with 2nd radical w or y

The verb with 2nd radical w or y, al-mu'tall al-'ayn, is also termed al-'ağwaf "the hollow verb". Another less known nomination is ḍū l-talāqat "the one with three segments" (cf. Åkesson, Ibn Mas'ūd 282: fol. 26b), which is given to it because it loses its 2nd weak radical in the perfect when the vowelled suffixed agent pronoun, namely the -tu "1st person of the sing.", -ta "2nd person of the masc. sing.", -ti "2nd person of the fem. sing.", -tumā "2nd person of the dual", -tum "2nd person of the masc. pl.", -tunna "2nd person of the fem. pl.", or -na "3rd person of the fem pl.", is attached to it. It comprehends three segments instead of four in these perfect forms, which distinguishes it from the other classes of verbs. I illustrate this theory with the following examples:

a- verb with 2nd radical w

An example of a verb with 2nd radical w is qul-tu "I said" underlyingly qawal-tu (for the phonological change see 6.5.2.1.: 1) that loses the w radical, and hence qul-ta "you said /masc.
sing." underlyingly qawal-ta, qul-ti "you said /fem. sing." underlyingly qawal-ti, qul-tumā "you said /dual" underlyingly qawal-tumā, qul-tum "you said /dual." underlyingly qawal-tum, qawal-na "they said /fem. pl." underlyingly qawal-na, etc.

The underlying form that comprehends four segments can be distinguished from the form in which a phonological change due to the unsound glide is carried out, resulting in three segments. Hence I illustrate this as follows:

The underlying form:
\[ qawal-tu = fa'\text{al-tu} \]
\[ qa+wa+l+tu = fa'\text{a}+l+tu \]
\[ 1 + 2 + 3 + 4 \text{ segments} = 1 + 2 + 3 + 4 \text{ segments} \]

The form in which a phonological change is carried out is:
\[ qu+l+tu = fu+l+tu \]
\[ 1 + 2 + 3 \text{ segments} = 1 + 2 + 3 \text{ segments} \]

**b- verb with 2nd radical y**

An example of a verb with 2nd radical y is \( bi^c-tu \) "I sold" underlyingly \( baya^c-tu \) (for the phonological change see par. 6.5.1.2.: 1) that loses the y radical, and hence \( bi^c-ta \) "you said /masc. sing." underlyingly \( baya^c-ta, \) \( bi^c-ti \) "you said /fem. sing." underlyingly \( baya^c-ti, \) \( bi^c-na \) "they said /fem. pl." underlyingly \( baya^c-na, \) etc.

The underlying form is:
\[ baya^c-tu = fa'\text{al-tu} \]
\[ ba+ya+c+tu = fa'\text{a}+l+tu \]
\[ 1 + 2 + 3 + 4 \text{ segments} = 1 + 2 + 3 + 4 \text{ segments} \]

The form in which a phonological change is carried out is:
\[ bi+c+tu = fi+l+tu \]
\[ 1 + 2 + 3 \text{ segments} = 1 + 2 + 3 \text{ segments} \]
6.1. The conjugations of the verb with 2nd radical \( w \)
The conjugations of the verb with 2nd radical \( w \) can be grouped into the following:

1- \( \text{fa}'\text{ala yaf'ulu} \), e.g. \( \text{qawala yaqwulu} \) that becomes after the phonological change \( \text{qâla yaqâlu} \) "to say".

2- \( \text{fa}'\text{ila yaf'alu} \), e.g. \( \text{hawifa yahwafu} \) that becomes after the phonological change \( \text{hâfa yahâfu} \) "to fear".

3- \( \text{fa}'\text{ula yaf'ulu} \), e.g. \( \text{tawula yatwulu} \) that becomes after the phonological change \( \text{tâla yaţâlu} \) "to become long".

6.2. Examples of some derivatives of the verb with 2nd radical \( w \)
An example of a verb with 2nd radical \( w \) in the perfect is \( \text{qâla} \) "to ask". It becomes \( \text{yaqâlu} \) in the imperfect of the indicative active. Its imperative is \( \text{qul} \), its active participle is \( \text{qâ'ilun} \), its maṣdar is \( \text{qawlun} \), its perfect passive is \( \text{qila} \), its imperfect is \( \text{yuqâlu} \) and its passive participle is \( \text{maqûlun} \).

6.3. The conjugations of the verb with 2nd radical \( y \)
The conjugations of the verb with 2nd radical \( y \) can be grouped into the following:

1- \( \text{fa}'\text{ala yaf'ulu} \), e.g. \( \text{bayaca yabyicu} \) that becomes after the phonological change \( \text{bâ'ca yabî'cu} \) "to sell".

2- \( \text{fa}'\text{ila yaf'alu} \), e.g. \( \text{hayiba yahyabu} \) that becomes after the phonological change \( \text{hâba yahâbu} \) "to fear".

6.4. Examples of some derivatives of the verb with 2nd radical \( y \):
An example of a verb with 2nd radical \( y \) in the perfect is \( \text{bâ'ca} \) "to buy". It becomes \( \text{yabî'cu} \) in the imperfect of the indicative active. Its imperative is \( \text{bi} \), its active participle is \( \text{bâ'i'yun} \), its
6.5. Remarks concerning the phonological procedures in some of the forms of the verb with 2nd radical \( w \) or \( y \):

Before embarking upon establishing the rules of the phonological changes due to the glide, it can be remarked that most of the procedures concerning the sequences of the verb with 2nd radical \( w \) concern as well the sequences of the verb with 2nd radical \( y \). It shall be observed in this analysis that three usual changes can be applied concerning the verb with 2nd radical \( w \) or \( y \). In some of its forms, it can have its glide changed into another segment, have it elided or retained. Another change that can affect the glide is as well the transfer of its vowel to the segment preceding it, but this occurs only on the condition that this segment is vowelless or that it has a vowel that is deemed heavy on it. I shall devote my attention to the following forms, sequences and rules:

6.5.1. The 3rd persons of the perfect of the verb with 2nd radical \( w \) or \( y \): the sequence of the vowelled 2nd weak radical preceded by a fatḥa: the change of the vowelled weak radical into an \( ā \).

6.5.2. The persons in the perfect of the verb with 2nd radical \( w \) or \( y \) in which the vowelled pronoun of the agent is suffixed: the sequence of the vowelless 2nd radical \( ā \) (that is substituted for the 2nd weak radical) preceded by a fatḥa and followed by the vowelless 3rd radical: the elision of the \( ā \) and the change of the 1st radical’s fatḥa into another vowel.

6.5.3. The imperfect of the verb with 2nd radical \( w \) or \( y \) of the conjugation \( yaf‘alu \): the sequence of the 2nd weak radical vowelled by a fatḥa and preceded by a sukūn: the transfer of the...
fatḥa to the vowelless segment preceding it and the change of the vowelled weak radical into an ā in all forms with the remark that the ā is elided in the imperfect forms of the fem. pl. in which the vowelled –n, the -na, is suffixed to.

6.5.4. The imperfect of the verb with 2nd radical w of the conjugation yafṣ'ulu: the sequence of the 2nd radical w vowelled by a ẓamāma and preceded by a sukūn: the transfer of the ẓamāma to the vowelless segment preceding it, the change of the wu into an ū with the remark that the -ū is elided in the forms of the fem. pl. in which the vowelled –n, the -na, is suffixed to.

6.5.5. The imperfect of the verb with 2nd radical y of the conjugation yafṣ'īlu: the sequence of the 2nd radical y vowelled by a kasra and preceded by a sukūn: the transfer of the kasra to the vowelless segment preceding it and the change of the yi into an ī in all forms with the remark that the ī is elided in the imperfect forms of the fem. pl. in which the vowelled –n, the -na, is suffixed to.

6.5.6. The passive participle of the verb with 2nd radical w mafṣ(u)wlun/ mafṣ(u)ţulun: the sequence of the 2nd radical w vowelled by a ẓamāma, preceded by a sukūn and followed by the infixed vowelless ū: the transfer of the ẓamāma to the vowelless segment preceding it, the change of the wu into an ū and the elision of one of the wāws.

6.5.7. The passive participle of the verb with 2nd radical y mafṣ(u)wlun/ mafṣ(u)ţulun: the sequence of the 2nd radical y vowelled by a ẓamāma, preceded by a sukūn and followed by the infixed vowelless ū: the transfer of the ẓamāma to the vowelless segment preceding it, the change of the ẓamāma into a kasra, the elision of the infixed ū or the 2nd radical y, and the change of the y into an ī or the ū into an ī respectively.
6.5.8. The imperative of the verb with 2nd radical \( w \) or \( y \): the sequence of the 2nd vowelled radical \( w \) or \( y \) that is preceded by a sukūn: the transfer of the vowel to the vowelless segment preceding it, the lengthening of the vowel into an \( ā \) or an \( ī \) respectively, and the elision of the \( ā \) or \( ī \) in both the 3rd person of the masc. sing. and the 3rd person of the fem. pl. and its retaining in the remaining persons.

6.5.9. The active participle of the verb with 2nd radical \( w \) or \( y \): the sequence of the 2nd radical \( w \) or \( y \) vowelled by a kasra and preceded by a vowelless \( ā \): the change of the \( wī \) or \( yī \) into 'ī respectively.

6.5.10. Anomalous cases of active participles of the verb with 2nd radical \( w \): the sequence of the 2nd radical \( w \) vowelled by a kasra and preceded by a vowelless \( ā \) in them: the elision of the \( w \) or the transposition of segments together with the elision of the glide.

6.5.11. The verbal noun of Form I of the verb with 2nd radical \( w \) or \( y \): the sequence in which the 2nd radical \( w \) or \( y \) is vowelless and preceded by a fatha: the soundness of the \( w \) or \( y \).

6.5.12. The verbal nouns of Form IV 'īf(a)ālun and Form X 'īstif(a)ālun of the verb with 2nd radical \( w \): the sequence in which the \( w \) is vowelled by a fatha and preceded by a sukūn: the transfer of the \( w \)'s fatha to the segment preceding it, the change of the \( w \) into an \( ā \), the elision of one of the alifs and the compensation with the tā' marbūta.

6.5.13. The passive voice of the perfect of the verb with 2nd radical \( w \) or \( y \): the sequence of the 2nd radical \( w \) or \( y \) vowelled by a kasra and preceded by a damma: the transfer of the kasra to the 1st radical and hence the change of the 1st radical's damma into a kasra, the change of the \( w \) into a \( y \) or the \( y \) into an \( ī \) respec-
tively, or the elision of the 2nd radical w’s or y’s kasra and the lengthening of the dāamma preceding it into an ā

6.5.14. The passive voice of the imperfect of the verb with 2nd radical w or y: the sequence of the 2nd radical w or y vow­elled by a fatḥa and preceded by a sukūn: the transfer of the fatḥa to the 1st vowelless radical and the change of the w or the y into an ā

6.5.15. The noun of place of the verb with 2nd radical w: the sequence of the 2nd radical w vowelled by a fatḥa and preceded by a sukūn: the transfer of the fatḥa to the vowelless segment preceding it and the change of the wa into an ā

6.5.1. The 3rd persons of the perfect with 2nd radical w or y: the sequence of the vowelled 2nd weak radical preceded by a fatḥa: the change of the vowelled weak radical into an ā:

I shall discuss at first the verb with 2nd radical w and then the verb with 2nd radical y.

6.5.1.1. The verb with 2nd radical w:
The verb with 2nd radical w is divided in the perfect between the conjugation faʿala in which the 2nd radical is vowelled by a fatḥa and the conjugation faʿula in which it is vowelled by a dāmma. In both these cases the vowelled w is changed into an ā.

1- The conjugation faʿala:
In the conjugation faʿala the 2nd radical w is vowelled by a fatḥa and preceded by one, which results in the change of wa into an ā (cf. Ibn Ġinnī, Munṣif I, 247, Åkesson, Ibn Masʿūd 282-284: fol. 27a-27b; and for discussions see par. 9.1.2.1. and 10.1.12.1.). It is remarked that qawala with the 2nd radical w
vowelled by a fatḥa and preceded by one becomes q(a)āla "to say" with the wa changed into an ā.

The 3rd person of the fem. sing. is q(a)āla-t and the 3rd person of the masc. pl. q(a)āl(u)-ū.

2- The conjugation faʾula:

In the conjugation faʾula the 2nd radical w is vowelled by a damma and is preceded by a fatḥa, which results in the change of the wu into an ā (cf. Ibn Ṣinnī, Munṣif I, 247, Åkesson, Ibn Masʿūd 282-284: fol. 27a-27b, and for this sequence see par. 9.1.4.). It is noted as an example that tawula with the 2nd radical w vowelled by damma and preceded by a fatḥa becomes t(a)āla "to become long" with the wu changed into an ā.

The 3rd person of the fem. sing. is t(a)āla-t and of the 3rd person of the masc. pl. t(a)āl(u)-ū.

3- The conjugation faʾila:

In the conjugation faʾila the 2nd radical w is vowelled by a kasra and is preceded by fatḥa, which results in the change of the wi into an ā (cf. Ibn Ṣinnī, Munṣif I, 247, and for a discussion concerning the sequence of a glide vowelled by a kasra and preceded by a fatḥa see par. 9.1.3.). It is observed as an example that bawifa with the 2nd radical w vowelled by kasra and preceded by a fatḥa becomes b(a)aja "to be afraid" with the wi changed into an ā.

The 3rd person of the fem. sing. is b(a)āfa-t and of the 3rd person of the masc. pl. b(a)āf(u)-ū.

6.5.1.2. The verb with 2nd radical y:

The verb with 2nd radical y is divided in the perfect between the conjugation faʿala in which the 2nd radical is vowelled by a
fathā and the conjugation fa‘ila in which it is vowelled by a kasra. In both these cases the vowelled y is changed into an ā.

1- The conjugation fa‘ala:

The same phonological change that is carried out in the verb with 2nd radical w of the conjugation fa‘ala (cf. par. 6.5.1.1.: 1) is carried out in the verb with 2nd radical y of the same conjugation. In this case, the y, which is vowelled by a fathā and preceded by one, is changed into an ā (cf. Ibn Ğinnī, Munṣif I, 247, Åkesson, Ibn Mas‘ūd 282-284: fol. 27a-27b; and for discussions see par. 9.1.2.1. and 10.1.12.2.). An example is baya‘a with the 2nd radical y vowelled by a fathā and preceded by one, which becomes b(ā)ā‘a "to buy" with the ya changed into an ā.

The 3rd person of the fem. sing. is b(ā)ā‘a-t and of the 3rd person of the masc. pl. b(ā)ā‘(u)-ū.

2- The conjugation fa‘ila:

In the conjugation fa‘ila the 2nd radical y is vowelled by a kasra and preceded by a fathā (for discussions concerning this sequence see par. 9.1.3.), which results in the change of the yi into an ā. An example is hayiba with the 2nd radical y vowelled by a kasra and preceded by a fathā, which becomes h(ā)āba "to be afraid" with the yi changed into an ā.

The 3rd person of the fem. sing. is h(ā)āba-t and of the 3rd person of the masc. pl. h(ā)āb(ū)-ū.

6.5.2. The persons in the perfect of the verb with 2nd radical w or y in which the vowelled pronoun of the agent is suffixed: the sequence of the vowelless 2nd radical ā (that is substituted for the 2nd weak radical) preceded by a fathā and fol-
lowed by the vowelless 3rd radical: the elision of the ā and the change of the 1st radical’s fatha into another vowel:

In the 1st persons of the sing. and pl. and the 2nd persons of the masc. and fem. sing. and pl. of perfect verbs with 2nd radical w or y, the vowelled pronoun of the agent, namely the -tu "1st sing.", the -nā "1st pl.", the -ta "2nd masc. sing.", the -ti "2nd fem. sing.", the -tumā "2nd /dual", the -tum "2nd masc. pl." and the -tunna "2nd fem. pl.", are suffixed to the form. As already mentioned, the 2nd weak radical, whether it is a w or y, is changed into a vowelless ā on account of the influence of the fatha preceding it and of its vowelling (cf. par. 6.5.1.). The vowelless ā becomes in these mentioned persons connected to the vowelless 3rd radical. This combination of two vowelless segments gives rise to the following procedures: the first is the elision of the 2nd changed radical ā and the second is the change of the 1st radical’s vowel, namely the fatha, into another vowel that can in some cases give notice in its nature of the elided 2nd weak radical, whether it is a w or y, or of the underlying vowel of the 2nd radical that marks the conjugation. I shall discuss these cases in the following paragraphs.

6.5.2.1. The verb with 2nd radical w:

The conjugations that I take up are faʿala and faʿila.

1- The conjugation faʿala:

An example is qawala "he said" that belongs to the conjugation faʿala yaftulu and not to the conjugation faʿula yafṭulu (cf. Ibn Ġinnī, Munṣif I, 236-237, Bakkūš, Taṣrīf 142-143, Bohas/Kouloughli, Linguistic 79) to which one of the pronouns of the agent, e.g. the -na of the 3rd person of the fem. pl. is suffixed to. The procedure is the following (cf. Åkesson, Ibn
Mas'ūd 288: fol. 29b, Bakkūš, Taṣrīf 136): qawal-na with the 2nd radical w vowelled by a fatḥa and preceded by one becomes q(a)āl-na with the wa changed into an ā. As there is in q(a)āl-na a cluster of two vowelless segments, the ā and the l, the ā is elided so that it becomes qal-na. It can be observed that what seems peculiar is that the fatḥa of the 1st radical q in qal-na is replaced by a ẓamma to give notice of the elided 2nd radical w, namely qul-na.

The same procedure is carried out when the remaining pronouns of the agent are suffixed, namely qawal-tu "I said" resulting in qul-tu, qawal-nā "we said" resulting in qul-nā, qawal-ta "you said /masc. sing." resulting in qul-ta, qawal-tī "you said /fem. sing." resulting in qul-tī, qawal-tumā "you said /dual" resulting in qul-tumā, qawal-tum "you said /masc. pl." resulting in qul-tum and qawal-tunna "you said /fern. pl." resulting in qul-tunna.

2- The conjugation faʿila:

An example is ħawifa "he was afraid". In the case of the suffixation of the agent pronoun to it, e.g. the -na of the 3rd person of the fem. pl., namely ħawif-na, the following procedure is carried out (cf. Åkesson, Ibn Mas'ūd 288: fol. 29b): ħawif-na with the 2nd radical w vowelled by a kasra and preceded by a fatḥa becomes ḥ(a)āf-na after that its wi is changed into an ā. As there is in ḥ(a)āf-na a cluster of two vowelless segments: the ā and the f, the ā is elided so that it becomes ḥaf-na. Then what is special for it is that the fatḥa of the 1st radical is replaced by a kasra, which is underingly the vowel of the 2nd radical w marking the conjugation faʿila, so that it becomes ḥif-na.

6.5.2.2. The verb with 2nd radical y:

The conjugation that I discuss is faʿala, e.g. bayaʿa "he sold". In the case of the suffixation of the agent pronoun, e.g. the
-na of the 3rd person of the fem. pl., the following procedure is carried out: bayac-nä with the 2nd radical y vowelled by a fatha and preceded by one becomes b(a)c-nä after that its ya is changed into an ä. As there is in b(a)c-nä a cluster of two vowelless segments: the ä and the c, the ä is elided so that it becomes bac-nä. The fatha of the 1st radical is then replaced by a kasra to give notice that the verb is with 2nd radical y, so it becomes bic-nä.

The same concerns the remaining pronouns with the agent suffixes, namely bayac-tu "I bought" resulting in bic-tu, bayac-nä "we bought" resulting in bic-nä, bayac-ta "you bought /masc. sing." resulting in bic-ta, bayac-ti "you bought /fem. sing." resulting in bic-ti, bayac-tumä "you bought /dual" resulting in bic-tumä, bayac-tum "you bought /masc. pl." resulting in bic-tum and bayac-tunna "you bought /fem. pl." resulting in bic-tunna.

Another example with the suffixation of the agent pronoun in the 2nd person of the masc. sing., the -ta, is sayar-ta > s(a)c-r-ta > sar-ta > sir-ta "you moved on" (cf. Bakküş, Taşrif 139).

6.5.3. The imperfect of the verb with 2nd radical w or y of the conjugation yapalu: the sequence of the 2nd weak radical vowelled by a fatha and preceded by a sukün: the transfer of the fatha to the vowelless segment preceding it and the change of the vowelled weak radical into an ä in all forms with the remark that the ä is elided in the imperfect forms of the fem. pl. in which the vowelled -n, the -na, is suffixed to:

I shall discuss at first the verb with 2nd radical w and then the verb with 2nd radical y.

6.5.3.1. The verb with 2nd radical w:

An example of a verb that is formed according to this conjugation is yahwafu "he is afraid". The phonological change in-
volves two steps: the first is the transfer of the \( w \)'s fatḥa to the vowelless 1st radical \( h \) preceding it, which results in \( yah\hat{a}f\hat{u} \), and the second one is the change of the vowelless \( w \) into an \( \ddot{a} \) on account of the influence of the fatḥa preceding it, which results in \( ya\hat{h}(a)\ddot{a}f\hat{u} \). These two steps answer to two different principles: the first is that when the glide is vowelled and follows a sukūn its vowel is shifted to the vowelless segment preceding it (for discussions see par. 9.1.12.) and the second is that when the glide is vowelless and is preceded by a fatḥa it can be changed into an \( \ddot{a} \) (for discussions see par. 9.1.1.).

It can be remarked concerning the 2nd person and 3rd person of the fem. pl. to which the vowelled \( -n, \text{the} -na, \) is suffixed to, namely \( tah\hat{a}(a)\ddot{a}f-na \) "you are afraid /fem. pl." and \( ya\hat{h}(a)\ddot{a}f-na \) "they are afraid /fem. pl.", that the 3rd radical becomes vowelless through the suffixation. This entails a cluster of two vowelless segments, the \( \ddot{a} \) and the \( f \), which is the reason why the \( \ddot{a} \) is elided resulting in \( taha\hat{a}f-na \) and \( ya\hat{h}(a)f-na \).

### 6.5.3.2. The Verb with 2nd Radical \( y \):

An example of a verb that is formed according to this conjugation is \( yahyabu \) "he is afraid". A study of the phonological changes shows the following: \( yahyabu \) with the 2nd radical \( y \) vowelled by a fatḥa preceded by a sukūn becomes \( yahaybu \) after that the \( y \)'s fatḥa is shifted to the 1st radical. In \( yahaybu \) we have the vowelless \( y \) preceded by a fatḥa which forces the change of the \( y \) into an \( \ddot{a} \) so that it becomes \( ya\hat{h}(a)\ddot{a}bu \).

Alike the verb with 2nd radical \( w \) of the same conjugation (cf. par. 6.5.3.: 1.), the \( \ddot{a} \) is elided in the 2nd and 3rd person of the fem. pl. of the verb of this conjugation for the same reason. Hence \( tahab-na \) "you are afraid /fem. pl." is said instead of
tah(a)āb-na and yahab-na "they are afraid /fem. pl." instead of yah(u)āb-na.

6.5.4. The imperfect of the verb with 2nd radical w of the conjugation yaf'ulu: the sequence of the 2nd radical w vowel­elled by a đamma and preceded by a sukūn: the transfer of the đamma to the vowelless segment preceding it, the change of the wu into an ū with the remark that the -ū is elided in the forms of the fem. pl. in which the vowelled -n, the -na, is suf­fìxe to:

In the imperfect that is formed according to yaf'ulu, the 2nd radical w is vowelled by a đamma and preceded by a sukūn, e.g. yaqwulu "he says". The phonological procedure that is carried out implies the transfer of the đamma of the 2nd radical w to the 1st vowelless radical, and the change of the w into an ū on ac­count of the influence of the đamma (cf. Ibn Ğinnī, Munṣīf 1, 247 and this study par. 9.1.15.). An example is yaqwulu that has the 2nd radical w vowelled by a đamma and preceded by a sukūn. It becomes yaqwulu after that the w's đamma is shifted to the vowelless q. As the vowelless w is preceded by a đamma in it, the w is changed into an ū so that it becomes yaq(u)ulu.

It is observed that as with tah(a)āf-na which results in tahaf­na "you are afraid /fem. pl." and yah(a)āf-na which results in yahaf-na "they are afraid /fem. pl." with the elision of the ā (cf. par. 6.5.3.: 1), the ū is elided in the 2nd and 3rd person of the fem. pl. of the verb of this conjugation for the same reason. Hence taqul-na "you say /fem. pl." is said instead of taq(u)ūl-na and yaqul-na "they say /fem. pl." instead of yaq(u)ūl-na. The procedure that is carried out form the underlying form yaqwul­na to the result yaqul-na is the following (cf. Åkesson, Ibn Mas'ūd 290: fol. 30a): yaqwul-na with the 2nd radical w vow-
eled by a đamma and preceded by a sukūn becomes yaquwł-na after that the w's đamma is shifted to the vowelless q. As there is in it a cluster of two vowelless segments, the w and the l, the w is elided so that it becomes yaqul-na.

According to a modern theory, the w in yaquwł-na is said to be shorthened into a đamma, which is the case when the w is followed by a sukūn (cf. Bakkūš, Taṣrīf 136).

6.5.5. The imperfect of the verb with 2nd radical y of the conjugation yaf'îlu: the sequence of the 2nd radical y vowelled by a kasra and preceded by a sukūn: the transfer of the kasra to the vowelless segment preceding it and the change of the yi into an i in all forms with the remark that the i is elided in the imperfect forms of the fem. pl. in which the vowelled –n, the -na, is suffixed is suffixed to:

In the conjugation yaf'îlu, the 2nd radical y is vowelled by a kasra and is preceded by a sukūn. An example is yabyi'c'u "he sells" (cf. Åkesson, Ibn Mas'ūd 286: fol. 29a, Bakkūš, Taṣrīf 62). The phonological change that is carried out in it implies the transfer of the kasra of the 2nd radical y to the 1st vowelless radical resulting in the lengthening of the y. This phonological procedure answers to a principle that when the glide is vowelled and follows a sukūn, its vowel is shifted to the vowelless segment preceding it (cf. par. 9.1.13.). I illustrate it as follows: yabyi'c'u with the 2nd radical y vowelled by a kasra and preceded by a sukūn becomes yabiyy'c'u after that the y's kasra is shifted to the b. As the vowelless y is preceded by a kasra in it, the y is changed into an i so that it becomes yab(i)i'c'u.

The i is elided in the 2nd and 3rd person of the fem. pl. of the verb of this conjugation. Hence tabi'c-na "you sell /fem. pl." is said instead of tab(i)i'c-na and yabi'c-na "they sell /fem. pl." in-
stead of *yab(i)b*-
*na*. Hence *yaby*i-
*na* with the 2nd radical *y*
vowelled by a kasra and preceded by a sukūn becomes *yabiy*-
*na* after that the *y*’s kasra is shifted to the *b*. As there is in it a
cluster of two vowelless segments, the *y* and *c*, the *y* is elided so
that it becomes *yabi*-
*na*.

6.5.6. The passive participle of the verb with 2nd radical *w*

*maf*-
(u)*wlun / *maf*-
(u)*ülun: the sequence of the 2nd radical *w*
vowelled by a dāmma, preceded by a sukūn and followed by
the infixed vowelless *ū*: the transfer of the dāmma to the vowel-
less segment preceding it, the change of the *w* into an *ū* and
the elision of one of the wāws:

In the pattern of the passive participle form *maf*-
(u)*ülun, e.g. *maqwulun / maqw(u)*ülun "what is said", the
first step of the phonological change is that the dāmma of the
2nd radical *w* is shifted to the vowelless segment preceding it
(cf. Åkesson, *Ibn Mas’ūd* 292: fol. 31a and this study par.
9.1.15.). Thus *maqw(u)*ülun with the 2nd radical *w*
vowelled by a dāmma and preceded by a sukūn becomes *maquwulun* after
that the *w*’s dāmma is shifted to the *q*.

At this point in the treatment, two different analyses can be
mentioned which lead *maquwulun* to the result *maq(u)*ülun. The
steps that are involved in them refer to Sibawaihi’s and al-
Aḥfaše’s different theories (for discussions see Zamaḥšarī, 180-
181, Ibn Ya’īš, X, 78-81, Åkesson, *Ibn Mas’ūd* 292: fol. 31a,

According to the theory of Sibawaihi, *maquwulun* which
presents a cluster of two vowelless wāws, the *w* preceded by a
dāmma and the *ū*, becomes *maquwlun* after that the infixed wāw,
i.e. the *ū*, is elided. According to him, *maquwlun* is formed ac-
cording to the pattern *maf*-
(u)lun. As the vowelless *w* is preceded
by a ḍammat, the w is changed into an ā so that it becomes maq(u)ūlun.

According to Sībawahī it is the infixed wāw: the ā, that is elided from maquwūlun on account of the principle that the elision of the added segment, - by which he means the infix in this form -, is more prior than the elision of a radical.

Al-Ḥfaṣ’s approach is different as he considers that in maquwūlun it is the 2nd radical w that is elided and not the infixed wāw as Ṣībawahī believes it to be. So according to him maquwūlun > maq(u)ūlun is formed according to the pattern maf(u)ūlun, and not mafū’lun as according to Ṣībawahī’s theory. Al-Ḥfaṣ considers that it is 2nd radical w that is elided because he adheres to the principle that the added segment, the ā, is an infix marking the passive participle and the marker is not to be elided. Ṣībawahī’s answer to this argument is that the marker is not to be elided if it is the only marker in the form, but it can be elided if there is another marker in the word, which is the case here, as we have the m prefix.

6.5.7. The passive participle of the verb with 2nd radical y maf(u)wlun / maf(u)ūlun: the sequence of the 2nd radical y vowelled by a ḍammat, preceded by a sukūn and followed by the infixed vowelless ā: the transfer of the ḍammat to the vowelless segment preceding it, the change of the ḍammat into a kasra, the elision of the infixed ā or the 2nd radical y, and the change of the y into an ī or the ā into an ī respectively:

An example of a passive participle of a verb with 2nd radical y is maby(u)ū’uun "sold" (cf. par. 9.1.16.). The 1st step of the phonological procedure that is carried out in it is the following (cf. Åkesson, Ibn Masūd 292: fol. 31a): maby(u)w’uun > maby(u)ū’uun with the 2nd radical y vowelled by a ḍammat and
preceded by a sukūn becomes *mabuyuw‘un* and then *mabuyū‘un* after that the y’s dāamma is shifted to the b.

As with the passive participle with 2nd radical w *maqw(u)ūlun* (cf. par. 6.5.6.), both Sībawaihi’s and al-Ḥfaše’s differences of opinions concerning the phonological changes that are carried out from *mabuyū‘un* to the result *mab(i)ū‘un*, are applied (for discussions see Zamābšarī, 180-181, Ibn Ya‘īs, X, 78-81, Ákesson, *Ibn Mas‘ūd* 292: fols. 31a-31b, Howell, IV, fasc. I, 1498-1501). They can be illustrated as follows:

According to Sībawaihi, *mabuyū‘un* that has a cluster of a vowelless y and ū becomes *mabuy‘un* after the elision of the infixed ū. As there is in it a vowelless y preceded by a dāamma, the dāamma is changed into a kasra so that it becomes *mabiyy‘un*. So according to his theory, *mabiyy‘un* is formed according to *mafī‘lun*. It can be observed that in *mabiyy‘un*, the vowelless y is preceded by a kasra, which is the reason why the y is changed into an ī, namely *mab(i)ū‘un*.

According to al-Ḥfaš, *mabuyū‘un* which has a cluster of a vowelless y and ū becomes *mahu(ū)‘un* after that its 2nd radical y is elided. Then the dāamma of the b is replaced by a kasra as an indication of the elided y so that it becomes *mabīū‘un*. As there is in it a disliked combination of an ū preceded by a kasra, the ū is changed into an ī so that it becomes *mab(i)ū‘un*. So according to his theory, *mab(i)ū‘un* is formed according to *maf(i)ī‘lun*.

An analysis of both these theories shows that according to Sībawaihi’s, it is the infixed ū that is elided from *mabuyū‘un* before that the other changes are carried out in it whereas according to al-Ḥfaš it is the 2nd radical y that is elided. As for the reasons why the infixed segment is elided in the first case and the radical in the other, they are the same as those concerning *maqwuwulun / maqw(u)ūlun* (cf. 6.5.6.).
6.5.8. The imperative of the verb with 2nd radical w or y: the sequence of the 2nd vowelled radical w or y that is preceded by a sukūn: the transfer of the vowel to the vowelless segment preceding it, the lengthening of the vowel into an ā or an ĩ respectively, and the elision of the ā or ĩ in both the 3rd person of the masc. sing. and the 3rd person of the fem. pl. and its retaining in the remaining persons:

I shall discuss at first the verb with 2nd radical w and then the verb with 2nd radical y.

6.5.8.1. The verb with 2nd radical w:

In the case of the 3rd person of the masc. sing. of the imperative that is formed according to ʿufwul (ufcul), the 2nd radical w is vowelled by a dāamma and preceded by a sukūn. The phonological changes that are carried out imply the transfer of the 2nd radical w's vowel to the vowelless 1st radical preceding it, the elision of the connective hamza of the imperative on account that the 1st radical is now vowelled and hence the hamza that is prefixed to hinder the word from beginning with a vowelless segment is not more needed, the change of the w into an ā and the elision of the ā to avoid the cluster of two vowelless segments.

An example is ʿuqwul that becomes qul "say!" (cf. Åkesson, Ibn Masʿūd 290: fol. 30a, ʿAbd al-Raḥīm, Šarf 31, and for this sequence see par. 9.1.15). The procedure is the following: ʿuqwul with the 2nd radical w vowelled by a dāamma and preceded by a sukūn becomes ʿuquwl after that the w's dāamma is shifted to the vowelless q. As the 1st radical q is vowelled, the connective hamza of the imperative is elided because it is not more needed, so it became quwl. The vowelless w is here preceded by a dāamma which is why it is changed into an ā so it be-
comes \( q(u)\ddot{u}l \). As there is now a cluster of two vowelless segments, the \( \ddot{u} \) and \( l \), the \( \ddot{u} \) is elided so it becomes \( qul \).

The \( \ddot{u} \) is as well elided in the 3rd person of the fem. pl. \( qul-na \) "Say /fem. pl." which is not said \( q(u)\ddot{u}l-na \) to avoid the combination of the vowelless \( \ddot{u} \) and the 3rd vowelless radical \( l \).

However in the forms of the imperative to which the vowelless agent pronoun is suffixed to, namely the 2nd person of the fem. sing. with the \(-\ddot{i}\) suffix, e.g. \( q(u)\ddot{u}l(i)-\ddot{i} \), the dual with the \( \ddot{a} \) suffix, e.g. \( q(u)\ddot{u}l(a)-\ddot{a} \) and the 2nd person of the masc. pl., with the \(-\ddot{u}\) suffix, e.g. \( q(u)\ddot{u}l(u)-\ddot{u} \), the 2nd radical \( \ddot{u} \) is maintained. The reason is that the 3rd radical of the verb, the \( l \), is not more vowelless due to the suffixation of the pronoun, but vowelled with a vowel that agrees with the nature of the suffix, and hence the situation of having two vowelless segments which would force the elision is not actual in this case.

6.5.8.2. The verb with 2nd radical \( y \):

The phonological changes are the same as those concerning the 3rd person of the masc. sing. of the imperative of verbs with 2nd radical \( w \) that are formed according to \( \ddot{u}f\ddot{u}l \) (cf. above), except that conjugation is instead \( \ddot{u}f\ddot{i}l \), e.g. \( \ddot{u}by\ddot{y}c \) "sell!". Hence the kasra of the \( y \) is shifted to the vowelless segment preceding it, namely \( \ddot{u}by\ddot{y}c \), the connective hamza is elided, namely \( b(i)y^{c} \), the \( y \) is changed into an \( \ddot{i} \), namely \( b(i)\ddot{i}^{c} \), and is then elided, namely \( bi^{c} \).

The \( \ddot{i} \) is as well elided in the 3rd person of the fem. pl. \( bi^{c}-na \) "sell /fem. pl." which is not said \( b(i)\ddot{i}^{c}-na \) to avoid the combination of the vowelless \( \ddot{i} \) and the 3rd vowelless radical \( c \).

In the forms of the imperative to which the vowelless agent pronoun is suffixed to, namely the 2nd person of the fem. sing. with the \(-\ddot{i}\) suffix, e.g. \( b(i)y^{c}(i)-\ddot{i} > b(i)\ddot{i}^{c}(i)-\ddot{i} \), the dual with the \( \ddot{a} \)
suffix, e.g. \( b(i)y^c(a)-\ddot{a} \rightarrow b(i)i^e(c)(a)-\ddot{a} \) and the 2nd person of the masc. pl., with the -\( \ddot{u} \) suffix, e.g. \( b(i)y^c(u)-\ddot{u} \rightarrow b(i)i^e(c)(u)-\ddot{u} \), the 2nd radical \( y \) is maintained.

6.5.9. The active participle of the verb with 2nd radical \( w \) or \( y \): the sequence of the 2nd radical \( w \) or \( y \) vowelled by a kasra and preceded by a vowelless \( \ddot{a} \): the change of the \( wi \) or \( yi \) into \( 3i \) respectively:

I shall discuss at first the verb with 2nd radical \( w \) and then the verb with 2nd radical \( y \).

6.5.9.1. The verb with 2nd radical \( w \):

The active participle’s form of the verb with 2nd radical \( w \) is \( f(a)\ddot{a}i^c\text{ilun}. \) In this form the 2nd radical \( w \) is vowelled by a kasra and preceded by a vowelless \( \ddot{a} \). The phonological procedure that is carried out in it implies that the \( wi \) is changed into \( 3i \) (cf. \(^c\) Abd al-Rahim, \( \text{Šarf} \) 80, this study par. 9.1.1.4. and par. 10.1.1.2.: 3). An example is \( q(a)\ddot{a}\text{wilun} \) that becomes \( q(a)\ddot{a}3\text{ilun} "a sayer". \)

The phonological procedure is different according to Ibn Mas'\( \ddot{u} \)d (cf. \( \text{Åkesson, Ibn Mas'\( \ddot{u} \)d} \) 290: fol. 30b). He adheres to the theory that \( q(a)\ddot{a}\text{wilun} \) with the 2nd radical \( w \) vowelled by a kasra is influenced by the fat\( \ddot{u} \)a preceding the \( \ddot{a} \), and the \( \ddot{a} \) is not taken into account because of its vowellessness. So the \( wi \) is changed into an \( \ddot{a} \) on account of the influence of the fat\( \ddot{u} \)a preceding it, so that it becomes \( q(a)\ddot{a}\ddot{a}\text{alun} \). The reason why one of the alifs is not dropped resulting in \( q(a)\ddot{a}\text{alun} \), is to prevent that the active participle is mixed up with the perfect \( q(a)\ddot{a}\text{ala} "he said". The 2nd \( \ddot{a} \) is therefore changed into a hamza to prevent the combination of two vowelless alifs, so it became \( q(a)\ddot{a}3\text{ilun} \).

6.5.9.2. The verb with 2nd radical \( y \):

Alike the active participle of the verb with 2nd radical \( w \) that is formed according to \( f\ddot{a}i^c\text{ilun} \) (cf. par. 6.5.9.: 1), the active parti-
ciple of the verb with 2nd radical y, has its yi changed into 'i instead (cf. par. 9.1.14, 10.1.1.3.: 2). An example is b(a)āyi'cun with the 2nd radical y vowelled by a kasra and preceded by an ə that becomes b(a)ā'ə'i'cun "a seller" after that the yi is changed into an 'i.

6.5.10. Anomalous cases of active participles of the verb with 2nd radical w: the sequence of the 2nd radical w vowelled by a kasra and preceded by a vowelless ə in them: the elision of the w or the transposition of segments together with the elision of the glide:

The cases that I will discuss are those that imply the elision of the 2nd radical w and the transposition of the segments together with the elision.

1- The elision of the 2nd radical w:

In some cases of active participles, the 2nd weak radical is elided (cf. Åkesson, Ibn Mas'ūd 290-292: fol. 30b). Some examples are h(a)ā'cun "vomiting" used instead of h(a)ā'ə'i'cun underlyingly h(a)āwi'cun from hawa'c a "to vomit", l(a)ā'cun "suffering" used instead of l(a)ā'ə'i'cun underlyingly l(a)āwi'cun from lawa'c a "to suffer, burn" and h(a)ārūn "undermined" used instead of h(a)ā'ə(irūn underlyingly h(a)āwirūn from hawara "to demolish". The variant h(a)ārūn (instead of h(a)ā'ə(irūn) with the elision of the 'i occurs in the genetive in the sur. 9: 109 ('alā šufā ġurufin hārin) "On an undermined sand-cliff". Hence these examples of active participles are formed according to the pattern fālūn and not fā'ilūn. The phonological changes concerning one of these examples, e.g. h(a)āwi'cun that becomes h(a)ā'cun "vomitting", are the following: h(a)āwi'cun with the 2nd radical w vowelled by a kasra and preceded by an ə becomes h(a)ā'ə'i'cun
after that the *wi* is changed into an *i*. The procedure resulting in the elision of the 2nd weak radical is that the 2nd radical *w* vowelled by a kasra in *h(a)awiʿun* is influenced by the fatḥa of the *h* preceding the ā, on account of the principle that the ā is not taken into account because of its vowellessness. So the *wi* is changed into an ā so that it becomes *h(a)āʿun*. As there is in it a cluster of two vowelless alifs, one of them is elided so that it becomes *h(a)āʿun*.

2- The transposition of segments together with the elision of the glide

The transposition of the segments is carried out in some examples (for an example concerning the active participle of a verb with 1st radical *w*, e.g. *w(a)āhidun* > *h(a)ādin* see par. 5.2.1.6.).

An example is *š(a)āwikun* "sharp" in which the 2nd radical *w* changes place with the 3rd radical (cf. Ibn Manẓūr, IV, 2362-2363). It becomes at first *š(a)ākiwun* formed according to the pattern *f(a)āliʿun* instead of *f(a)āʿilun*. As the form ends with a weak radical, it resembles the active participle of verbs with 3rd weak radical, e.g. the underlying forms *r(a)āmiyūn* for the nominative and *r(a)āmiyin* for the genitive which becomes *r(a)āmin* "one who is throwing" for both the nominative and the genitive (cf. Wright, II, 90). This is how it is understood that the variant *š(a)ākiwun* has its last radical elided and the *tanwin* "nuation" is given to its 2nd radical on the analogy of this category of forms, so that it becomes *š(a)ākin*. It occurs in this verse recited by Ṭairīf b. Tamīm al-ʿAmbarī al-Tamīmī, cited by Sibawaihi, II, 419, Ibn Ğinnī, *Munṣīf* II, 53, III, 66, Howell, IV, fasc. I, 1494, Åkesson, *Ibn Masʿūd* 317: (292):

"Fa-taʿarrafūnī ʿinnanī ʿanā dākumu
šākin silāḥī fi l-ḥawādithi muʿlimu". Then seek to know me: verily that I, this one, [am such that]
sharp is my weapon in mishaps, am a bearer of the cognizance, or badge, or device, of the valiant".

6.5.11. **The verbal noun of Form I of the verb with 2nd radical w or y: the sequence in which the 2nd radical w or y is vowelless and preceded by a fatḥa: the soundness of the w or y:**

The verbal noun of Form I of the verb with 2nd radical w or y is faclun. In both these forms the 2nd weak radical is vowelless and preceded by a fatḥa (cf. par. 9.1.1.), which is the reason why it remains sound. An example of a verbal noun with 2nd radical w is qawlun "a saying" and with 2nd radical y bayʿun "a selling".

6.5.12. **The verbal nouns of Form IV ʿifʿ(ā)ālun and Form X ʿistifʿ(ā)ālun of the verb with 2nd radical w: the sequence in which the w is vowelled by a fatḥa and preceded by a sukūn: the transfer of the w's fatḥa to the segment preceding it, the change of the w into an ā, the elision of one of the alifs and the compensation with the tāʾ marbūṭa:**

In some examples of verbal forms of Form IV ʿifʿ(ā)ālun, e.g. ʿiqw(ā)āmūn "the act of being constant (in prayer)", the 2nd radical w is vowelled by a fatḥa and preceded by a sukūn. The phonological changes that are carried out in it resulting in ʿiq(ā)āmatun are the following: ʿiqw(ā)āmūn with the 2nd radical w vowelled by a fatḥa and preceded by a sukūn becomes at first ʿiqwāmūn after that the fatḥa is shifted to the vowelless q and then ʿiq(ā)āmūn after that the w is changed into an ā. As there is in it a cluster of two vowelless segments, the alifs, one of them is elided resulting in ʿiq(ā)āmūn, and the tāʾ marbūṭa is suffixed to compensate for this elision so that it becomes
'iq(a)āmatun. It can be mentioned that the tā' marbūta is elided from wa-'iq(a)āmatu (cf. Sibawaihi, II, 260-261, Zamaḥṣarī, 179, de Sacy, I, 294, Howell, I, fasc. III 1126, fasc. IV, 1571-1572, IV, fasc. I 1424, Wright, II, 120-121), in the sur. 21: 73 (wa-'iqāmu l-ṣalātī) "to establish regular prayers", the reason being that l-ṣalātī, which is the second element of the construct state, is considered as a substitute that compensates for the elided tā' marbūta (compare the case of 'ida l-ʿamri in par. 5.2.1.2.).

The same phonological changes apply for Form X of the verbal noun that is formed according to 'isti:r(a)iilun, e.g. 'istiqw(a)āmun that becomes 'istiq(a)āmatun "the act of walking uprightly in the paths of religion". The 2nd radical w in 'istiqw(a)āmun, which is vowelled by a fatḥa, is changed into an ā after that its fatḥa is shifted to the q, so that it becomes 'istiq(a)āāmun, then one of the alifs is elided to avoid the cluster of two vowelless alifs, and the tā' marbūta is suffixed to the word as a compensation for this elision.

6.5.13. The passive voice of the perfect of the verb with 2nd radical w or y: the sequence of the 2nd radical w or y vowelled by a kasra and preceded by a ḍamma: the transfer of the kasra to the 1st radical and hence the change of the 1st radical’s ḍamma into a kasra, the change of the w into a y or the y into an ī respectively, or the elision of the 2nd radical w’s or y’s kasra and the lengthening of the ḍamma preceding it into an āū:

I shall discuss at first the verb with 2nd radical w and then the verb with 2nd radical y.
6.5.13.1. The verb with 2nd radical w:

An example of a verb in the passive voice *fu'ila* is *quwila* "was said". The *w* is vowelled by a kasra in it and preceded by a damma, which is deemed as a heavy combination. The usual following phonological changes that are carried out in it resulting in *q(i)ila* are the following (cf. Åkesson, *Ibn Mas'ūd* 294: fol. 31b, Bakkūš, *Taṣrīf* 146, Ābd al-Raḥīm, *Ṣarf* 31-32, this study par. 9.1.6.):

*quwila* with the 2nd radical *w* vowelled by a kasra and preceded by a damma becomes *qiwla* after that the kasra of the *w* is shifted to the 1st radical and hence replaces the damma. As the vowelless *w* is preceded by a kasra in it, the *w* is changed into a *i* resulting in *qiyla*. Then the vowelless *y* preceded by a kasra is lengthened into an *ī* so that it became *q(i)ila*.

According to another dialectal variant which is deemed as feeble, the *w* of *quwila* is made vowelless for the purpose of alleviation, and the variant *quwla* resulting in *q(u)ula* occurs (cf. Åkesson, *Ibn Mas'ūd* 294: fol. 31b, par. 9.1.6.). This is the dialectal variant of the Banū Asad (for discussions see Bakkūš, *Taṣrīf* 146-147). I illustrate the changes with the following:

*quwila* with the 2nd radical *w* vowelled by a kasra and preceded by a damma becomes *quwla* after that the *w*'s kasra is elided to alleviate. As the vowelless *w* is preceded by a damma in it, the *w* is lengthened into an *ū*, or in other words the *w* is assimilated to the damma resulting in *q(u)ula*.

According to another dialectal variant, the *ʾišmām*, i.e. "giving the vowel preceding the glide a flavour of the damma so that it notifies of the underlying form", is carried out: *q(i)ila* is said *quila* (cf. ibid).

Hence I can mention the following variants with the vowelled pronoun of the agent in the perfect (cf. Sībawaihi, II, 398,

Form I *quwil-na* with the *-na* → 1- *qil-na* "were said pl."
  → 2- *qu(u)ūl-na*
  → 3- *išmām: quil-na*

6.5.13.2. The verb with 2nd radical *y*:

An example of a passive voice of a verb with 2nd radical *y* that I take up is *buyīʿa* "was sold" that is formed according to *fuʿila*. As with *quwila* (cf. above) the three variants can be applied for it. The usual phonological changes concerning the first variant (cf. par. 9.1.6.) are the following:

*buyīʿa* with the 2nd radical *y* vowelled by a kasra and preceded by َّdāmma becomes *biyīʿa* after that the kasra of the *y* is shifted to the 1st radical and hence replaces the َّdāmma. As the 2nd radical vowelless *y* is preceded by a kasra in it, the *y* is lengthened into an *i* so that it becomes *bi(i)ʿa*.

The two other possibilities are *b(u)ūʿa* (cf. par. 9.1.6.) and with the *išmām* carried out in it *buiʿa*.

Hence the following variants with the vowelled pronoun of the agent in the perfect can be mentioned:

Form I *buyīʿ-*na with the *-na* → 1- *biʿ-*na "were sold pl."
  → 2- *b(u)ūʿ-*na
  → 3- *išmām: buiʿ-*na

6.5.14. The passive voice of the imperfect of the verb with 2nd radical *w* or *y*: the sequence of the 2nd radical *w* or *y* vowelled by a fāṭḥa and preceded by a sukūn: the transfer of
the fatha to the 1st vowelless radical and the change of the w or the y into an ā:

The imperfect of the passive voice of the verb with 2nd radical w or y is formed according to yuf'alū. The sequence in this form is that of a glide vowelled by a fatha and preceded by a sukūn (for discussions see par. 9.1.12.). The first rule that is taken into account is that the fatha of the glide is shifted to the vowelless segment preceding it. This in its turn leads to a second rule that is the change of the glide into an ā.

An example of a verb with 2nd radical w is yuqwalu which becomes yuq(a)ālū "is said". On examination, the phonological changes are the following:

yuqwalu with the 2nd radical w vowelled by a fatha preceded by a sukūn becomes yuqawlu after that the w's fatha is shifted to the 1st radical q. As yuqawlu has its vowelless w preceded by a fatha, it becomes yuq(a)ālū with the w changed into an ā. This change of the vowelless w into an ā may be said to be triggered by the fatha preceding the w.

An example of a verb with 2nd radical y is yubyā'u which becomes yub(a)ā'ū "is sold". On examination, yubyā'u with its 2nd radical y vowelled by a fatha preceded by a sukūn becomes yubayā'u with the y's fatha shifted to the 1st radical b.

And yubayā'u with the vowelless y preceded by a fatha becomes yub(a)ā'ū with the y changed into an ā.

6.5.15. The noun of place of the verb with 2nd radical w: the sequence of the 2nd radical w vowelled by a fatha and preceded by a sukūn: the transfer of the fatha to the vowelless segment preceding it and the change of the w into an ā:

The pattern of the noun of place of the verb with with 2nd radical w is maf'alun. An example is maqwalun resulting in
maq(a)ülüun "speech" (cf. Åkesson, Ibn Mas'ud 292: fol. 31b). The sequence is that of a w vowelled by a faṭḥa and preceded by a sukūn (cf. par. 9.1.12.). Alike the cases analysed in par. 6.5.14., the first rule that is taken into account is the transfer of the glide's faṭḥa to the vowelless segment preceding it, and the second rule is the change of the glide into an ā.

Thus maqwalun with the 2nd radical w vowelled by a faṭḥa and preceded by a sukūn becomes at first maqawlun with the w’s faṭḥa shifted to the 1st radical q. As maqawlun has its vowelless w preceded by a faṭḥa, it becomes maq(a)ülüun with the w changed into an ā.

6.6. A few remarks concerning some homonymous forms

One form can be common for two different forms, and it is only by al-farq al-taqdirī "the theoretical difference" existing between both their underlying forms that it is possible to separate the forms from each other (for an example of a verb form with 3rd radical w, yaʕf(u)una "he remits it, or they remit it /fem. pl., respectively" see par. 7.6).

An example of such a form referring to a verb with 2nd radical w is qul-na which is common for both the 3rd person of the fem. pl. of the perfect "they said, fem. pl." and the 2nd person of the fem. pl. of the imperative "say! fem. pl.". The Arab grammarians seemed satisfied with the underlying forms of both these tenses which differentiate them from one another. As a matter of fact, the form qul-na referring to the 3rd person of the fem. pl. of the perfect is underlyingly qawal-na (for the phonological change carried out in it see par. 6.5.2.: 1) and the form qul-na referring to the 2nd person of the fem. pl. of the imperative is underlyingly ʕuqwul-na (cf. par. 6.5.8.1.).
Another example of such a form referring to a verb with 2nd radical \( y \) is \( bi^c-na \) "they sold, or they were sold /fem. pl.", which is common for the active and the passive voice. The underlying form of the active voice is \( baya^c-na \) with the \( b \) and the \( y \) vowelled by a fatha (for the phonological change that is carried out in it see par. 6.5.2.2.) and that of the passive voice is \( buyi^c-na \) (with the \( b \) vowelled by a damm and the \( y \) vowelled by a kasra (for the phonological change see 6.5.13.2.).

6.7. Conclusion
I have presented the verb with 2nd \( w \) or \( y \) radical and some of its derivatives in this chapter. I have also briefly discussed the soundness or the unsoundness of the middle radical.

It has been observed that the glide is maintained in the verbal noun of Form I as it is vowelless and preceded by a fatha (cf. 6.5.11.), e.g. "a saying" and "a selling". It is changed into an \( \ddot{a} \) in the 3rd persons of the perfect as it is vowelled and preceded by a fatha (cf. 6.5.1.), e.g. \( qawala > q(a)\ddot{a}la \) "he said" and \( baya^c-a > b(a)\ddot{a}c-a \) "to buy".

The \( \ddot{a} \) preceding the vowelless 3rd radical is elided in the persons of the perfect to which the vowelled pronoun of the agent is suffixed to and the vowel of the 1st radical is changed into another vowel, e.g. \( q(a)\ddot{a}l-na \) (from \( qawal-na \)) that becomes \( qal-na \) and then \( qul-na \) "they said /fem. pl." (cf. 6.5.2.).

The vowel of the 2nd radical is shifted to the vowelless segment preceding it together with other changes that are carried out in many forms. This shifting is found in the imperfect of the conjugation \( yaf^c-alu \), e.g. \( yah\ddot{w}afu > yah\ddot{aw}fu > yah(\ddot{a})\ddot{af}u \) "he is afraid" (cf. 6.5.3.), \( yaf^c-ulu \), e.g. \( yaq\ddot{w}ulu > yaq\ddot{w}ulu > yaq(u)\ddot{ulu} \) "he says" (cf. 6.5.4.), \( yaf^c-ilu \), e.g. \( yah\ddot{b}yi^c-u > yah\ddot{b}i^c-u > yah(i)^c-u \)
"he sells" (cf. 6.5.5.), in the passive participle of the verb with 2nd radical w, e.g. maqw(u)ālun > maquwālun > maq(u)ūlun "what is said" (cf. 6.5.6.) or 2nd radical y, e.g. maby(u)ūṭun > mabuyūṭun "what is sold" (cf. 6.5.7.), in the imperative, e.g. ʿuqwul > ʿuqwul > qwul > q(u)ūl > qul "say!" and ʿibiyū > ʿibiyū > biyū > b(i)ū > biū "sell!" (cf. par. 6.5.8.), in the passive voice of the imperfect, e.g. yuqwalu > yuqawlu > yuq(a)ālu "is said" and yubyaʿu > yubayʿu > yub(a)āʿu (cf. 6.5.14.), in the noun of place of the verb with 2nd radical w, e.g. maqwalun > maqawlwun > maq(ā)ūlun "speech" (cf. 6.5.15.) and in the passive voice of the perfect, e.g. quwila > qiwla > qiyla > q(i)yla and buyiʿa > biyʿa > bi(i)ʿa (cf. 6.5.13.).

The w or y that is vowelled by a kasra and preceded by an ā in the active participle is changed into a hamza, e.g. q(ā)āwilun > q(ā)āwilun "a sayer" and b(ā)āyiʿun > b(ā)āyiʿun "a seller" (cf. 6.5.9.).

In somes anomalous cases of active participles of the verb with 2nd radical w, the wi that is changed into ʾi is elided, e.g. h(ā)āwiʿun > h(ā)āʾiʿun > h(ā)āʿiʿun "vomitting", or the segments are transposed and the wi is elided, e.g. š(ā)āwikun > s(ā)ākiwun > š(ā)ākin "sharp" (cf. 6.5.10).

The w of the verbal nouns of Form IV ʾifʾ(ā)ālun and Form X ʾistifʾ(ā)ālun of the verb with 2nd radical w is changed into an ā, then one of the alifs is elided and the elision is compensated by the tāʾ marbūṭa, e.g. ʾiqw(ā)āmun > ʾiq(ā)āāmun > ʾiq(ā)āmun > ʾiq(ā)āmatun "the act of being constant (in prayer)" (cf. 6.5.12.).
In the next chapter I shall study the verb with 3rd \( w \) or \( y \) radical and some of its forms.
7. The verb with 3rd radical \( w \) or \( y \)

The verb with 3rd radical \( w \) or \( y \) or the defective verb is generally termed as *mu‘tal al-lām or al-nāqīṣ*.

A less well-known nomination is *dū l-‘arba‘a* "the one with four segments" that is given to it by Ibn Mas‘ūd (Åkesson, *Ibn Mas‘ūd* 326: fol. 32a), because it maintains its 3rd weak radical when the vowelled suffixed agent pronoun, namely the -\( tu \) "1st person of the sing.", -\( ta \) "2nd person of the masc. sing.", -\( ti \) "2nd person of the fem. sing.", -\( tumā \) "2nd person of the dual", -\( tum \) "2nd person of the masc. pl." or -\( na \) "3rd person of the fem pl.", is attached to it, by contrast to the verb with 2nd \( w \) or \( y \) radical that loses its 2nd weak radical in these cases (cf. par. 6.). Hence it comprehends four segments in these perfect forms. For the sake of concreteness, I illustrate it with the following examples:

\textit{a- verb with 3rd radical \( w \)}

An example of a verb with 3rd radical \( w \) in the 1st person of the sing. is *da‘aw-tu* "I called", and hence *da‘aw-ta* "you called"
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/masc. sing."), *da'aw-ti* "you called /fem. sing." and *da'aw-na* "they called /fem. pl.". Thus:

\[
\begin{align*}
\text{da'aw-tu} & \quad = \quad \text{fa'al-tu} \\
\text{da+a+w+tu} & \quad = \quad \text{fa+a+l+tu} \\
1 + 2 + 3 + 4 \text{ segments} & \quad = \quad 1 + 2 + 3 + 4 \text{ segments}
\end{align*}
\]

b- verb with 3rd radical *y*

An example of a verb with 3rd radical *y* in the 1st person of the sing. is *ramay-tu* "I threw", and hence *ramay-ta* "you threw /masc. sing.", *ramay-ti* "you threw /fem. sing." and *ramay-na* "they called /fem. pl.". Thus:

\[
\begin{align*}
\text{ramay-tu} & \quad = \quad \text{fa'al-tu} \\
\text{ra+m+a+y+tu} & \quad = \quad \text{fa+a+l+tu} \\
1 + 2 + 3 + 4 \text{ segments} & \quad = \quad 1 + 2 + 3 + 4 \text{ segments}
\end{align*}
\]

7.1. The conjugations of the verb with 3rd radical *w*

The verb with 3rd radical *w* falls into the following conjugation:

1- *fa'ala yaf'ulu*, e.g. *gazawa yağzuwū* "to attack" that becomes after the phonological change *gazā yağzū*.

7.2. Examples of some derivatives of the verb with 3rd radical *w*

An example of a verb with 3rd radical *w* in the perfect is *gazā* "to attack" (with final *alif mamdūda*). It becomes *yağzū* in the imperfect of the indicative active. Its imperative is *yuğzu*, its active participle is *gāzin*, its *maṣdar* is *gazwun*, its perfect passive is *guziya*, its imperfect is *yugzā* and its passive participle is *mağzīyun*.

7.3. The conjugations of the verb with 3rd radical *y*

The verb with 3rd radical *y* falls into the following conjugations:
1- fa'ala yaf'ili, e.g. ramaya yarmiyu "to throw" that becomes after the phonological change ramā yarmī.

2- fa'ala yaf'alu, e.g. nahaya yanhayu "to forbid" that becomes after the phonological change nahā yanhā.

3- fa'ilal yaf'alu, e.g. raḍiya yarḍayu "to consent" that becomes after the phonological change raḍā yarḍā.

7.4. Examples of some derivatives of the verb with 3rd radical y

An example of a verb with 3rd radical y in the perfect is ramaya "to throw". It becomes yarmī in the imperfect of the indicative active. Its imperative is ʿirmi, its active participle is rāmin, its maṣdar is ramyun, its perfect passive is rumiya, its imperfect is yurmā, its passive participle is marmīyun and the nouns of time and place are marman.

7.5. Remarks concerning the phonological procedures in some of the forms of the verb with 3rd radical w or y

Most of the phonological changes that are carried out in the verb with 3rd radical w and some of its derivatives are similar to those that are carried out in the verb with 3rd radical y and some of its derivatives. The w or the y can be changed in some forms into another segment, be elided or retained. Its vowel can as well be shifted to the segment preceding it after the elision of the w or the y or its vowel can be elided and the vowel preceding it can be changed into another vowel (cf. 7.5.5.).

Thus I present and study the following forms and sequences:

7.5.1. The 3rd person of the masc. sing. of the perfect: the sequence of the vowelled w or y preceded by a fatḥa: its change into an ā.
7.5.2. The 3rd person of the fem. sing. and fem. dual of the perfect: the sequence in which the vowelless ā (that is substituted for the glide vowelled by a fathā) is followed by the -t that marks the fem.: the elision of the ā.

7.5.3. The persons in the perfect to which the vowelled agent pronoun is suffixed to: the sequence of the 3rd vowelless weak radical preceded by a fathā: the retaining of the w or y.

7.5.4. The 3rd person of the masc pl. of the perfect of the conjugation fa'ala: the sequence of the 3rd radical w or y vowelled by a đamma (on account that it is followed by the vowelless ū / w marker of the pl.), and preceded by a fathā: the change of the wu or yu into an ā and the elision of the ā.

7.5.5. The 3rd person of the masc pl. of the perfect of the verb with 3rd radical y of the conjugation fa'ila: the sequence of the 3rd radical y vowelled by a đamma (on account of the vowelless ū / w marker of the pl. following it), and preceded by a kasra: the transfer of the đamma before the y and hence the change of the kasra into a đamma, the elision of the y and the lengthening of the đamma into an ū according to a theory, or the elision of the y's đamma, the elision of the y and the change of the kasra into a đamma according to another theory.

7.5.6. The persons in which no suffix is attached to the imperfect: the sequence in which the glide is vowelled by the đamma of the indicative and preceded by a vowel: the elision of the đamma.

7.5.7. The duals of the imperfect: the sequence in which the glide is vowelled by a fathā and preceded by a vowel: the glide’s retaining.

7.5.8. The 2nd person of the fem. sing. of the imperfect of a verb with 3rd radical y: the sequence in which the 3rd radical y is
vowelled by a kasra and is followed by the vowelless \( \text{i} \) marker of the fem. sing.: the elision of the vowel of the \( y \) together with the \( y \).

7.5.9. The 2nd and 3rd persons of the masc. pl. of the imperfect of a verb with 3rd radical \( y \): the sequence in which the 3rd radical \( y \) is vowelled by a \( \damma \), preceded by a kasra and followed by the vowelless \( \ddot{u} \) marker of the masc. pl.: the elision of the \( \damma \) of the \( y \) together with the \( y \) and the change of the kasra into a \( \damma \).

7.5.10. Form IV and other derived forms of the perfect of verbs with 3rd \( w \) radical to which the vowelled agent pronoun is suffixed to: the sequence of the 3rd vowelless weak radical preceded by a \( \fatha \): the change of the \( w \) into a \( y \).

7.5.11. Form IV and other derived forms of the imperfect of the verbs with 3rd \( w \) radical: the sequence of the 3rd vowelled weak radical preceded by a kasra in them: the change of the \( w \) into a \( y \).

7.5.12. The active participle of the verb with 3rd radical \( y \): the sequence of the vowelled \( y \) preceded by a kasra in the definite and indefinite forms: the elision of the vowel of the \( y \) in the definite form, and the elision of the vowel together with the 3rd radical \( y \) in the nominative and genitive cases with the \( tanwin \) replacing the kasra of the 2nd radical in the indefinite form.

7.5.13. The passive participle of the verb with 3rd radical \( y \): the sequence of the vowelless infixed \( \ddot{u} \) preceding the \( y \): the change of the vowelless infixed \( \ddot{u} \) into a \( y \), the change of the \( \damma \) preceding the changed \( y \) into a kasra and the assimilation of the \( y \) to the \( y \).

7.5.14. The noun of place of the verb with 3rd radical \( y \): the sequence of the vowelled \( y \) preceded by a kasra: the change of the kasra into a \( \fatha \) and of the \( y \) into an \( alif maqṣūra \).
7.5.15. The jussive of the verb with 3rd radical \( w \) or \( y \): the sequence of the vowelless \( w \) or \( y \) preceded by a vowel: the elision of the \( w \) or \( y \).

7.5.1. The 3rd person of the masc. sing. of the perfect: the sequence of the vowelled \( w \) or \( y \) preceded by a fatḥa: its change into an ā:

I shall discuss at first the verb with 2nd radical \( w \) and then the verb with 2nd radical \( y \).

7.5.1.1. The verb with 3rd radical \( w \):

The verb with 3rd radical \( w \) occurs in the 3rd person of the masc. sing. of the perfect according to the conjugation \( fa'ala \). In this sequence the \( w \) is vowelled by a fatḥa and is preceded by one, which results in its change into an ā namely an alif mamdūda (cf. Åkesson, Ibn Masʿūd 326: fol. 32a; and for discussions concerning the sequence formed of a glide vowelled by a fatḥa and preceded by one see par. 9.1.2.).

An example of a verb with a 3rd radical \( w \) is \( gazawa \) with the 3rd radical \( w \) vowelled by a fatḥa and preceded by one that becomes \( gaz(a)ā \) "to raid" with the wa changed into ā [sc. alif mamdūda].

7.5.1.2. The verb with 3nd \( y \) radical:

The verb with 3rd radical \( y \) occurs according to \( fa'ila \) or \( fa'ila \). The \( ya \) in both these conjugations is changed into ā, namely an alif maqṣūra (cf. Åkesson, Ibn Masʿūd 326: fol. 32a; for discussions concerning the sequence formed of a glide vowelled by a fatḥa and preceded by one see par. 9.1.2.).
An example of a verb with a 3rd radical \( \text{\textit{y}} \) formed according to \( \text{\textit{fa'ala}} \) is \( \text{\textit{ramaya}} \) with the 3rd radical \( \text{\textit{y}} \) vowelled by a fatha and preceded by a fatha that becomes \( \text{\textit{ram(a)ā}} \) "to throw" with the \( \text{\textit{ya}} \) changed into an \( \text{\textit{ā}} \) [sc. \textit{alif maqṣūra}].

An example of a verb with a 3rd radical \( \text{\textit{y}} \) formed according to \( \text{\textit{fa'ila}} \) is \( \text{\textit{rādiya}} \) with the 3rd radical \( \text{\textit{y}} \) vowelled by a fatha and preceded by a kasra that becomes \( \text{\textit{rād(a)ā}} \) "to consent" with the \( \text{\textit{ya}} \) changed into \( \text{\textit{ā}} \) [sc. \textit{alif maqṣūra}] and the kasra changed into a fatha.

7.5.2. The 3rd person of the fem. sing. and fem. dual of the perfect: the sequence in which the vowelless \( \text{\textit{ā}} \) (that is substituted for the glide vowelled by a fatha) is followed by the -\( \text{\textit{t}} \) that marks the fem.: the elision of the \( \text{\textit{ā}} \):

It has been asserted earlier that in the case of the 3rd person of the fem. sing. of the verb with 3rd \( \text{\textit{w}} \) or \( \text{\textit{y}} \) radical to which the vowelless suffix -\( \text{\textit{t}} \) that marks the fem. is suffixed to, the 3rd weak radical is at first changed into \( \text{\textit{ā}} \) on account of the fatha preceding it (for this sequence see par. 7.5.1.1., 7.5.1.2.) and the \( \text{\textit{ā}} \) is then elided to avoid the cluster of two vowelless segments: the vowelless \( \text{\textit{ā}} \) and the vowelless fem. marker -\( \text{\textit{t}} \). The \( \text{\textit{ā}} \) is as well elided in the 3rd person of the fem. dual when the vowelled fem. marker -\( \text{\textit{t(a)ā}} \) is suffixed to it.

Thus I illustrate this with the following:

7.5.2.1. The verb with 3rd radical \( \text{\textit{w}} \):

An example of a verb with a 3rd radical \( \text{\textit{w}} \) is \( \text{\textit{gazawa-t}} \) that results in \( \text{\textit{gaza-t}} \) "she raided". The phonological procedure is complex as it involves more than two steps: \( \text{\textit{gazawa-t}} \) with the 3rd radical \( \text{\textit{w}} \) vowelled by a fatha and preceded by one, becomes at first \( \text{\textit{gaz(a)ā-t}} \) with the \( \text{\textit{wa}} \) changed into \( \text{\textit{ā}} \), and as \( \text{\textit{gaz(a)ā-t}} \)
involves the cluster of the vowelless ā and t, it becomes ǧaza-t with the ā elided.

The same principle is in operation in the dual of the 3rd person of the fem., e.g. ǧaza-t(a)ā. It can be observed that the ā that is changed from the 3rd radical vowelled by a fatha, namely the wa, is as well elided in it. Hence the procedure from the base form to the derived form is the following: ǧazawa-t(a)ā > ǧaz(a)ā-t(a)ā > ǧaza-t(a)ā. This elision of the ā is carried out in it spite of the fact that the -t(a)ā ending in ǧaz(a)ā-t(a)ā that marks the fem. dual, has its -t vowelled by a fatha, implying that there does not occur a cluster of two vowelless letters which would trigger off the elision, as in the case of the 3rd person of the fem. sing. ǧaz(a)ā-t resulting in ǧaza-t after the necessary elision of the ā. However according to a theory propounded by Ibn Mas′ūd (cf. Åkesson, Ibn Mas′ūd 326 fol. 32a) it is assumed that there is such a combination theoretically on account that the -t(a) of the -t(a)ā that marks the fem. sing. is underlingly vowelless, i.e. -t, and is only given the fatha when it is connected to the vowelless -ā suffix of the dual.

7.5.2.2. The verb with 3rd radical y:

The reasoning is the same as the one I introduced concerning the verb with 3rd radical w (cf. par. 7.5.2.1.), except that it is the ya that is changed into ā, and then is elided. An example is ramaya-t "she threw" which has the 3rd radical y vowelled by a fatha and preceded by one. It becomes ram(a)ā-t with the ya changed into ā, and then as there is a cluster of two vowelless segments: the ā and t, its ā is elided so that it becomes rama-t (cf. Åkesson, Ibn Mas′ūd 326: fol. 32a).
The procedure is the same concerning the dual of the 3rd person of the fem. as the one of the verb with 3rd radical \( w \). An example is \( \text{ramaya-t(a)ā} \) that becomes \( \text{ram(a)ā-t(a)ā} \) and then \( \text{rama-t(a)ā} \). Some people however who use a defective dialectal variant maintain the \( ā \) and say \( \text{ram(a)ā-t(a)ā} \) instead (cf. ibid 56: fols. 5a-5b, Zamaḥšarī 154, Ibn Yaʿīš, IX, 27-29, Wright, II, 89, Åkesson, Conversion 28).

7.5.3. The persons in the perfect to which the vowelled agent pronoun is suffixed to: the sequence of the 3rd vowelless weak radical preceded by a fatha: the retaining of the \( w \) or \( y \):

In the forms of the perfect in which the vowelled agent pronouns are suffixed to, e.g. the -\( tu \) of the 1st person of the sing., the -\( n(a)ā \) of the 1st person of the pl., the -\( ta \) of the 2nd person of the masc. sing., the -\( tum \) of the 2nd person of the masc. pl., the -\( na \) of the 3rd person of the fem. pl., etc., the 3rd vowelless radical \( w \) or \( y \) is maintained.

An example of a verb with 3rd radical \( w \) is \( \text{gazaw-tu} "I attacked /1st person of the sing."}, \( \text{gazaw-n(a)ā} "/1st person of the pl.}", \( \text{gazaw-ta} "/2nd person of the masc. sing.}", \( \text{gazaw-tum} "/2nd person of the masc. pl.}", \( \text{gazaw-na} "/3rd person of the fem. pl.}", etc.

An example of a verb with 3rd radical \( y \) is \( \text{ramay-tu} "I threw /1st person of the sing."}, \( \text{ramay-n(a)ā} "/1st person of the pl.}", \( \text{ramay-ta} "/2nd person of the masc. sing.}", \( \text{ramay-tum} "/2nd person of the masc. pl.}", \( \text{ramay-na} "/3rd person of the fem. pl.}", etc.

The reason of the maintaince of the \( w \) or \( y \) in these forms is that the glide is made vowelless on account of the suffixation of the vowelled pronoun suffix of the agent, and thus is preceded
by a fatha. The sequence of the vowelless glide preceded by a fatha has in most cases its glide retained (cf. par. 9.1.1.).

7.5.4. The 3rd person of the masc pl. of the perfect of the conjugation fa'ala: the sequence of the 3rd radical w or y vowelled by a damma (on account that it is followed by the vowelless ā / w marker of the pl.), and preceded by a fatha: the change of the wu or yu into an ā and the elision of the ā:

The verb with 3rd radical w or y of the conjugation fa'ala that occurs in the 3rd person of the masc. pl., has the vowelless agent pronoun marking the pl., namely the -ū, suffixed to it, and hence has its 3rd radical vowelled with a damma. The vowelled 3rd radical w or y that is preceded by a fatha is changed into an ā (cf. par. 9.1.4.) and the ā is then elided.

An example of a verb with 3rd radical w is ǧazaw(u)-ū that becomes ǧaza-w "they attacked". The procedure is the following: ǧazaw(u)-ū / ǧazaw(u)-w with the 3rd radical w vowelled by a damma and preceded by a fatha becomes ǧaz(ā)ā-w after that the w(u) is changed into an ā. As there is a cluster of the vowelless ā and w in it, the ā is elided so that it becomes ǧaza-w.

An example of a verb with 3rd radical y is ramay(u)-w that becomes rama-w "they threw" (cf. Åkesson, Ibn Mas'ūd 326: fol. 32a). The procedure is the following: ramay(u)-w with the 3rd radical y vowelled by a damma and preceded by a fatha becomes ram(ā)ā-w after that the y(u) is changed into an ā. As there is a cluster of the vowelless ā and w in it, the ā is elided so that it becomes rama-w.
7.5.5. The 3rd person of the masc pl. of the perfect of a verb with 3rd radical y of the conjugation fa'ila: the sequence of the 3rd radical y vowelled by a đamma (on account of the vowelless ʿu / w marker of the pl. following it), and preceded by a kasra: the transfer of the đamma before the y and hence the change of the kasra into a đamma, the elision of the y and the lengthening of the đamma into ʿu according to a theory, or the elision of the y's đamma, the elision of the y and the change of the kasra into a đamma according to another theory:

In the case of the 3rd person of the masc. pl. of the verb with 3rd radical y of the conjugation fa'ila, e.g. raḍiya "to consent" to which the vowelless agent pronoun namely the -ū, is suffixed to, namely raḍiy(u)-ū, the 3rd radical y is elided (for discussions see Wright, II, 89) resulting in raḍi(u)-ū, except that the 2nd radical ʿa becomes vowelled with a đamma, namely raḍ(u)-ū, to hinder the combination of the đamma followed by the kasra (cf. Åkesson, Ibn Mas'ūd 326: fol. 32a), which is deemed as heavy, and also so that the đamma accords with the suffixed ʿu (cf. Daqr, Mu'ğam 390-391).

The phonological procedure is carried out by eliding the 3rd weak radical and changing the vowel of the 2nd radical into another. There exist two different theories concerning the phonological procedure resulting in the vowelling of the 2nd radical by a đamma.

According to the theory of Ibn Ġinnī, Munṣīf II, 126, raḍiy(u)-ū with the 3rd radical y vowelled by a đamma and preceded by a kasra becomes raḍuy-ū after that the đamma of the y is shifted to the segment preceding it, the ʿa, for the sake of alleviation, which implies that the ʿa's kasra is changed into a đamma. As there is in it a cluster of a vowelless y and ʿu, the y is elided so that it becomes raḍ(u)-ū.
According to the theory of Ibn Mas'ūd (cf. Åkesson, *Ibn Mas'ūd* 286: fol. 28b), there does not forecome any transfer of the đamma of the ū of *raḍiy(u)-ū* to the segment before it, but the đamma is however elided for the sake of alleviation, namely *raḍiy-ū*, then the vowelless ū is elided to hinder the cluster of two vowelless segments, the ū and the ū, namely *raḍi-ū*, and then the ū's kasra is changed into a đamma resulting in *raḍ(u)-ū*.

### 7.5.6. The persons in which no suffix is attached to the imperfect: the sequence in which the glide is vowelled by the đamma of the indicative and preceded by a vowel: the elision of the đamma:

In the cases of the verb with 3rd *w* or *y* radical in the persons to which no suffix is attached to, as the 1st person of the sing., e.g. *'ag̣ẓuẉu* "I attack" with 3rd radical *w*, *'aṛmiyu* "I throw" with 3rd radical *y*, the 1st person of the pl., e.g. *naḡ̣zẉu* "we attack", *naṛmiyu* "we throw", the 2nd person of the masc. sing., e.g. *taḡ̣zẉu* "you attack", *tarmiyyu* "you throw" and the 3rd person of the fem. sing., e.g. *taḡ̣zẉu* "she attacks", *tarmiyyu* "she throws", the đamma of the indicative that vowelles the 3rd radical is elided because it is considered as heavy on the *w* or *y* (cf. Åkesson, *Ibn Mas'ūd* 326: fol. 32b and this study par. 9.1.7.). I illustrate the phonological changes as follows:

Concerning the verb with 3rd radical *w*, I take up the case of *yaḡzẉu* which has the *w* vowelled by a đamma and preceded by one, that becomes *yaḡzẉu > yaḡzẉ(u)ū* after the elision of the đamma and the assimilation of the *w* to the đamma resulting in the lengthened *w*: ū.

Concerning the verb with 3rd radical *y*, I take up the case of *yaṛmiyyu* which has the *y* vowelled by a đamma and preceded by
a kasra, which becomes $yarmiy > yarm(i)î$ after the elision of the ɗamma and the assimilation of the $y$ to the kasra resulting in the lengthened $y: î$.

7.5.7. The duals of the imperfect: the sequence in which the glide is vowelled by a fatḥa and preceded by a vowel: the glide’s retaining:

The weak radical of the verb with 3rd radical $w$ or $y$ is maintained in the cases of the duals of the 2nd persons, e.g. $tağzuw(a)-âni$ "you raid /2nd dual", $tarmiy(a)-âni$ "you throw /2nd dual" and the 3rd persons of the pl., e.g. $yağzuw(a)-âni$ "/3 masc. dual" and $yarmiy(a)-âni$ "/3 masc. dual". As for the reason of its retaining, it is because the fatḥa that vowels the glide and precedes the infix $-â$ of the dual is counted as light (cf. Åkesson, Ibn Mas'ūd 326: fol. 32b).

7.5.8. The 2nd person of the fem. sing. of the imperfect of a verb with 3rd radical $y$: the sequence in which the 3rd radical $y$ is vowelled by a kasra and is followed by the vowelless $î$ marker of the fem. sing.: the elision of the vowel of the $y$ together with the $y$:

The underlying form of the 2nd person of the imperfect sing. of a verb with 3rd weak radical $y$, e.g. $ramaya$ "to throw" is $tarmiy(i)-îna$ "/2 fem. sing.". The phonological changes are carried out in the following manner (cf. Åkesson, Ibn Mas'ūd 286: fol. 28b): $tarmiy(i)-îna$ with the 3rd radical $y$ vowelled by a kasra and preceded by one becomes $tarmiy-îna$ after the elision of the kasra of the 3rd weak radical $y$ due to the heaviness of the combination. As there is in it a cluster of two vowelless segments: the $y$ and the $î$, the 3rd radical $y$ is elided so that it becomes $tarm(i)-îna$. 
This elision of the weak 3rd radical is usual in the defective verb in which the agent pronoun of the 2nd person of the fem. sing. of the imperfect, -īna, is suffixed to (cf. Wright, II, 89, Daqr, Muṯğam 391).

7.5.9. The 2nd and 3rd persons of the masc. pl. of the imperfect of a verb with 3rd radical y: the sequence in which the 3rd radical y is vowelled by a ẓamma, preceded by a kasra and followed by the vowelless ū marker of the masc. pl.: the elision of the ẓamma of the y together with the y and the change of the kasra into a ẓamma:

The underlying form of the 2nd person of the imperfect sing. of a verb with 3rd weak radical y, e.g. ramaya "to throw" is tarmiy(u)-ūna "/2 masc. pl." and of the 3rd person of the masc. pl. yarmiy(u)-ūna "/3 masc. pl." The phonological changes in them both are carried out by eliding the ẓamma of the 3rd weak radical y due to the heaviness of the combination, namely tarmiy-ūna and yarmiy-ūna. As there results a cluster of two vowelless segments: the y and the ū, the y is elided and then the kasra is changed into a ẓamma to prevent that the ū is changed into a y due to its sukūn and the influence of the kasra preceding it, so they became tarm(u)-ūna and yarm(u)-ūna.

7.5.10. Form IV and other derived forms of the perfect of verbs with 3rd w radical to which the vowelled agent pronoun is suffixed to: the sequence of the 3rd vowelless weak radical preceded by a fatḥa: the change of the w into a y:

An example of a Form IV of a verb with 3rd radical w is ʾaḡzaw-tu that occurs in the perfect with the pronoun of the agent suffixed to it, which becomes ʾaḡzay-tu "I raided". The
procedure is the following: ʼaḡzaw-tu with the vowelless 3rd radical ʼw preceded by a fatḥa becomes ʼaḡzay-tu after that the ʼw is changed into a ʼy.

This change of the ʼw into a ʼy is on the analogy of the one that is carried out in its imperfect yuḡziwu > yuḡz(i)yu > yuḡz(i)ʼi "he raids" (cf. Åkesson, Ibn Masʿūd 282: 27a; and for discussions see 7.5.11.).

Some other examples of derived forms in which this phonological change is carried out on the analogy of the one that is carried out in their imperfects, are Form II ʼgazzawa that becomes ʼgazzaya and then ʼgazz(a)ā [with final alif maqṣūra] "to raid" and Form X ʼistarḍawa that becomes ʼistarḍaya and then ʼistarḍ(a)ā "to consent" (cf. Wright, II, 91).

7.5.11. Form IV and other derived forms of the imperfect of the verbs with 3rd w radical: the sequence of the 3rd vowelled weak radical preceded by a kasra: the change of the ʼw into a ʼy:

An example of a Form IV of a verb with 2nd radical ʼw in the imperfect is yuḡziwu in which the vowelled ʼw is preceded by a kasra which is why it is changed into a ʼy, namely yuḡz(i)yu that becomes yuḡz(i)ʼi "he raids". The procedure is the following: yuḡziwu with the vowelless 3rd radical ʼw preceded by a kasra becomes yuḡz(i)yu after that the ʼw is changed into a ʼy. As in it the ʼy is preceded by a kasra and vowelled by a ʼdamma, the ʼy’s ʼdamma is elided and the ʼy is assimilated to the kasra resulting in the lengthened ʼy: ʼi, so that it becomes yuḡz(i)ʼi.

Some other examples of derived forms in which this phonological change is carried out are Form II yuḡazziwu that becomes yuḡazziyu "he raids" and then yuḡazz(i)ʼi and Form X yastardiwu that becomes yastardiyu and then yastard(i)ʼi.
7.5.12. The active participle of the verb with 3rd radical y: the sequence of the vowelled y preceded by a kasra in the definite and indefinite forms: the elision of the vowel of the y in the definite form, and the elision of the vowel together with the 3rd radical y in the nominative and genitive cases with the tanwīn replacing the kasra of the 2nd radical in the indefinite form:

The active participle’s form of verbs with w and y 3rd radical is f(a)āfīlun. An example of an active participle with 3rd radical y in the definite form in the underlying form al-r(a)ām(i)yu "the one who throws" that becomes al-r(a)ām(i)ī in the cases of the nominative, accusative and genitive with the vowelless ī, because of the dislike of vowelling the y after the kasra. Its underlying form as an indefinite noun is r(a)āmiyun for the nominative and r(a)āmiyin for the genetive. The 3rd radical together with the vowel is elided and the tanwīn replaces the kasra of 2nd radical, namely r(a)āmin which is used for both the nominative and the genitive (cf. Åkesson, Ibn Masʿūd 328: fol 33a, Wright, II, 90). The reason why the y is made vowelless and is then elided in both these cases is the heaviness of both the ḍāmma and the kasra vowelling it. It is not elided in the accusative r(a)āmiyan because the nunation with the fathā is considered as light.

7.5.13. The passive participle of the verb with 3rd radical y: the sequence of the vowelless infixed ū preceding the y: the change of the vowelless infixed ū into a y, the change of the ḍāmma preceding the changed y into a kasra and the assimilation of the y to the y:

The passive participle of verbs with 3rd radical y is formed according to mafṣ(u)wlun / mafṣ(u)ūlun. An example is the un-
derlying form marm(u)wyun / marm(u)ūyun that becomes marmiyyun "what is thrown" (cf. Åkesson, Ibn Mas'ūd 328: fol 33a, Howell, IV, fasc. I, 1543, de Sacy, I, 108, Wright, II, 91, Vernier, I 340-341). The procedure is the following: marm(u)wyun / marm(u)ūyun with the vowelless infixed w / ā preceding the y and preceded by a dāmma becomes marm(u)yyun after that the w is changed into a y due to the y's influence. As there is in it a heavy combination of a dāmma preceding the yā's, the dāmma is changed into a kasra so that it becomes marm(i)yyun.

7.5.14. The noun of place of the verb with 3rd radical y: the sequence of the vowelled y preceded by a kasra: the change of the kasra into a fațḥa and of the y into an alif maqṣūra:

The pattern of the noun of place of the verb with 3rd radical y is maf'alun and not maf'ilun (cf. Åkesson, Ibn Mas'ūd 88: fol. 17a, Zamaḥšarī, 104, Wright, II, 127-128, Vernier, I, 188). The reason why the kasra is changed into a fațḥa is to avoid having a vowelled y following a kasra that is deemed as heavy. Hence al-marmiyu becomes al-marm(a)ā "a place of throwing or shooting arrows", with the kasra of the m changed into a fațḥa and the y changed into an alif maqṣūra.

7.5.15. The jussive of the verb with 3rd radical w or y: the sequence of the vowelless w or y preceded by a vowel: the elision of the w or y:

As a rule the 3rd radical w or y of the verb that takes the sukūn as a marker of the jussive mood is elided (cf. Åkesson, Ibn Mas'ūd 328: fol 32b).
The reason of this elision is that the weak 3rd radical holds the same position as the vowel of the strong verb. As the strong verb's 3rd radical loses its vowel and takes the sukūn as a marker of the jussive mood, e.g. lam yadrib "he did not hit", the verb with weak 3rd radical loses its weak radical, e.g. lam yağzu that is said instead of lam yağz(u)ū "he did not attack" and lam yarmi that is said instead of lam yarm(i)ī "he did not throw".

7.6. A few remarks concerning some homonymous forms
An example that applies for both the 3rd person of the masc. sing. and the 3rd person of the fem. pl. is ya'f(u)ūna "he remits it, or they remit it /fem. pl., respectively", from ‘afl(a)ā [with final alif mamdūda] underlingly ‘afawa "to be obliterated", a verb with 3rd w radical. It is only by referring to the underlying forms of the intended persons that it possible to differenciate them from each other (cf. Åkesson, Ibn Mas‘ūd 326: fol. 32b; and for some examples of verb forms with 2nd w or y radical see par. 6.6).

The underlying form of the 3rd person of the masc. pl. is ya'fiw(u)-ūna (formed according to yaf‘ul(u)-ūna) of which the 3rd radical w vowelled by a ġamma is elided on account of the suffixation of the vowelless agent marker of the masc. pl., the ā, preceding the -na of the indicative, resulting in ya'f(u)-ūna.

The underlying form of the 3rd person of the fem. pl. is ya'f(u)w-na > ya'f(u)ū-na (formed according to yaf‘ul-na) with the 3rd radical w maintained before the suffix marker of the fem. pl., the -na.

The -na, marker of the indicative in the ending -ūna, is dropped in the 3rd person of the masc. pl. in the case of the subjunctive in the sur. 2: 237 (wa-ʔan ta‘fū ṭaqrabu li-l-taqwā)
"And the remission (of the man's half) is the nearest to righteousness" (cf. Howell, II-III, 16-17), in which \( wā-\text{an} tā'f(u)-ū \) is said instead \( wā-\text{an} tā'f(u)-ūnā \), and so as well in the case of the jussive, e.g. \( lām tā'f(u)-ū \) "you did not remit" as a marker for these moods.

The -\( na \), marker of the fem. pl., is not dropped in the sur. 2: 237 ('illā \( 3\text{an} yā'fūnā \) "Unless they remit it" (cf. Åkesson, Ibn Mas'ūd 326: fol. 32b), as the -\( na \) in \( yā'f(u)ū-na \) is not the marker of the indicative that is elided in the subjunctive mood, but the marker of the fem. pl.

7.7. Conclusion

I have presented the verb with 3rd \( w \) or \( y \) radical and some of its derivatives in this chapter. I have studied the soundness or the unsoundness of the 3rd radical.

It has been observed that the glide is sound in the persons of the perfect to which the vowelled agent pronoun is suffixed to, as it is vowelless and preceded by a fathā (cf. 7.5.3.), e.g. \( ġazaw-tu \) "I attacked /1st person of the sing." and \( ramay-tu \) "I threw /1st person of the sing.", and in the duals of the imperfect, as it is vowelled by a fathā and preceded by a vowel (cf. 7.5.7.), e.g. \( tağzuw(a)-āni, tarmiy(a)-āni \) "/2nd persons of the dual" and \( yağzuw(a)-āni \) and \( yarmiy(a)-āni \) "/3 masc. dual".

The glide is changed into an \( ā \) in the 3rd person of the masc. sing. of the perfect as it is vowelled by a fathā and preceded by a fathā (cf. 7.5.1.), e.g. \( ġazawa > ġaz(a)ā \) and \( ramaya > ram(a)ā \). The \( ā \) that is substituted for the vowelled glide is elided in the 3rd person of the fem. sing. of the perfect as it is followed by the vowelless -\( t \) marker of the fem. (cf. 7.5.2.), e.g. \( ġazawa-t > ġaz(a)ā-t > ġaza-t \) and \( ramaya-t > ram(a)ā-t > rama-t \), and in the 3rd person of the masc pl. of the perfect of the
conjugation fa'ala (cf. 7.5.4.), e.g. ḡazaw(u)-ū > ḡaz(ā)ā-w > ḡaza-w and ramay(u)-w > ram(ā)ā-w > rama-w.

The 3rd weak radical y is elided together with other phonological changes that are carried out in the 3rd person of the masc pl. of the perfect of a verb with 3rd radical y of the conjugation fa'ila (cf. 7.5.5.), e.g. raḍiy(u)-ū > raḍi(ū)-ū > raḍ(ū)-ū "they consented", in the 2nd person of the fem. sing. of the imperfect (cf. 7.5.8.), e.g. tarmiy(i)-īna > tarmiy-īna > tarm(ī)-īna "/2 fem. sing." and in the 2nd and 3rd persons of the masc. pl. of the imperfect (cf. 7.5.9.), e.g. tarmiy(u)-ūna > tarmiy-ūna > tarm(u)-ūna "/2 masc. pl." and yarmiy(u)-ūna > yarmiy-ūna > yarm(u)-ūna "/3 masc. pl." respectively.

The 3rd vowelless w radical to which the vowelled agent pronoun is suffixed to and that is preceded by a vowel is changed into a y in Form IV and in some other derived forms of the perfect (cf. 7.5.10.), e.g. ḍagzaw-tu > ḍagzay-tu, and of the imperfect, e.g. ṣuḡziwu > ṣuḡz(i)yu > ṣuḡz(i)i. The đamma of the 3rd weak radical is elided in the persons of the imperfect in which no suffix is attached to (cf. 7.5.6.), e.g. ḍaḡzuwu > ḍaḡz(u)w > ḍaḡz(ū)ū "/1st person sing." and ḍarmiyu > ḍarm(i)y > ḍarm(ī)i "/1st person sing.".

The 3rd weak radical preceded by a vowel is elided in the jussive (cf. 7.5.15.), e.g. lam yaḡz(u)ū > lam yaḡzu "he did not attack" and lam yarm(i)i > lam yarmi "he did not throw".

I shall discuss the verb that is doubly weak in the next chapter.
CHAPTER EIGHT

8. The verb that is doubly Weak

The verb that is doubly weak is named *al-lafif* "complicated, tangled".

It is divided into two classes:

1- *mafrūq*: having a 1st and 3rd weak radical, e.g. *waq(a)i* yaq(i)y "to guard, preserve".

2- *maqrūn*: having a 2nd and 3rd weak radical, e.g. *taw(a)i* yaṭw(i)y "to fold".

8.1. The conjugations of the verb with 1st and 3rd weak radical

The verb with 1st and 3rd weak radical falls into the following conjugations:

1- *faʿala yafʿilu*, e.g. *waqaya yaqiyu* that becomes after the phonological change *waq(a)i* [with final *alif maqṣūra*] yaq(i)i "to guard, preserve".

2- *faʿila yafʿilu*, e.g. *waliya yaliyu* "to be near" of which only the imperfect becomes after the phonological change yal(i)i.
3- fa‘ila yaf‘alu, e.g. wa‘giya yawgliyu of which only the imperfect becomes after the phonological change yawgli(a)ā [with final alif maqṣūra].

8.2. Examples of some derivatives of the verb with 1st and 3rd weak radical

An example of a verb with 1st and 3rd weak radical in the perfect is waq(a)ā "he guarded". It becomes yaqi in the imperfect of the indicative active. Its imperative is qi or qih, its active participle is wāqin, its maṣdar is waqyun, its perfect passive is wuqiya, its imperfect is yūqa, its passive participle is mawqiyun, its noun of place is mawqan and its noun of instrument is mīqan.

8.2.1. Remarks concerning the phonological procedures in some of its forms:

The 1st weak radical of the verb with 1st and 3rd weak radical is submitted to the same rules as the 1st weak radical of the verb with 1st radical w or y (cf. chap. 5.), and its 3rd weak radical is submitted to the same rules as the 3rd weak radical of the verb with 3rd radical w or y (cf. chap. 7.).

8.3. The conjugations of the verb with 1st and 3rd weak radical

The verb with 2nd and 3rd weak radical falls into the following conjugations:

1- fa‘ala yaf‘ilu, e.g. ṭawayya yaṭwiyu that becomes after the phonological change ṭawā [with final alif maqṣūra] yaṭwī "to fold".

2- fa‘ila yaf‘alu, e.g. qawiya yaqwayu "to be strong" of which only the imperfect becomes after the phonological change yaqwā [with final alif maqṣūra].
3- fa‘ila ya‘alū, e.g. ḥayiya yaḥyayu of which only the imperfect becomes after the phonological change yaḥyā [with final alif mamdūda].

8.4. Examples of some derivatives of the verb with 2nd and 3rd weak radical

An example of a verb with 2nd and 3rd weak radical in the perfect is ṭawā [with final alif maqṣūra] "he folded". It becomes yatwi in the imperfect of the indicative active. Its imperative is 'itwi, its active participle is ṭāwin, its maṣdar is ṭayyun, its perfect passive is ṭuwiya, its imperfect is yuṭwā, its passive participle is maṭwiyyun, its noun of place is maṭwan and its noun of instrument is miṭwan.

8.4.1. Remarks concerning the phonological procedures in some of its forms:

The 2nd weak radical of the verb with 2nd and 3rd weak radical is submitted to the same rules as the 2nd weak radical of the verb with 2nd radical w or y (cf. chap. 6.), and its 3rd weak radical is submitted to the same rules as the 3rd weak radical of the verb with 3rd radical w or y (cf. chap 7.).

8.4. Conclusion

I have discussed the verb that is doubly weak in this chapter. It has been observed that its glides are submitted to the same rules as the glides of the other classes of weak radicals: the 1st weak radical as the 1st weak radical of verbs with 1st weak radical, the 2nd weak radical as the 2nd weak radical of verbs with 2nd weak radical, and the 3rd weak radical as the 3rd weak radical of verbs with 3rd weak radical.
In the next chapter I shall generally study the soundness or the unsoundness of the glide.
CHAPTER NINE

9. The soundness or the unsoundness of the glide

Having discussed the weak verb in which one weak radical or more constitutes the form, I shall study the soundness of the glide or the phonological changes due to its unsoundness in a noun or in a verb in this chapter.

9.1. The soundness or the unsoundness of the glide: the sequences involved and the conditions

As it has been observed in the chapters treating the weak verbs, the glide can be sound or unsound. The sound glide is the one that is not subjected to any phonological change, e.g. wa'ada "to promise", in which the w remains sound on the basis that it is not preceded by any other segment (cf. par. 5.2.1.1.). By contrast to the sound glide, the unsound one implies a change in the word structure, e.g. the imperfect ya'idu underlyingly yaw'idu in which the 1st radical w is elided (cf. par. 5.2.1.3.). These changes are termed as 'i̲lâl̲, and the most common ones are that the unsound glide is made vowelless, that it is changed into another glide, that it is elided, that its vowel is shifted, or that it it-
self is shifted to the position of another segment (cf. Åkesson, *Ibn Mas'ūd* 270: fol. 25b-26a, Rāğiḥī, *Bāṣīf* 159).

The soundness of the glide or the phonological change(s) due to its unsoundness involves a sequence of two segments in which the unsound glide is the second segment and is preceded by a vowelless or by a vowelled sound segment. It goes without saying that the sequence of two vowelless segments is excluded, as it is impossible to combine two vowelless segments together.

In order to have a system of analysis that makes it possible to explore the phonological changes I propose for this study the following sequences comprising a glide preceded by a sound segment, whether strong or weak:

9.1.1. The glide is vowelless and preceded by a fāṭhā: its soundness or its change into an ā.

9.1.2. The glide is vowelled by a fāṭhā and preceded by a fāṭhā: its change into an ā.

9.1.3. The glide is vowelled by a kasra and preceded by a fāṭhā: its change into an ā.

9.1.4. The glide is vowelled by a ẓāamma and preceded by a fāṭhā: the change of the wu or yu into an ā.

9.1.5. The glide, the y, is vowelless and preceded by a ẓāamma: its change into a w.

9.1.6. The glide is vowelled by a kasra and preceded by a ẓāamma: the transfer of the kasra to the preceding segment and hence the change of the preceding segment’s ẓāamma into a kasra, the change of the w into a y or the y into an ī respectively, or the elision of the glide’s kasra and the lengthening of the ẓāamma preceding it into an ā.

9.1.7. The glide is vowelled by a ẓāamma and preceded by a vowel: the glide’s ẓāamma is elided.
9.1.8. The glide is vowelled by a fathā and preceded by a dāmma: its soundness.

9.1.9. The glide, the w, is vowelled by a fathā and preceded by a kasra: its change into a y.

9.1.10. The glide, the y, is vowelled by a dāmma and preceded by a kasra: the transfer of the dāmma before the y and hence the change of the preceding segment’s kasra into a dāmma, the elision of the y and the lengthening of the dāmma into an ā according to a theory, or the elision of the y’s dāmma together with the elision of the y and the change of the preceding segment’s kasra into a dāmma according to another theory.

9.1.11. The glide, the y, is vowelled by a kasra and preceded by a kasra: the elision of the vowel of the y together with the y.

9.1.12. The glide is vowelled by a fathā and preceded by a sukūn: the transfer of the fathā to the segment preceding it and the change of the w into an ā.

9.1.13. The glide, the y, is vowelled by a kasra and preceded by a sukūn: the transfer of the kasra to the segment preceding it and the change of the y into an ī.

9.1.14. The glide is vowelled by a kasra and preceded by a vowelless ā: the change of the wi or yi into ʔi.

9.1.15. The glide, the w, is vowelled by a dāmma and preceded by a sukūn: the transfer of the dāmma to the segment preceding it and the change of the w into ā.

9.1.16. The glide, the y, is vowelled by a dāmma and preceded by a sukūn: the transfer of the dāmma to the vowelless segment preceding it, the change of the dāmma into a kasra and the change of the y into ī.

9.1.17. The glide, the w or y, is vowelless and preceded by a kasra: its change into a y or ī respectively.

9.1.18. The transposition of segments in some nouns.
It shall be remarked concerning these sequences that some of them are affected by a change or a series of changes due to the unsoundness of the glides in them whereas others are not.

There exist as well some conditions (cf. Howell, IV, fasc. I, 1237 sqq. who discusses eleven conditions, Bohas/Kouloughli, Linguistic 85-86 who discuss three) that are to be followed if a phonological change is carried out due to the unsoundness of the glide. I can mention seven common ones here:

1 - the glide should be in a verb or in a noun of the verbal form of the measure faʿal. This is why the phonological change is not carried out if the pattern has the tāʿ marbūta or the alif maqṣūra suffixed to it. Some examples are ḥawakatun "weavers" that did not become ḥ(a)akhirun and Ṣawar(a)ā "Ṣawar(a)ā, name of a water" that did not become Ṣ(a)ār(r)(a)ā (for discussions see 9.1.2.2.1.: 1).

The phonological change is not either carried out if the word is formed according to a certain form, and hence is not formed according to faʿal. Some examples are ḡadwalun "a rivulet" that is formed according to faʿwalun and miqwalun "loquacious, eloquent" and miḥyaṭun "a needle" that are formed according to the contracted form mifʿalun of mifʿ(a)alun (for discussions see 9.1.12.1.: 1).

2 - The glide should not be vowelled by a vowel that is not supplied by the basic form. An example is daʿaw(u) l-qawma (دعوًا السُّمَمَ) "they called for the people" in which the sequence w(u) is retained because the u is a vowel of juncture given to the w to avoid the cluster of the underlying vowelless w of daʿaw (دَعَوًا) with the vowelless l- following the wašla in the definite article prefixed to the second word l-qawma (for discussions see 9.1.4.1.: 1).
Another example is *al-dalwu* "the bucket" in which the *w* remains sound as its vowel marks the declension in a certain sentence (cf. 9.1.15.1.:1) and *al-ramyu* "the throwing" in which the *y* remains sound for the same reason (for discussions see par. 9.1.16.1.:1).

3 - The fatha or the kasra preceding the glide is ruled by the sukūn of another form. An example with the fatha vowelling the *w* is Form VIII *'iġtawar(u)ū* "they became mutual neighbours" that did not become *'iģt(a)ār(u)ū* because it has the meaning of Form VI *taği(a)āwar(u)ū* (for discussions see 9.1.2.1.1.:2.) in which the sukūn of the *ā* prevented the sequence *wa* after it to be changed into an *ā*. Hence it is as if this *ā* rules as well the sequence *wa* in *'iġtawar(u)ū*. An example with the kasra vowel-l ing the *w* is Form I *'awira* "to be blind of one eye" that did not become *'(a)āra*, because it is associated to Form IX *'iwarra*, in which the sukūn of the consonant *c* hindered any change to affect the sequence *wa* (for discussions see 9.1.3.1.:1.). Hence it is as if this vowelless *c* rules as well the sequence *wi* in *'awira*, and hence hinders any change to affect it.

4 - The word refers in its meaning to intensive mobility. An example is *ḥayaw(a)ānun* "animal, much life" that did not become *ḥ(a)āw(a)ānun* (for discussions see 9.1.2.2.1.:3.).

5 - The combination of two phonological changes due to the unsound glides should be avoided. An example is *ṭawaya* that becomes *ṭaw(a)ā* [with final *alif maqṣūra*] "to fold" with one phonological change, and should not result in *ṭ(a)ā(a)ā* with a second phonological change carried out in it (for discussions see 9.1.2.1.1.:1.).

6 - The form should remain unchanged to prevent that the last glide becomes vowelled by a ḍamma in the imperfect. An exam-
ple is ḥayiya "to live" that did not become ḥ( a)āya, to avoid that its imperfect becomes yah( a)āyu (for discussions see 9.1.3.1. 2).

7- The glide is meant to give clues to the base form. Some examples are qawadun "retaliation" with the wa retained that refers to the root q w d and ṣayadun "a disease in a camel’s head" with the ya retained that refers to the root s y d (for discussions see 9.1.2.2.1. : 2).

9.1.1. The glide is vowelless and preceded by a fatḥa: its soundness or its change into an ā:

The glide, the w or the y, which is vowelless and preceded by a fatḥa is mostly sound, and is therefore not changed into an ā unless in some anomalous cases. Hence the rule is the following:

-aw \rightarrow -aw
-ay \rightarrow -ay

Some examples are the verbal nouns of verbs with 2nd weak radical formed according to fa’lun, e.g. qawlun "a saying" with the 2nd radical w retained and bay’un "a selling" with the 2nd radical y retained (cf. par. 6.5.11.). Some prefer however to consider the w in qawlun as unsound and change it anomalously into an ā, i.e. q(a)ālu’n (cf. Ibn Manẓūr, V, 3779, Åkesson, Ibn Mas’ūd 282: fol. 27a), but the variant pertains to the anomalies.

The reason of the soundness of the glide is that the fatḥa preceding it, which is followed by the sukūn, is not considered as a strong vowel capable of forcing a change upon it (cf. Åkesson, Ibn Mas’ūd 282: fol. 27a).

Another case in which the weak radical is retained is the verb with 3rd radical w or y in the perfect, in which the 3rd weak radical is vowelless and precedes the vowelled agent pronoun suffix, e.g. ǧazaw-tu "I raided" and ramay-tu "I threw" respectively (cf. par. 7.5.3.).
As what concerns the case in which the vowelless \( w \) or the \( y \) preceded by a fatha is changed into an \( ā \), it can be remarked that it is carried out as the second step of a phonological change that implies at first the transfer of a vowel. This is the case of the imperfect of the verb with 2nd radical \( w \) vowelled by a fatha that occurs formed according to the conjugation \( yaf\text{al}u \), e.g. \( yahwafu > yahawfu > yah(a)āfu "he is afraid" \) (cf. par. 6.5.3.1.) and of the verb with 2nd radical \( y \), e.g. \( yahyabu > yahaybu > yah(a)ābu "he is afraid" \) (cf. par. 6.5.3.2.)

9.1.1.1. Some anomalous cases:

In spite of the fact that the \( w \) is preceded by a fatha, it can be changed into a \( y \) anomalously in some cases:

\[-aw \rightarrow -ay\]

This occurs in the derived forms of perfects of some verbs with with 3rd radical \( w \), e.g. Form II \( gazzawa \) that becomes \( gazzaya "to raid" \) and then \( gazz(a)ā \) [with final alif maqṣūra], Form IV \( "aģzaw-tu > "aģzay-tu "I raided" \) and Form X \( "istarţawa > "istarţaya > "istarţ(a)ā \) (cf. par. 7.5.10.).

The change of the \( w \) into a \( y \) in these forms is on the analogy of its change into a \( y \) in their imperfects: Form II \( yuģazziwu > yuģazziyu "he raids" \), Form IV \( yuģziwu > yuģz(i)yu > yuģz(i)ī "he raids" \) and Form X \( yastarţiwu > yastarţiyu > yastarţ(i)ī \) (cf. par. 7.5.11.) respectively.

9.1.2. The glide is vowelled by a fatha and preceded by a fatha: its change into an ā:

This sequence occurs in verbs with 2nd or 3rd weak radical and in nouns and adjectives. As I shall discuss below, the glide is changed into an \( ā \) in verbs with 2nd weak radical (cf. 9.1.2.1) and in nouns and adjectives (cf. 9.1.2.2.), and into an alif mam-
dūda in verbs with 3rd radical w or into an alif maqṣūra in verbs with 3rd radical y (cf. 9.1.2.1). The glide remains sound in some specific cases (cf. 9.1.2.1.1.).

9.1.2.1. The phonological change that is carried out in verbs:

The cases that can be mentioned are the perfects of verbs with 2nd or 3rd weak radical in the 3rd person of the masc. sing.

In the cases of verbs with 2nd weak radical, the glide, the w or the y, is vowelled by a fatha and is preceded by one, which results in its change into an ā.

-awa → -(a)ā

-aya → -(a)ā

An example of a verb with weak 2nd radical w is qawala > q(a)āla "to say" (cf. par. 6.5.1.1.: 1 and 10.1.12.1.).

An example of a verb with weak 2nd radical y is bayaca > b(a)āca "to sell" (cf. par. 6.5.1.2.: 1 and 10.1.12.2.).

In the cases of verbs with 3rd weak radical, the glide, the w or the y, is vowelled by a fatha and preceded by one, which results in its change into an alif mamduāda if the glide is a w, e.g. ḡazawa > ḡaz(a)ā "to raid" [with final alif mamduāda] (cf. par. 7.5.1.1.) or into an alif maqṣūra if the glide is a y, e.g. ramaya > ram(a)ā "to throw" (cf. par. 7.5.1.2.).

9.1.2.1.1. The soundness of the glide:

The glide remains sound in these cases that are discussed below, just to mention a few:

1- The combination of two phonological changes due to the unsound glides should be avoided.

2- The fatha preceding the glide is ruled by the sukūn of another form.
1- The combination of two phonological changes due to the unsound glides should be avoided:

An example that can introduce two phonological changes, which is forbidden, is tawaya in which the sequence ya preceded by a fatha is changed into an (a)ā, namely taw(a)ā [with final alif maqṣūra] "to fold" (cf. Åkesson, Ibn Masʿūd 284: fol. 28a). It is not allowed after this change to change the sequence wa of taw(a)ā preceded by a fatha into (a)ā that would result in t(a)āā as this would necessarily imply a cluster of two vowelless glides, the alifs: the alif mamdūda and the alif maqṣūra.

It can be remarked that the phonological change is not carried out as well in the dual of the masc. taway(a)ā "/dual" in spite of the fact that the final radical y is vowelled, and thus there is no risk in combining two vowelless segments, by analogy with taw(a)ā (cf. ibid, 284: fol. 28a). In other words taway(a)ā could have become t(a)āy(a)ā, but did not do so by analogy with taw(a)ā that did not either become t(a)āā.

2- The fatha preceding the glide is ruled by the sukūn of another form:

A factor that can hinder the change of the glide vowelled by a fatha and preceded by one into an ā, is that the fatha of the segment preceding the glide in a specific form can be influenced theoretically by the sukūn of another form which it resembles in meaning, and thus this fatha is counted as ruled by a sukūn (cf. ibid, 284: fol. 27b-28a).

This is the case of some verbs of Form VIII 'ifta'ala with 2nd radical w, that have the meaning of Form VI taf(a)ā'ala denoting the reciprocity, in which the w is counted as sound in them (cf. Sibawaihi, II, 399-401, Zamāḥsārī, 180, Ibn Ya'īš, X, 74-75, Howell, II-III, 275, IV, fasc. I, 1242-1243), and thus the
sequence *awa* in them is not changed into *(a)ā*. Some examples are Form VIII *'iğtawar(u)ū* "they became mutual neighbours" that did not become *'iğt(a)ār(u)ū* because it has the meaning of Form VI *tağ(a)āwar(u)ū*, and Form VIII *'izdawağ(u)ū* "they intermarried" that did not become *'izd(a)āğ(u)ū* because it has the meaning of Form VI *taz(a)āwağ(u)ū*. The change of the sequence *awa* into *(a)ā* is necessary otherwise, e.g. *'ihtawana* that has the meaning of Form I *h(a)āna*, which becomes *'iht(a)āna* "was unfaithful".

To be more explicit, in for instance the case of Form VIII *'iğtawara*, the fāṭha preceding the *w* is counted as being ruled by the sukūn of the vowelless *ā* preceding the *w* in Form VI *tağ(a)āwara* (cf. Åkesson, *Ibn Masʿūd* 284: fol. 28a), which is the reason why the *wa* is retained and the form did not become *'iğt(a)āra*. As a matter of fact, *'iğtawara* is associated to *tağ(a)āwara* on account of its similarity of meaning to it, and in *tağ(a)āwara*, the vowelless *ā* prevented the change of the sequence *wa* into *(a)ā*. It is then as if the vowelless *ā* of *tağ(a)āwara* rules as well the *w* of *'iğtawara*, in which the fāṭha becomes counted as a sukūn, and thus hinders any change to be carried out.

9.1.2.2. The phonological change that is carried out in nouns and adjectives:

The phonological change is carried out in the noun or adjective on the condition that the noun is formed according to the verbal form *faṣal*.

- *awa* \(\Rightarrow\) *(a)ā*
An example is *dawarun* with the 2nd radical *w* vowelled by a *fatḥa* and preceded by one that becomes *d(a)ārūn* "house" after that the *wa* is changed into an ā.

The phonological change that is carried out in this noun is not only due to the fact that its glide is vowelled by a *fatḥa* and is preceded by one, but also because it answers the condition of resembling the verbal form *faʿal* (for this condition see Åkesson, *Ibn Masʿūd* 284: fol. 27b, Bohas/Kouloughli, *Linguistic* 86). Thus no phonological change is carried out in nouns that lose their resemblance to a verbal form through the suffixation of a noun suffix (cf. 9.1.2.2.1.: 1).

9.1.2.2.1. *The soundness of the glide:*

The glide remains sound in the noun or in the adjective in the following cases that are discussed below, just to mention a few:

1- The noun or the adjective is not formed according to the verbal form *faʿal* through the suffixation of the *tāʾ marbūṭa* or the *alif maqṣūra*.

2- The glide is meant to give clues to the base form.

3- The word refers in its meaning to intensive mobility.

1- The noun or the adjective is not formed according to the verbal form *faʿal* through the suffixation of the *tāʾ marbūṭa* or the *alif maqṣūra:*

Some examples are *ḥawakatun* "weavers", which is the pl. of *ḥ(a)āʾikun* and *ḥawanatun* "traitors", which is the pl. of *ḥ(a)āʾinun* (cf. Zamaḥšarī, 181, Åkesson, *Ibn Masʿūd* 284: fol. 28a, Howell, IV, fasc. I, 1510). Both these triliterals differ from their verbs' measures *ḥawaka* "to weave" and *ḥawana* "to be-
tray" through the \( t\dot{a}' \) marbûta of feminization. This is the reason why the sequence \( wa \) is not changed into \( (a)\ddot{a} \) in them, and serves through its retaining to give indication of their base forms.

An example of a noun to which the alif maqṣūra is suffixed to is ِṢawar(a)ā "Ṣawar(a)ā, name of a water" (cf. Åkesson, Ibn Mas'ūd 284: fol. 28a), which is referred to as being the name of a water in Medīna (cf. Ibn Wallād, Maqṣūr 74). The sequence \( wa \) in it is retained and not changed into an \( ā \). An example of an adjective is hayad(a)ā "(a he-ass) shying at his own shadow because of his liveliness" (cf. Åkesson, Ibn Mas'ūd 284: fol. 28a, Howell, IV, fasc. I, 1251), that is formed according to the pattern fa'al(a)ā, in which the ya is retained.

2- The glide is meant to give clues to the base form:

An example of a noun in which the \( w \) is intended to notify of the base form is qawadun "retaliation" that refers to the root \( q\dot{w}d \), and of a noun in which the \( y \) is intended to notify of the base form is ṣayadun "a disease in a camel’s head" (cf. Zamaḥṣarī, 173, Åkesson, Ibn Mas'ūd 284: fol. 28a, Howell, IV, fasc. I, 1251) that refers to s y d. The sequence \( wa \) in qawadun is not changed into \( (a)\ddot{a} \), i.e. qa(ā)dun, in spite of its being vowelled with a faṭḥa and preceded by one, as this would cause a confusion on whether the form is from the root qawada "to lead" with the \( w \) as 2nd radical or the root qayada "to bind" with the \( y \) as 2nd radical. The same goes for the ya in ṣayadun that is not changed into \( (a)\ddot{a} \), i.e. sa(ā)dun, as this would cause a confusion on whether the form is from the root ṣawada with the \( w \) as 2nd radical, that is the base form of al-ṣ(a)ādu "the [letter] šād" or the root ṣayada "to hunt" with the \( y \) as 2nd radical.
3- The word refers in its meaning to intensive mobility:

This is the case of the noun ḥayaw(a)ānun "animal, much life" (cf. Åkesson, Ibn Mas'ūd 284: fol. 28a, Howell, IV, fasc. I, 1409) in which no phonological change is carried out so that the word corresponds in mobility to what it represents, which is a mobile animal. It occurs in the sur. 29: 64 (la-hya l-ḥayawānu) "that is Life indeed". The variant mawt(a)ānun is its opposite in meaning, and on this account it is formed according to its pattern (cf. Ibn Manẓūr, VI, 4296, Åkesson, Ibn Masʿūd 284: fol. 28a, Lane, I, 679, 682, Howell, IV, fasc. I, 1244, 1409, 1465).

9.1.3. The glide is vowelled by a kasra and preceded by a fatha: its change into an ā:

The glide that is vowelled by a kasra and preceded by a fatha is changed into an ā.

-awi → -(a)ā
-ayi → -(a)ā

The cases that can be mentioned are the perfects of verbs with 2nd weak radical in the 3rd person of the masc. sing. of the conjugation faʿila.

An example of a verb with weak 2nd radical w vowelled by a kasra is ḥawifa > ḥ(a)āfa "to fear" (cf. par. 6.5.1.1.: 3).

An example of a verb with 2nd radical y vowelled by a kasra is hayiba > ḥ(a)āba "to be afraid" (cf. par. 6.5.1.2.: 2).

9.1.3.1. The soundness of the glide:

The glide remains sound in these cases that are discussed below, just to mention a few:

1- The fatha preceding the glide is ruled by the sukūn of another form.
2- The form should remain unchanged to prevent that the last glide becomes vowelled by a āamma in the imperfect.

1- The fatḥa preceding the glide is ruled by the sukūn of another form:

The same procedure is applied as the one that concerns the verb with the 2nd radical vowelled by a fatḥa and preceded by one, e.g. Form VIII ʾiṯtawar(u)ū "they became mutual neighbours" in which the w remains sound as the fatḥa preceding it is ruled by the sukūn of the ā of Form VI taḡ(a)āwar(u)ū (cf. 9.1.2.1.1.: 2).

An example with the glide vowelled by a kasra and preceded by a fatḥa is Form I ʾawira "to be blind of one eye". In this example the sequence wi did not become a(ā) as expected due to the influence of the fatḥa preceding it, which would result in ʾ(a)āra, because the verb is associated to Form IX ʾiṭwarra with which it shares the same meaning. As the sukūn of the consonant ʾ in ʾiṭwarra hinders any change to affect the sequence wa, it is as if this sukūn rules as well the ʾa in Form I ʾawira, and by doing so, hinders the change to be carried out in the sequence wi that could have resulted in ʾ(a)āra.

Another example of a verb is ḥawila "squinted", which has the meaning of Form IX ʾihwalla, and for the same reason as with ʾawira has the sequence wi unchanged (cf. Sibawaihi, II, 399, Zamahšari, 180, Howell, IV, fasc. I, 1241-1242). It can be noted that Wright, Comparative Grammar 243 was perplexed by the uncontraction in ʾawira and ḥawila, as he writes:

"I do not know why ḥawifa became hāfa, and mawita, màta, whilst ḥawila and ʾawira remained uncontracted".
2- The form should remain unchanged to prevent that the last glide becomes vowelled by a ādāma in the imperfect:

This is the case of ḥayiyya "to live" (cf. Åkesson, Ibn Masʿūd 284: fol. 28a) in which the sequence yi is not changed into (a)ā due to the influence of the fatḥa preceding it, namely ḥ(a)āya, to avoid that its imperfect becomes yah(ā)(ā)yu, with the disliked combination of the ḍamma following the y that is deemed as heavy (cf. Åkesson, Conversion 28). Instead the imperfect is yahy(ā)ā [with final alif maqṣūra].

9.1.4. The glide is vowelled by a ādāma and preceded by a fatḥa: the change of the wu or yu into an ā:

The w or the y that is vowelled by a ādāma and preceded by a fatḥa is changed into an ā. Thus:

- awu → -(a)ā
- ayu → -(a)ā

This sequence occurs in the verb with 2nd radical w in the perfect formed according to the conjugation faʿula, e.g. ṭawula that becomes ṭ(a)āla "to become long" (cf. par. 6.5.1.1.: 2), and in the verb with 3rd radical w or y of the conjugation faʿala that occurs in the 3rd person of the masc. pl., e.g. ǧazaw(u)-ū / ǧazaw(u)-w that becomes at first ǧaz(ā)ā-w (cf. par. 7.5.4.) with this change, then ǧaza-w "they attacked" with the elision of the ā, and ramay(u)-ū / ramay(u)-w that becomes at first ram(ā)ā-w (cf. ibid) with this change, then rama-w "they threw" with the elision of the ā.

9.1.4.1. The soundness of the glide:

The glide remains sound in this case:

1- The glide should not be vowelled by a vowel that is not supplied by the basic form.
1- The glide should not be vowelled by a vowel that is not supplied by the basic form:

The *wu* that is preceded by a fatḥa is not changed into an ā if the damma of the *w* is not supplied by the basic form (for this condition see Åkesson, *Ibn Masʿūd* 284: fol. 27b, Bohas/ Kouloughli, *Linguistic* 85), but by an external factor.

This is the case of the verb with 3rd radical *w* *daʾawa* "to call" that occurs in the 3rd person of the masc. pl. *daʾaw* Ālāğa with *alif maddūda*, followed by a noun to which the -l of the definite article following the waṣla, is prefixed to, e.g. *daʾaw(u) l-qawma* دَعَوَا الْقُوْمْ "they called for the people" (cf. Åkesson, *Ibn Masʿūd* 284: fol. 28a). As remarked the suffixed pronoun of the agent, namely the *w* of the pl. of *daʾaw*, is underlyingly vowelless, but becomes vowelled by the damma that is a vowel of juncture (for discussions concerning the vowel of juncture see Roman, *Étude II*, 747-755), to avoid the cluster of two vowelless segments, namely the vowelless *w* that is the pronoun of the agent of دَعَوَا and the vowelless *l*- following the waṣla of the definite article prefixed to the second word *l-qawma*. As the damma in *daʾaw(u)* is not supplied by the basic form, but is due to an external reason that has to do with the second word following it, the *wu* of *daʾaw(u)* remains sound and is not changed into an ā.

9.1.5. The glide, the *y*, is vowelless and preceded by a damma: its change into a *w*.

The weak vowelless *y* that is preceded by a damma is usually changed into a *w* (cf. Åkesson, *Ibn Masʿūd* 282: 27a, Wright, II, 80). Thus:

\[-uy \rightarrow -uw > (u)ā\]
This sequence occurs in verbs with 1st radical \( y \) in the imperfect of the passive voice of Form I \( yuf'alu \), e.g. \( yuysaru \) "is pleased" that becomes \( yuwsaru > y(u)u\text{-}sar\)u, the active voice of Form IV of the imperfect \( yuf'iliu \), e.g. \( yuysir\)u that becomes \( yuwsir\)u > \( y(u)u\text{-}sir\)u "is well off" (cf. par. 5.4.1.1.; for the substitution see par. 10.1.9.2) and the active participle of Form IV \( muf'ilun \), e.g. \( muysirun \) that becomes \( muwsirun > m(u)u\text{-}sir\)un "is prosperous" (cf. par. 5.4.1.1.; for the substitution see par. 10.1.9.2).

9.1.6. The glide is vowelled by a kasra and preceded by a ḍamma: the transfer of the kasra to the preceding segment and hence the change of the preceding segment’s ḍamma into a kasra, the change of the \( w \) into a \( y \) or the \( y \) into an \( ï \) respectively, or the elision of the glide’s kasra and the lengthening of the ḍamma preceding it into an û:

The \( w \) that is vowelled by a kasra and preceded by a ḍamma is considered as unsound and gives hand to two possibilities.

1st possibility: -uwi with the \( w \) vowelled by a kasra and preceded by a ḍamma becomes -iw after that the \( w \)’s kasra is shifted before the \( w \) and hence the ḍamma is changed into a kasra. As in it the vowelless \( w \) is preceded by a kasra, the \( w \) is changed into an ï: lengthened ï, namely -iy/(i)ï.

An example of this sequence is found in a verb with 2nd radical \( w \) in the passive voice formed according to \( fu'ila \), e.g. quwila "it was said" (cf. par. 6.5.13.1.). According to this theory quwila > qiwla > q(i)yila > q(i)ïla can be mentioned.

2nd possibility: -uwi with the \( w \) vowelled by a kasra and preceded by a ḍamma becomes -uw after that the \( w \)’s kasra is elided for the sake of alleviation. As in it the vowelless \( w \) is preceded by a ḍamma, the \( w \) is changed into an û: lengthened û so that it
becomes -(u)ū. According to this theory the example quwila > quwla > q(u)ūla can be mentioned.

The y that is vowelled by a kasra and preceded by a ḍamma is also considered as unsound. The two possibilities concerning the phonological changes that can be carried out are the following:

1st possibility: -uyi with the y vowelled by a kasra and preceded by a ḍamma becomes -iy after that the y's kasra is shifted before the y and hence the ḍamma is changed into a kasra. As there is in it a vowelless y preceded by a kasra the y is changed into an ī: lengthened ī, so that it becomes (i)ī.

An example of this sequence is found in a verb with 2nd radical y in the passive voice formed according to fuṣila, e.g. buyīʿa "it was sold" (cf. par. 6.5.13.2.). According to this theory, the changes are the following: buyīʿa > biyīʿa > b(i)īʿa.

2nd possibility: -uyi with the y vowelled by a kasra and preceded by a ḍamma becomes -uy after that the y's kasra is elided for the sake of alleviation. As there is in it a vowelless y preceded by a ḍamma, the y is changed into a w, so that it becomes -uw. As there is in it a vowelless w preceded by a ḍamma, the w is changed into an ā: lengthened ā, so that it becomes -(u)ū. According to this theory the example buyīʿa > buyīʿa > b(u)ūʿa can be mentioned.

9.1.7. The glide is vowelled by a ḍamma and preceded by a vowel: the glide's ḍamma is elided:

The glide that is vowelled by a ḍamma and preceded by a vowel is considered as unsound, and the phonological change that is carried out in this sequence results in the elision of the
gslide's damma to alleviate, because the combination is deemed as heavy.

If the glide is a w vowelled by a damma and preceded by one, the procedure is the following: -uwu with the w vowelled by a damma and preceded by one becomes -uw > -(u)û after that the damma is elided and the w is changed into an û: lengthened û. An example of such a sequence is found in the verb in the imperfect of the 3rd person of the masc. sing. yagzuwu "he attacks" that becomes yagzuw / yagz(u)û (for discussions see 7.5.6.).

If the glide is a y vowelled by a damma and preceded by a kasra, the procedure is the following: -iyu with the y vowelled by a damma and preceded by a kasra that becomes iy > (i)î after that the damma is elided and the y is changed into an î: lengthened î.

An example of such a sequence is found in the verb in the imperfect of the 3rd person of the masc. sing. yarmiyu "he throws" that becomes yarmiy > yarm(i)î (for discussions see 7.5.6.).

9.1.8. The glide is vowelled by a fathâ and preceded by a damma: its soundness:

The glide that is vowelled by a fathâ and preceded by a damma remains sound. The reason of its soundness is the lightness of the fathâ (cf. Åkesson, Ibn Mas'ûd 286: fol. 28b).

- uwa \rightarrow -uwa
- uya \rightarrow -uya

An example in which such a sequence is found is a verb with 3rd radical w that occurs in the subjunctive of the 3rd person of the masc. sing., e.g. lan yad'ûwa "he shall not call", in which the
3rd radical \( w \) of the verb is vowelled by the fatha, as a marker of the subjunctive, and is preceded by a damma. This \( w \) remains sound in spite of the fact that it is preceded by a damma, which could have resulted in the assimilation of the \( w \) to the damma and thus in the lengthened \( w: \ddot{u} \), i.e. \( lan \ yad^{c}(u)\ddot{u} \). The reason why the phonological change is not carried out in it is that the fatha is considered as light on the \( w \) (for other examples see Ibn Ġinnî, \textit{Munṣif II}, 114). So there is no need to alleviate more by having \( lan \ yad^{c}(u)\ddot{u} \) instead of \( lan \ yad^{c}uwa \). We can remark as well that if this was to occur the subjunctive would be mixed up with the jussive.

In line with this theory that the glide vowelled by a fatha and preceded by a damma remains sound, the \( w \) vowelled by a fatha and preceded by a damma in \textit{nuwamatun} "one who sleeps much" and the \( y \) vowelled by a fatha and preceded by a damma in \textit{‘uyabatun} "one who reproaches people much" (cf. Zamaḥšarî, 181, Ibn Ya’îš, X, 82-83, Åkesson, \textit{Ibn Mas‘ūd} 286: fol. 28b) remain sound.

9.1.9. \textbf{The glide, the \( w \), is vowelled by a fatha and preceded by a kasra: its change into a \( y \):}

The \( w \) that is vowelled by a fatha and preceded by a kasra is usually changed into a \( y \).

\[-iwa \quad \Rightarrow \quad -iya\]

An example in which such a sequence occurs is the active participle \textit{dā‘iwatun} "the one who invites /fem." (cf. Åkesson, \textit{Ibn Mas‘ūd} 286: fol. 28b) with the 3rd radical \( w \) from the verb \textit{da‘awa} "to call", which occurs in the fem. sing., and thus with the fatha preceding the tā‘ marbūṭa. Hence \( d(a)ā‘iwatun \) with the 3rd radical \( w \) vowelled by a fatha and preceded by a kasra becomes \( d(a)ā‘iyatun \) after the change of the \( wa \) into a \( ya \).
reason why the w vowelled by a fatḥa is changed in this sequence into a y is the influence of the kasra preceding it and the faintness of the nature of the fatḥa.

9.1.9.1. Some anomalous cases:

An anomalous case in which the w is changed into a y is siw(a)āṭun that becomes siy(a)āṭun "whips". The phonological change is carried out in it in spite of the fact that it is not formed according to the verbal pattern faʿal (for the conditions see 9.1.). The reason of the unsoundness of the w(a) in it is that it is compared to the vowelless w of its sing. sawṭun (cf. Åkesson, Ibn Masʿūd 284: fol. 28a). Zamāḥṣarī, 182 compares the vowelless w as well with the vowelless alif of d(a)ārun "house". Being then compared with a vowelless segment, the vowelled w in siw(a)āṭun is treated as being so, and as it is preceded by a kasra it is changed into the y, namely siy(a)āṭun (cf. Howell, IV, fasc. I, 1264-1265).

Another example is the broken pl. diw(a)ārun with 2nd radical w that becomes diy(a)ārun (cf. Åkesson, Ibn Masʿūd 284: fol. 28a, Howell, IV, fasc. I, 1264). One of the reasons why the phonological change is carried out in it is so that it is on the analogy of the change that is carried out in its sing. dawarun that becomes d(a)ārun in which the wa is changed into an ā because the w is vowelled by a fatḥa and preceded by one (cf. Åkesson, Ibn Masʿūd 284: fol. 28a, this study par. 10.1.8.2.). Another example is the verbal noun Form I qiw(a)āmun that becomes qi(y(a)āmun "standing" (cf. par. 10.1.8.2.). The reason of this change according to Ibn Masʿūd (Åkesson, Ibn Masʿūd 284: fol. 28a), is that there should be an analogy with the change that is carried out in its verb qawama that became q(a)āma with the wa changed into an ā.
9.1.10. The glide, the y, is vowelled by a ḍamma and preceded by a kasra: the transfer of the ḍamma before the y and hence the change of the preceding segment’s kasra into a ḍamma, the elision of the y and the lengthening of the ḍamma into an ū according to a theory, or the elision of the y’s ḍamma together with the elision of the y and the change of the preceding segment’s kasra into a ḍamma according to another theory:

An example in which the y is vowelled by a ḍamma and preceded by a kasra is the verb with 3rd weak y raḍiyə "to be pleased" in the perfect of the 3rd person of the masc. pl. to which the suffix marking the pl., the ū, is attached to, namely raḍiy(ū)-ū "they were pleased /masc. pl." (cf. Åkesson, Ibn Mas'ūd 286: fol. 28b).

There are two theories concerning the phonological changes. The first theory is that -iy(ū)-ū with the y vowelled by a ḍamma and preceded by a kasra becomes -uy-ū after that the y’s ḍamma is shifted backwards, and hence the preceding segment’s kasra is changed into a ḍamma. As there is in it a cluster of two vowelless segments, the y and ū, the y is elided so that it becomes (u)-ū.

This procedure goes back to Ibn Ġinnī’s theory (cf. Ibn Ġinnī, Munṣif II, 126). An example that he mentions is raḍiy(ū)-ū > raḍuy-ū > raḍ(u)-ū (for discussions see par. 7.5.5.).

According to Ibn Mas'ūd (cf. Åkesson, Ibn Mas'ūd 286: fol. 28b) the phonological changes are the following:

raḍiy(ū)-ū > raḍiy-ū > raḍi-ū > raḍ(u)-ū (for discussions see par. 7.5.5.).

The second theory is that -iy(u)-ū with the y vowelled by a ḍamma and preceded by a kasra becomes iy-ū after that the y’s ḍamma is elided for the sake of alleviation. As there is in it a
cluster of a vowelless y and ā, the y is elided so that it becomes i-ā. As the vowelless ā is preceded by a kasra, the kasra is changed into a ẓamma so that it becomes (u)-ā.

9.1.11. The glide, the y, is vowelled by a kasra and preceded by a kasra: the elision of the vowel of the y together with the y:

The phonological changes involve the elision of the y’s kasra and the elision of the y. Thus I illustrate this with the following: the sequence iy(i)-ī that occurs in the 2nd person of the fem. sing. of a verb with the 3rd radical y vowelled by a kasra and preceded by one becomes iy-ī after that the y’s kasra is alleviated. As there is in it a cluster of two vowelless segments: the y and the ī, the 3rd radical y is elided so that it becomes (i)-ī.

This sequence occurs in the verb in the imperfect of the 2nd person of the fem. sing. tarmiy(i)īna that becomes tarm(i)-īna "you throw" The phonological changes are the following: tarmiy(i)-īna > tarmiy-īna > tarm(i)-īna (cf. par. 7.5.8.).

9.1.12. The glide is vowelled by a fatḥa and preceded by a sukūn: the transfer of the fatḥa to the segment preceding it and the change of the w into an ā:

The phonological changes involve the transfer of the glide’s fatḥa to the vowelless segment preceding it and the change of the vowelless w or y into an ā on account of the influence of the fatḥa preceding it.

Thus if the glide is a w, the procedure is the following: - "wa (" stands for vowelless segment) with the w vowelled by a fatḥa and preceded by a sukūn becomes -aw after that the w’s fatḥa is shifted to the vowelless segment preceding it. As in it the w is
preceded by a fatha, the \( w \) is changed into an \( \ddbar \) so that it becomes \( (a)\ddbar \).

If the glide is a \( y \), the procedure is the following: - "ya with the \( y \) vowelled by a fatha and preceded by a sukun becomes -\( ay \) after that the \( y ' \)' s fatha is shifted to the vowelless segment preceding it.

Some examples in which such a sequence occurs are the verb with 2nd radical \( w \) formed according to the conjugation \( yaf'alu \) that occurs in the imperfect, e.g. \( yahwafu \) that becomes \( yahawfu \) and then \( yah(a)\ddbar fu \) "he is afraid" (cf. par. 6.5.3.1.), the imperfect of the passive voice of the verb with 2nd radical \( w \) or \( y \) formed according to \( yuf'alu \), e.g. \( yuqwalu \) that becomes \( yuqawlu \) and then \( yuq(a)\ddbar alu \) "is said" and \( yubya'\ddbar u \) that becomes \( yubay'\ddbar u \) and then \( yub(a)\ddbar \ddbar u \) "is sold" (cf. par. 6.5.14.) and the noun of place of a verb with 2nd radical \( w \), e.g. \( maqwalun \) that becomes \( maqawlun \) and then \( maq(a)\ddbar alun \) "speech" (cf. par. 6.5.15.).

9.1.12.1. The soundness of the glide:

The glide remains sound in the noun or in the adjective in the following case that is discussed below, just to mention one:

1- The noun or the adjective is not formed according to the verbal form \( fa'\ddbar al \).

1- The noun or the adjective is not formed according to the verbal form \( fa'\ddbar al \):

An example is the noun \( \ddbar gadwalun \) "a rivulet" (cf. Åkesson, \( Ibn Mas'\ddbar ud \) 286: fol. 29a, Howell, IV, fasc. I, 1524), in which the \( w \) is vowelled by a fatha and preceded by a sukun, from \( \ddbar gadala \) "to make firm".
The reason of the \( w \)'s soundness in it is that the noun is quasi-coordinate to the measure \( fa'\text{walun} \) and hence is not formed according to the verbal \( fa'\text{al} \). So the \( w \) could not be changed into an \( \ddot{a} \) after that its fat\( \ddot{h}a \) is shifted to the \( \dddot{g} \) preceding it, i.e. \( \dddot{g}ad(\ddot{a})\dddot{\ddot{a}}lun \), as this would cancel the formation.

Other examples are \( miqwalun \) that is contracted from the base form \( miqw(\ddot{a})\dddot{\ddot{a}}lun \) "loquacious, eloquent" with 2nd radical \( w \), and \( mi\dddot{h}yatun \) that is contracted from the base form \( mi\dddot{h}y(\ddot{a})\dddot{\ddot{a}}\dddot{t}un \) "a needle" (cf. Åkesson, \( Ibn \text{ Mas'\ddot{u}d} \) 288: fol. 29a) with 2nd radical \( y \). So their pattern \( mf\dddot{a}lun \) is the contracted form of \( mf(\ddot{a})\dddot{\ddot{a}}lun \).

9.1.12.2. Some anomalous cases:

An anomalous case that can be taken up, which is due to a sequence of two glides instead of a glide preceded by a consonantal segment, is the verbal noun \( kaywan(\ddot{u})\dddot{\ddot{a}}\dddot{n}atun \) (that is on the pattern \( fay'\dddot{a}l(\ddot{u})\dddot{\ddot{a}}\dddot{l}atun \), cf. Ibn Ġinnî, \( Mun\ddot{s}if II, 10 \), in which the 2nd radical \( w \) is vowelled by a fat\( \ddot{h}a \) and preceded by a vowelless \( y \). The phonological changes that are carried out are the change of the \( w \) into a \( y \) and the assimilation of the \( y \) to the \( y \) resulting in \( kay\dddot{y}an(\ddot{u})\dddot{\ddot{a}}\dddot{n}atun \) "being" (cf. par. 10.1.8.2.). Thus \( kaywan(\ddot{u})\dddot{\ddot{a}}\dddot{n}atun \) with the 2nd radical \( w \) vowelled by a fat\( \ddot{h}a \) and preceded by a vowelless \( y \) becomes \( kay\dddot{y}an(\ddot{u})\dddot{\ddot{a}}\dddot{n}atun \) after the change of the \( wa \) into a \( ya \) and the assimilation of the \( y\ddot{a}\)'s.

The base form \( kay\dddot{y}an(\ddot{u})\dddot{\ddot{a}}\dddot{n}atun \) is used mostly in poetic licence. It occurs in this verse said by al-Nah\ddot{s}alî, cited by Ibn Ġinnî, \( Mun\ddot{s}if II, 15, Ibn al-Anb\ddot{a}r\ddot{i}, In\ddot{s}\ddot{a}f Q. 115, 334, Suy\ddot{u}t\ddot{	ext{i}}, A\ddot{s}b\ddot{a}h III, 335, Ibn Manz\ddot{\ddot{u}}r, V, 3926, Howell, IV, fasc. I, 1461, Åkesson, \( Ibn \text{ Mas'\ddot{u}d} \) 300: (263):
"Yā layta ḍannā ḍammanā safīnah
ḥattā yaʿūda l-waslu kayyānīnāh".
"O would that we and the beloved were so placed that a boat
held us,
to the end that union might return in being!".

An alleviated form exists as well, namely kayn(u)ūnatun (cf. Åkesson, Ibn Masʿūd 282: fol. 27a-27b) that is from kayyan(u)ūnatun after that the 2nd y vowelled by a fatha is elided.

An analysis of kayn(u)ūnatun shows that it occurs with a y following the 1st radical, and not with a w, - in spite of the fact that it is a verbal noun of a verb with 2nd radical w namely kawana "to be". The reason of that is that it is made formed according to the verbal nouns of verbs with 2nd radical y (cf. ibid 282: fol. 27b, Wright, II, 120) on the basis that they are much more numerous. I can mention that only four words of patterns of verbal nouns with w as 2nd radical seem to occur formed according to fayc̄al(u)ūlatun (cf. Ibn Manẓūr, V, 3959, Åkesson, Ibn Masʿūd 282-284: fol. 27b): namely: 1- kayn(u)ūnatun from k(a)āna yak(u)ūnu "to be", 2- daym(u)ūmatun from d(a)āma yad(u)ūmu "to continue", 3- sayd(u)ūdatun from s(a)āda yas(u)ūdu "to rule" and 4- hayc̄(u)ūcatun from h(a)āc̄a yah(u)ūc̄u "to vomit". Some examples of verbal nouns of verbs with 2nd radical y to which kayn(u)ūnatun is formed according to, are: sayr(u)ūratun from s(a)āra yas(i)īru "to become", ġayb(u)ūbatun from ġ(a)āba yağ(i)ību "to be unconscious" and qayl(u)ūlatun from q(a)āla yaq(i)īlu "to take a midday nap".

Another anomalous example that can be taken up in which the phonological change is carried out in spite of the fact that two
phonological changes due to the unsound glides should be avoided and not combined, is the verbal noun Form IV \(iqw(a)\dot{a}mun\) (cf. Åkesson, Ibn Mas'\(\dot{u}\)d 288: fols. 29a-29b) that becomes \(iq(a)\dot{a}matun\) "performance". The changes that we observe are the following: \(iqw(a)\dot{a}mun > iq(a)\ddot{a}\dot{a}mun\) (with the forbidden combination of two vowelless \(\ddot{a}\)) > \(iq(a)\dot{a}mun\) (with the elision of one \(\ddot{a}\)) > \(iq(a)\dot{a}matun\) (with the compensation of the elided \(\ddot{a}\) by the suffixed \(\ddot{a}\) marb\(\dot{u}\)ta) (for discussions see 6.5.12.).

If I take up \(iq(a)\ddot{a}mun\) with the combination of the forbidden vowelless glides in this process, I can mention that some grammarians believed that it is the 1st \(\dot{a}\) that is substituted for the 2nd \(w\) radical vowelled by a fatha from \(iqw(a)\dot{a}mun\) that is elided, whereas others believed that it is the 2nd one which is the infixed \(\ddot{a}\) of \(if(a)\ddot{a}latun\) (cf. Ibn Ya\(\dot{\imath}\)\(\acute{s}\), VI, 58). Concerning it and its likes, Ibn \(\dot{G}\)inn\(\acute{i}\), Mun\(\dot{a}\)fif I, 291-292 remarks:

"The base forms of \(iq(a)\dot{a}matun\) "erecting", \(ih(a)\ddot{a}fatun\) "frightening" and \(ib(a)\ddot{a}natun\) "explanation" are: \(iqw(a)\dot{a}matun, ihw(a)\ddot{a}fatun\) and \(iby(a)\ddot{a}natun\). They intended to carry out a phonological change due to the unsoundness of the glide in the ma\(\ddot{a}\)dar in conformity with the phonological change that is carried out in [their verbs] \(aq(a)\ddot{a}ma\) "to erect" and \(ab(a)\ddot{a}na\) "to explain". So they shifted the fatha from the \(w\) [of \(iqw(a)\dot{a}matun\)] and from the \(y\) [of \(iby(a)\ddot{a}natun\)] to the segment preceding them [i.e. \(iqw(a)\dot{a}matun\) and \(iby(a)\ddot{a}natun\)], then they changed them [i.e the \(w\) and the \(y\) respectively] into an \(\ddot{a}\) preceding the infixed \(\ddot{a}\) of \(if(a)\ddot{a}latun\), so they became as you remark \(iq(a)\ddot{a}matun\) and \(ib(a)\ddot{a}natun\). Ab\(\dot{u}\) l-Hasan believed that the elided \(\ddot{a}\) is the 1st \(\ddot{a}\) whereas al-\(\dot{H}\)alil believed that it is the 2nd one, which is the infixed one, according to what has been presented among both their teachings -"."
9.1.13. The glide, the y, is vowelled by a kasra and preceded by a sukūn: the transfer of the kasra to the segment preceding it and the change of the y into an ī:

The phonological changes involve the transfer of the y’s kasra to the vowelless segment preceding it and the change of the y into an ī. Thus:

\[-'yi \rightarrow -iy\]

(’ stands for vowelless segment)

An example in which such a sequence occurs is the verb with 2nd radical y that is formed according to the conjugation yaf‘ilu in the imperfect, e.g. yahyi‘u > yahiy‘u > yah(i)ī‘u "he sells" (for discussions see par. 6.5.5.).

9.1.13.1. Anomalous cases:

An anomalous case due to a sequence of two glides following each other instead of a glide preceded by a consonantal segment, is mawyitun "a dead man", in which the y vowelled by a kasra is preceded by the vowelless 2nd radical w. The result is the change of the w into a y (cf. 10.1.8.2.) and the assimilation of the y to the y.

Thus mawyitun with the y vowelled by a kasra and preceded by a vowelless w becomes mayyitun after that the w is changed into a y and the yā’s are assimilated.

An alleviated form exists as well, namely maytun (cf. Åkesson, Ibn Mas‘ūd 282: fol. 27b) from mayyitun in which the 2nd y vowelled by a kasra is elided. It occurs in this verse said by an unknown poet, cited by Carter, Linguistics [Širbīnī, Āğurrūmīya] 376, Åkesson, Ibn Mas‘ūd 301: (263):

"İnnamā l-maytun man ya‘išu ka‘iban kāsifān bāluhu qalila l-rağā‘ī".
"The dead man is simply he who lives grieving, wretched his plight and small of hope".


"Laysa man māta fa-starāha bi-maytin ʿinnamā l-maytu mayyitu l-ṣāḥyāʾi′".

"He who has died, and taken his rest, is not really dead: the really dead is only the dead of the living, [i.e. is only he that is living, while his state is like that of the dead]".

9.1.14. **The glide is vowelled by a kasra and preceded by a vowelless ā: the change of the wi or yi into ʾi:**

Such a sequence occurs in the cases of active participles of verbs with 2nd radical *w* and *y* that are formed according to *f(a)āʾilun*, in which the *w* or *y* is vowelled by a kasra and preceded by the vowelless ā.

The phonological change implies the change of the wi or the yi into ʾi. I take up at first the sequence - āwi with the *w* vowelled by a kasra and preceded by an ā that becomes -āʾi after that the wi is changed into ʾi. An example is *q(a)āwilun > q(a)āʾilun* "a sayer" (cf. par. 6.5.9.1. and 10.1.1.2.:3).

Also the sequence -āyi with the *y* vowelled by a kasra and preceded by an ā that becomes -āʾi after that the yi is changed into ʾi.

An example is *b(a)āyiun > b(a)āʾiʿun* "a seller" (cf. par. 6.5.9.2 and 10.1.1.3.:2).
9.1.15. The glide, the w, is vowelled by a damma and preceded by a sukuin: the transfer of the damma to the segment preceding it and the change of the w into ā:

The phonological changes concerning this sequence are the following: -"wu (" stands for vowelless segment) with the w vowelled by a damma and preceded by a sukuin becomes -uw after that the w's damma is shifted to the vowelless segment preceding it. As the damma precedes the w, the w is changed into an ā or lengthened u: ā, so that it becomes (u)ā.

Such a sequence is found in the verb with 2nd radical w of the conjugation yaf'ulu that occurs in the imperfect, e.g. yaqwulu "he says" > yaqwulu > yaq(u)ālu (cf. par. 6.5.4.), in the imperative, e.g. ûqwul "say!" > ûqwuwl > uq(u)āl, and then after the elision of the connective hamza and the ā > qul (cf. par. 6.5.8.1.) and in the passive participle maqwuwlułun > maqw(u)ālun "what is said" > maq(u)ālun (cf. par. 6.5.6.).

9.1.15.1. The soundness of the glide:

The glide remains sound in the noun or in the adjective in the following case:

1- The glide should not be vowelled by a vowel that is not supplied by the basic form.

1- The glide should not be vowelled by a vowel that is not supplied by the basic form:

The w remains sound if it is the 3rd radical of a noun that carries the marker of the declension, and thus its vowel is not supplied by the basic form but by an external reason having to do with syntax (for this condition see 9.1. and compare the case
of *al-ramyu* "the throwing" that ends with the 3rd radical *y*, see par. 9.1.16.1.: 1). An example is *al-dalwu* "the bucket" with the 3rd radical sound *w*.

**9.1.16. The glide, the *y*, is vowelled by a ḍamma and preceded by a sukuṇ: the transfer of the ḍamma to the vowelless segment preceding it, the change of the ḍamma into a kasra and the change of the *y* into *i*:**

The phonological changes concerning this sequence are the following: "yu (" stands for vowelless segment) with the *y* vowelled by a ḍamma and preceded by a sukuṇ becomes -uy after that the *y*’s ḍamma is shifted to the vowelless segment preceding it. As the ḍamma precedes the vowelless *y*, the ḍamma is changed into a kasra so that it becomes iy. As the kasra precedes the *y*, the *y* is changed into ī or lengthened ī: ī, so that it becomes (i)ī.

Such a sequence occurs in the passive participle of the verb with 2nd radical *y* of the conjugation *yarīlu*, e.g. *yabyī‘u* "he sells", namely *maby(u)ū‘un* "sold" which becomes *mab(i)ī‘un*. The steps are *maby(u)ū‘un* > *mabuyū‘un* of which the *ū* is elided to hinder the succession of two vowelless segments resulting in *mabuy‘un* of which the *u* is changed into *i*, namely *mabiyy‘un* > *mab(i)ī‘un* of which the *i* is lengtheneded (cf. par. 6.5.7.).

**9.1.16.1. The soundness of the glide:**

The glide remains sound in the noun or in the adjective in the following case:

1- The glide should not be vowelled by a vowel that is not supplied by the basic form.
1- The glide should not be vowelled by a vowel that is not supplied by the basic form:

The y remains sound if it is the 3rd radical of a noun that carries the marker of the declension, and thus the vowel is not supplied by the basic form but by an external reason having to do with syntax (for this condition see 9.1. and compare the case of al-dalwu with the 3rd radical w par. 9.1.15: 2.).

An example is al-ramyu "the throwing" (cf. Åkesson, Ibn Mas'ūd 286: fol. 29a) in which the y is vowelled and preceded by a sukūn. If a phonological change is to be carried out in it, it would imply the transfer of its various vowels of declension: the ẓammā in the case of the nominative, the fatha in the case of the accusative and the kasra in the case of the genitive to the vowelless segment preceding this vowel. In the case of the ẓammā, al-ramyu would become al-ramuy and then the y would have to be changed into a vowelless w to accord with the ẓammā preceding it, namely al-ram(u)ū. In the case of the fatha, al-ramya would become al-ramay and then the y would have to be changed into a vowelless ā to accord with the fatha preceding it, namely al-ram(a)ā. In the case of the kasra, al-ramyi would become al-ramiy and the vowelless y would be changed into ī, namely al-ram(i)ī. In all the three cases, the declinable noun would have to end with a vowelless segment without any marker of declension, which is the reason why it is preferred that in order to safeguard the marker of the declension, the y, remains sound.

Another example of a declinable substantive is al-ẓabyu "the gazelle" with the 3rd radical sound y.
9.1.17. The glide, the w or y, is vowelless and preceded by a kasra: its change into a y or i respectively:
The general rule is that the vowelless glide that is preceded by a vowel is changed into a segment of the nature of the vowel preceding it. The reason of this change is the weakness of the state of the glide, which is vowelless, and the influence of the vowel, whether it is a kasra or a damma, preceding it, on it (cf. Åkesson, Ibn Mas'ūd 282: 27a).

If the glide is a vowelless w preceded by a kasra it is changed into a lengthened y:

-\textit{iw} \rightarrow -\textit{ly} > (i)\textit{i}

An example is \textit{miwzānun} that becomes \textit{m(i)yzānun} > \textit{m(i)izānun} "balance" (cf. par. 10.1.8.2.).

If the glide is a vowelless y preceded by a kasra it is changed into a lengthened y (cf. Wright, II, 80).

-\textit{iy} \rightarrow -(i)\textit{i}

An example is the imperative \textit{jiyisir} that becomes \textit{jiyisir} "be well off!".

9.1.18. The transposition of segments in some nouns:
An example is \textit{qisiyyun} underlyingly \textit{quw(u)ūsun} which is the pl. of \textit{qawsun} "bow" (cf. Åkesson, Ibn Mas'ūd 292: fols. 30b-31a, Howell, I, fasc. III, 930, IV, fasc. I, 1583-1585, de Sacy, I, 108, Vernier, I, 340-341).

It is so that \textit{quw(u)ūsun} is formed according to the pattern \textit{fu(u)ūlun} in which the radicals are transposed resulting in \textit{qusuwun} formed according to \textit{ful(u)ūn} and not \textit{fu(u)ūlun}, as if it is the pl. of \textit{qaswun} and not of \textit{qawsun}. In \textit{qusuwun} the wāws are changed into yās's because they occur at the extremity
of the word, which is deemed as heavy, resulting in *qusuyyun*, then the ẓamma of the s is changed into a kasra because of the y's influence, resulting in *qusiyyun*. The q becomes then vowelled with a kasra on the analogy of the kasra and of the y following it, so that it became *qisiyyun*.

The same phenomenon occurs with * 있지yyun* or *ущiyyun* pl. of *אשא "stick"* (cf. ibid). Another example in which the transposition of segments occurs is the pl. of *n(a)aqatun* namely * رائعون*. As the ẓamma is deemed heavy upon the w, the w is transposed made to precede the n resulting in *ważونون*, then the y is substituted for the w resulting in *نونون* (cf. Åkesson, *Ibn Mas'ūd* 292: fol. 31a, Howell, I, fasc. III, 1074). This change of the w into a y does not follow the analogy as the w is vowelless and is preceded by fatha, but it is carried out for the sake of alleviation.

9.2. Conclusion
I have studied in this chapter the various sequences that are constituted of a glide preceded by a sound segment, whether it is a consonant or a glide, in which the glide remains sound or is unsound for different reasons.

Generally, the glide remains sound if it is vowelless and preceded by a fatha, e.g. *qawlun "a saying"* and *bay'un "a selling"* (cf. 9.1.1.), or if it is vowelled by a fatha and preceded by a ẓamma, e.g. *nuwamatun "one who sleeps much"* (cf. 9.1.8.).

It is changed into an ā if it is vowelled by a fatha, kasra or ẓamma and preceded by a fatha, e.g. *gawala > q(a)āla "to say"* and *bay'a > h(a)ā'əa "to sell"* (cf. 9.1.2.), *ḥawifa > h(a)āfa "to
fear" and hayiba > h(ā)āba "to be afraid" (cf. 9.1.3.) and tawula > t(ā)āla "to become long" (cf. 9.1.4.).

It has its vowel shifted to the vowelless segment preceding it and is then changed into a lengthened ā, e.g. yahwafu > yahawfu > yah(ā)āfu "he is afraid" and yubya( c)u > yubay( c)u > yub(ā)āc u "is sold" (cf. 9.1.12.), an ū, e.g. yaqwulu "he says" > yaqwwlu > yaq(ū)ālu (cf. 9.1.15) or an ī, e.g. maby(ū)ūn "sold" > mabuy( ū)c un > mabuy( c)un > mabīy( c)un > mab(i)īc un (cf. 9.1.16).

Its vowel is elided if the glide is vowelled by a dāmma and preceded by a vowel, e.g. yağzuzu "he attacks" > yağzuw / yağz(ū)ū and yarmiyu "he throws" > yarmiy > yarm(i)ī (cf. 9.1.7.) and in the latter case, the y is elided together with its vowel if it is vowelled by a kasra and preceded by one, e.g. tarmiy(ī)-īn a > tarmiyy-īn a > tarm(ī)-īn a "you throw" (cf. 9.1.11.).

The y is changed into w if it is vowelless and preceded by a dāmma, e.g. yuysaru "is pleased" > yuwsaru > y(ū)ūsaru (cf. 9.1.5.).

The w is changed into a y if it is vowelled by a fatha and preceded by a kasra, e.g. d(ā)āfiwatun > d(ā)āfiyatun "the one who invites /fem." (cf. 9.1.9.).

The combination of the y vowelled by a dāmma and preceded by a kasra, or the w vowelled by a kasra and preceded by a dāmma is deemed as heavy and leads to certain phonological changes, among them the transfer of the vowel to the segment preceding it, the change of the dāmma into a kasra or the kasra into a dāmma together with the change of the y into a w or the w into a y, e.g. raḍiy(ū)-ū > raḍuy-ū > raḍ(ū)-ū "they were
pleased /masc. pl." (cf. 9.1.10.), quwila > qiwl > q(i)yla > q(i)Ila "it was said" and buyi\(^c\)a > biyi\(^c\)a > b(i)I\(^c\)a (cf. 9.1.6.).

I shall treat the substitution in the next chapter.
10. The substitution

In this chapter I shall study the phonological change known as substitution. The segments of substitution are at first presented and then the substitution of each one of them into another is discussed. The substitution is usually carried out in a word to alleviate the pronunciation if there exists in it a combination of two sounds which is deemed as heavy, or if both these segments' points of articulation are close to each other, or if the segments are akin in character (for the segments see 2.2.; for the assimilation see chapt. 2.). Other more unusual reasons relate to the peculiarity of a dialectal variant, to a verse’s metrical exigency or to the exigency of the pause.

10.1. The segments of substitution

There exist special segments which are recognized as segments that can be substituted for other segments (for a study of the substitution see Ibn Ğinnī, de Flexione 19-30, Ibn ʿUsfūr, I, 319-415, Zamaḥšarī, 172-177, Ibn Yaʿīš, X, 7-54, Howell, IV, fasc. I, 1182-1203). These segments are termed as hurūf al-ibdāl
"segments of substitution". They are comprised in different phrases, among them "'istānɡadahu yawma ʂāla Zuṭṭa" "he asked him for help on the day some Zuṭṭ [sc. a race of Hindus] attacked" (cf. Zamaḥšarī, 172, Ibn Ya'īš, X, 7-8, Åkesson, Ibn Mas'ūd 330, fol. 33b, Howell, IV, fasc. I, 1192-1193), which starts with the ʃ and ends with the š. According to their order in this phrase these segments are: 1- the ʃ, 2- the s, 3- the t, 4- the n, 5- the ɬ, 6- the d, 7- the h, 8- the y, 9- the w, 10- the m, 11- the ş, 12- the ā, 13- the l, 14- the ż, and 15- the š.

In what follows in this chapter, I shall study the segments, starting with the ʃ and ending with the š.

10.1.1. The substitution of the hamza

The ʃ can be substituted for the following segments: 1- the alif of feminization, 2- the w, 3- the y, 4- the h, 5- the ā and 6- the ş.

10.1.1.1. The substitution of the hamza for the alif of feminization, the ā (alif maqṣūra):

An example is ʂahr(a)ā in which the hamza is substituted for the alif of feminization (cf. Ibn Ḟinnī, de Flexione 25, Sirr I, 83-84, Ibn ʿUṣfūr, I, 329-331, Zamaḥšarī, 172, Ibn Ya'īš, X, 9, Åkesson, Ibn Mas'ūd 330: fol. 33b, Howell, IV, fasc. I, 1205). The base form is ʂahr(a)āā with a final alif maqṣūra preceded by an alif mamdūda, suggesting a forbidden combination of two vowelless segments, namely the alif mamdūda and the alif maqṣūra. The reason of replacing the alif maqṣūra by a hamza is to prevent this combination.

10.1.1.2. The substitution of the hamza for the w:

The w that is substituted by the hamza can be vowelled by any of the three vowels: the fatḥa, the ẓamma or the kasra.
1- The hamza vowelled by a fatha:

An example is ʿawāṣilu (cf. Zamaḥṣarī, 172, Ibn Yaṣīṣ, X, 10, Ibn ʿAqīl, II, 552, Åkesson, Ibn Masʿūd 330: fol. 34a, Howell, IV, fasc. I, 1218-1222, Fleisch, Traité I, 152, ʿAbd al-Tawwāb, Taṭawwur 41), the pl. of wāṣilatun "joining", that is conformable to the measure fawāṣilu, in which the ʿa is necessarily substituted for the 1st radical w vowelled by a fatha, the wa, of the base form wawāṣilu. The wa is changed into an ʿa to prevent the heavy combination of both the wāws.

Another example is the imperative ʿaḥḥid ʿaḥḥid in which the ʿa is substituted for the 1st radical w vowelled by a fatha, the wa, of the base form waḥḥid waḥḥid "make the sign with one, one" (cf. Rāzī in Ḥalīl b. Aḥmad ..., Ḥurūf 137 in the note, Zamaḥṣarī, 172, Ibn Yaṣīṣ, X, 14-15, Ibn Manẓūr, VI, 4782, Åkesson, Ibn Masʿūd 330: fol. 34a, Howell, IV, fasc. I, 1230).

A tradition relates that Muḥammad has said this phrase to a man when he saw him making the sign with his two forefingers in reciting the creed.

2- The hamza vowelled by a damma:

An example is ʿuğūḥun (cf. Sībawaihi, II, 341, Ibn Ğinnī, de Flexione 25, Sirr I, 92, Ibn ʿUṣfūr, I, 332, Zamaḥṣarī, 172, Ibn Yaṣīṣ, X, 10-11, Åkesson, Ibn Masʿūd 330: fol. 34a, Howell, IV, fasc. I, 1224-1225), the pl. of wağhun "face" from wağuha "to be a man of distinction" which is a verb with 1st radical w. In ʿuğ(u)ūḥun the ʿu is possibly substituted for the 1st radical w vowelled by a damma, the wu, of the base form wuğ(u)ūḥun. The reason of this substitution is the dislike of having the w vowelled by a damma (cf. Sībawaihi, II, 391), which is deemed as heavy.
Another example is *ad‘urun* “houses” (cf. Sibawaihi, II, 341, Ibn Ğinnī, *Sirr I*, 98, *de Flexione* 25, Zamaḥšarī, 172, Ibn ʿUṣfūr, I, 335-336, Ibn Ya‘īṣ, X, 10-11, Åkesson, *Ibn Maṣʾūd* 330: fol. 34a, Howell, IV, fasc. I, 1224-1225), the pl. of *d(a)ārun*, in which the *‘u* is necessarily substituted for the 2nd radical *w* that is vowelled by a ẓāmma, the *wu*, of the base form *adwurun*.

Another example is *kisā’un* "a wrapper" in which the *‘u* is necessarily substituted for the 3rd radical *w* (cf. Zamaḥšarī, 172, Ibn Ya‘īṣ, X, 9-10, Åkesson, *Ibn Maṣʾūd* 330: fol. 34a, Howell, IV, fasc. I, 1203-1204, Mokhlis, *Taṣrīf* 195) that is vowelled by a ẓāmma, the *wu*, of the base form *kisāwun*. This substitution is carried out to prevent that the original *w* becomes vowelled by any of the three vowels marking the declension, namely *kisāwun* for the nominative, *kisāwan* for the accusative and *kisāwin* for the genitive, which is deemed as heavy (cf. Åkesson, *Ibn Maṣʾūd* 330: fol. 34a).

3- The hamza vowelled by a kasra:

An example is *išāhan* "baldric" in which the *‘i* is possibly substituted for the 1st radical *w* (cf. Sibawaihi, II, 341) that is vowelled by a kasra, the *wi*, of the base form *wišāhan*. Zamaḥšarī, 172-173 notes that al-Māzini considered this substitution of the *w* vowelled by the kasra as *qiyyās* "analogy".

Another example is the active participle *q(a)āwilun* "saying" underlyingly *q(a)āwilun* from the verb *q(a)āla* "to say" underlyingly *qawala* with 2nd radical *w*. In it, the *‘i* is necessarily substituted for the 2nd radical *w* vowelled by a kasra, the *wi* (cf. Zamaḥšarī, 172, 180, Ibn Ya‘īṣ, X, 10, Ibn ʿUṣfūr, I, 327-329, Åkesson, *Ibn Maṣʾūd* 330: fol. 34a, Howell, IV, fasc. I, 1209-1210, par. 6.5.9.1., this study par. 9.1.14.).
10.1.1.3. The substitution of the hamza for the y:

The hamza can be substituted for the y vowelled by a fatha or with a kasra.

1- The hamza vowelled by a fatha:

An example is ʿadayhi in which the ʿ is possibly substituted for the initial y vowelled by a fatha of the base form yadayhi "his hands" (cf. Zamaḥṣarī, 173, Ibn Yaʾīš, X, 15, Ibn Manṣūr, VI, 4951, Åkesson, Ibn Masʿūd 330: fol. 34a, Vernier, I 346). According to Ibn Masʿūd (Åkesson, Ibn Masʿūd 330: fol. 34a), the reason of this substitution is the heaviness of the fatha vowelling the y.

2- The hamza vowelled by a kasra:

An example is the active participle b(a)āʾiʿun "selling" (cf. Zamaḥṣarī, 172, 180, Ibn Yaʾīš, X, 10, Ibn ʿUṣfūr, I, 327-329, Åkesson, Ibn Masʿūd 330: fol. 34a, Howell, IV, fasc. I, 1209-1210, Mokhliṣ, Taṣrif 195), from the verb b(a)āʾa "to sell" underlingly bayaʾa with 2nd radical y. The ʿ is necessarily substituted for the 2nd radical y vowelled by a kasra of the base form b(a)āyīʿun (cf. par. 6.5.9.2. and 9.1.14.).

10.1.1.4. The substitution of the hamza for the h:

An example is māʿun in which the ʿ is substituted for the 3rd radical h of the base form māḥun "water" (cf. Ibn Ġinnī, Sirr I, 100-101, Ibn ʿUṣfūr, I, 348-351, Zamaḥṣarī, 173, Ibn Yaʾīš, X, 15-16, Åkesson, Ibn Masʿūd 330: fol. 34a, Howell, IV, fasc. I, 1232-1235), from mawaha "to mix", a verb with 2nd radical w. The pl. form of māʿun is miyāḥun with the 3rd radical h and its diminutive is muwayhun (cf. Ibn Manṣūr, VI, 4302).
Another pl. form is ُامَّاَهِـٰنُ in which the $h$ is as well substituted by the $٣$ so that it became ُامَّاَهِـٰنُ. The reason of this substitution is the oneness of the point of articulation of the $٣$ and the $h$ as they both originate from the farthest part of the throat, and are laryngals (for the segments see par. 2.2.1.). The example ُامَّاَهِـٰنُ occurs in this verse cited by Ibn Ġinni, Sirr I, 100, Munṣif II, 151, Zamaḥšarī, 173, Ibn Yaʾīš, X, 15, Ibn ُعُشْفُر, I, 348, Ibn Manẓūr, VI, 4302, Howell, IV, fasc. I, 1233, Åkesson, Ibn Masʿūd 347: (325)):

"Wa-baldatin qālīṣatin ُامَّاَهِـٰنُ māṣīhātin raʿda l-duḥū ʿafyāʿuhā".
"And many a land, whose waters were exhausted,
and whose shades were passing away in the part of the noon when the sun was hight".

10.1.1.5. The substitution of the hamza for the ُ\text{ā}:

An example is the active participle of Form VIII ل-مُسْتَثِيِّق (in pause) in which the ُ\text{ī} is substituted for the ُ\text{ā} of ل-مُسْتِثِّق "the yearner" from ُشَوَاَقَا "to desire", a verb with 2nd radical ُ\text{w}, that occurs in a verse cited by Ibn Ġinni, Sirr I, 91, Ḥaṣāʾiṣ III, 145, Zamaḥšarī, 172, Ibn Yaʾīš, X, 12-13, Ibn Manẓūr, II, 1405, IV, 2361, Howell, IV, fasc. I, 1227, Åkesson, Ibn Masʿūd 347: (326)):

"Yā dāra Mayya bi-l-dakādīki l-buraq šābān fa-qad hayyağti ُشَوَاَقَا l-muṣṭāʾiq".
"O abode of Mayya [sc. a woman's name] in the low-lying sands, sands mixed with stones and earth,
give me patience, for you have excited the yearning of the yearner".

10.1.1.6. The substitution of the hamza for the ُ\text{ṣ}:

An example is the substantive ُعُبَائِنُ in which the ُ\text{ā} is substituted for the ُ\text{ṣ} of the base form ُعُبَائِنُ "billow". The reason of this substitution is the closeness of the points of articula-
tion of the ʾ and the ʾc as the ʾ and originates from the farthest part of the throat and is a laryngal and the ʾc originates from the middle of the throat and is a pharyngal (for the segments see par. 2.2.).

This theory about the substitution that concerns ʾubābun is however criticized by Ibn Ǧinnī, Sirr I, 106, who does not consider the ʾ to be substituted for the ʾc, but that the form is fuʿālun, namely ʾub(a)ābun from ʾabba "to prepare itself". His remark is also mentioned by Ibn Manṣūr, I, 4. The example ʾubābu occurs in this verse cited by Ibn Ǧinnī, Sirr I, 106, Zamaḥšarī, 173, Ibn Yaʿūsī, X, 15, Ibn ʿUṣfūr, I, 352, Howell, IV, fasc. I, 1235, Åkesson, Ibn Masʿūd 349: (328):

"Wa-māga sāʿātin malā l-wadīqi
ʾubābu bahrin dāhikin zahūqi"
"And the deserts of intense heats were agitated at times, like a billow of a laughing, far-extending sea".

10.1.2. The substitution of the s

The s can be substituted for the t.

10.1.2.1. The substitution of the s for the t:

An example is ʾistahada in which the s is substituted for the t of the base form Form VIII ʾittahada "to take for one’s self" (cf. Sibawaihi, II, 480, Åkesson, Ibn Masʿūd 330: fol 34a, Howell, IV, fasc. I, 1192), from ʾahada "to take". The verb ʾistahada referring to Form VIII should not be confounded with Form X ʾistahada which looks exactly the same as it. The reason why the t is changed into the s in it is that they both are among the surd segments (for them see par. 2.2.2.).

10.1.3. The substitution of the t

The t can be substituted for the following segments: 1- the w, 2- the y, 3- both the d and the s, 4- the s and 5- the b.
10.1.3.1. The substitution of the t for the w:

This substitution can affect the initial segment or the ultimate segment of a word.

An example that concerns the initial segment is tuḥamatun in which the t is substituted for the initial w of the base form wuḥamatun "a malady like cholera" (cf. Ibn Yaṣīṣ, X, 37-38, Åkesson, Ibn Masʿūd 330: fol 34a). Some other examples (for them see Ibn Yaṣīṣ, X, 38-39) are tuḡāha "in front of" for wuḡāha, tayqūrūn for wayqūrūn "grave", tuḵlānūn for wuḵlānūn "incapacity and reliance upon others", tuḵalatūn for wuḵalatūn "a man incapable, committing his affair to another", tuḥamatūn for wuḥamatūn "suspicion", taqīyatūn for waqīyatūn "fear", tuḵātūn for wuḵātūn "inheritance" that occurs in the sur. 89:19 (wa-taʾkulūna l-tuḵātūn ʾaḵlān lammā) "And ye devour Inheritance - All with greed" and tilādūn for wilādūn "old property, what was born in your possession".

An example that concerns the ultimate segment of the word is ṣuḥtūn "sister" in which the t is substituted for the 3rd radical w of the base form ṣuḥwūn (cf. Zamaḥšārī, 175, Ibn Yaṣīṣ, X 39-40, Åkesson, Ibn Masʿūd 330: fol 34b, Howell, I, fasc. III, 1370-1372, IV, fasc. I, 1347-1348, ʿAbd al-Tawwāb, Taṭawwur 91), that is from the root ʿaḥ w with 3rd radical ʿ.

10.1.3.2. The substitution of the t for the y:

An example is tintānī in which the t is substituted for the 3rd radical y of ẓanayānī "the second to the one" (cf. Zamaḥšārī, 175, Ibn Yaṣīṣ, X, 40, Ibn ʿUṣfūr, I, 388, Åkesson, Ibn Masʿūd 330-332: fol 34b, Howell, IV, fasc. I, 1349-1350), from the expression ẓanaytū l-wāḥiḍa "I was a second to the one", and in Form IV ʿasnatū for ʿasnayū "they experienced drough or barrenness" with 3rd radical y. Referring to ʿasnatū, Sibawaihi, II,
341 notes that the substitution of the t for the y as a 3rd radical is rare. It can be mentioned that țintâni is used in the dialectal variant of Tamîm (cf. Daqîr, Muğam 2 in the notes, 338) and șîtnâni and șîtnatâni are used by the Hîgâzîs (cf. ibid 338). The reason of this substitution is to avoid vowel ling the y (cf. Åkesson, Ibn Mas'ûd 332: fol 34b), which is deemed as heavy.

10.1.3.3. The substitution of the t for the d and the s:

An example is sittun "six" in which the doubled t is substituted for the d and the s of the base form sudusun (cf. Sibawaihi, II, 479, Åkesson, Ibn Mas'ûd 332: fol. 34b, Zamaḥšarî, 175, 196). This substitution of the t for both the d and the s in sudusun is considered as rare by Sibawaihi, II, 341.

Other examples in which the t is substituted for the s are l-nâi, underlyingly l-nâsi, and șakyâti underlyingly șakyâsi which occur in these verses, which are believed to have been said by șIbâ șb. Arqam al-Yaşkari. This substitution pertains to a dialectal variant that is known to be of the usage of the Yemenites, and is called al-watmu. The verses are cited by Râzî in Ḥalîl b. șAhmad ..., șHurûf 150, Ibn Fâris, Šâhibî 109, Ibn șInnî, Sirr I, 155, șHasâ'îs II, 53, Zamaḥšarî, 175, Ibn Yağîş, X, 36, Ibn șUsfûr, I, 389, Ibn Manžûr, I, 148, Howell, IV, fasc. I, 1352-1353, Åkesson, Ibn Mas'ûd 352: (334)):

"Yâ qâtala l-lâhu bani l-sîlâti
'Amr b. Mas'ûd širâra l-nâti
gayra 'a șiffâ'a wa-lâ șakyâti".
"O [my people] God slay the sons of she-devils,
'Amr b. Mas'ûd, the worst of men, incontinent and not sharp-witted!".

10.1.3.4. The substitution of the t for the ş:

An example is liştun or luştun in which the t is substituted anomalously for the 2nd ş of the doubled şâds of the base form
liṣṣun or luṣṣun "robber" (cf. Zamahšarī, 175, Ibn Yaḵšīḵ, X, 41, Åkesson, Ibn Masʿūd 332: fol 34b, Howell, IV, fasc. I, 1353). The reason of this substitution is that both the t and the ẓ are among the surd segments (for the segments' characters see par. 2.2.2.), which facilitates the substitution of one for the other.

10.1.3.5. The substitution of the t for the b:
An example is daḵālitun in which the t is substituted for the b of the base form daḵālibun "worn-out rags". The example daḵālitin in the genitive occurs in this verse, which according to Ibn Manẓūr, II, 1504, 2100, is said by one of the Banū c Awf b. Saḵd. It is also cited by Ibn Ḥinnī, Sirr I, 157, Howell, IV, fasc. I, 1355, Åkesson, Ibn Masʿūd 353: (336):

"Safqatu dī daḵālitin samūli
bayḏu mriʾin laysa bi-mustaqūli".
"The bargain of the poor needy purchaser, wearer of worn-out rags is, in irrevocability and conclusiveness, like a sale by a man that is not desirous of rescinding".

10.1.4. The substitution of the n
The n can be substituted for the following segments: 1- the w and 2- the l.

10.1.4.1. The substitution of the n for the w:
An example is ṣanḵānīyu "someone or something from a city in Yemen" in which the n is substituted for the w of the base form ṣanḵāwīyu (cf. Ibn Ḥinnī, de Flexione 25-26, Sirr II, 441, Zamahšarī, 175, Ibn Yaḵšīḵ, X, 36, Ibn ḤUṣfūr, I, 395-396, Howell, IV, fasc. I, 1335-1336), which is the relative noun of ṣanḵāzū "a city in Yemen".
10.1.4.2. The substitution of the $n$ for the $l$:


10.1.5. The substitution of the ġ

The ġ can be substituted for the $y$.

10.1.5.1. The substitution of the ġ for the $y$:

The ġ is substituted for the single $y$, but less often than the double one in pause. Examples referring to the single $y$ are *ḥaḡgatīg* underlyingly *ḥaḡgatiy* "my pilgrimage" (that results in *ḥaḡgat(i)l* after the assimilation of the $y$ to the $i$) and *biḡ* for *biy* "me" (that results in *bi(i)y* after the assimilation of the $y$ to the $i$), which occur in this verse, whose author is, according to the editor of Ibn al-Sarrāḡ, *Uṣūl III*, 274, Abū Zāid: Saʿīd b. Aus b. Ṭābit al-Anṣārī, the author of *al-Nawādir*. It is also cited by Ibn Ğinnī, *Sirr I*, 177, *de Flexione* 30, Zamaḥšarī, 176, Ibn Yaʾīš, X, 50, *Mulūkī* 329, Ibn ʿUṣfūr, I, 355, Howell, IV, fasc. I, 1376, Lane, I, 47, Vernier, I, 356-357, Åkesson, *Ibn Masʿūd* 354: (340):

"Lāhumma ʾin kunta qabilta ḥaḡgatiḡ
fa-ła yazālu šāḥiḡun yaʾṭīka biḡ".
"O God, if You have accepted my pilgrimage,
then a mule shall not cease to bring me to You".

Examples that refer to the doubled $y$ are "Aliḡḡi" "ʿAlī" in which the double ġ is substituted for the double $y$ of "Alīyyi in the construct state ʿAbū "Aliḡḡi" "Abū ʿAlī" of the verse cited below, and *bi-l-ʾašiḡḡi* said instead of *bi-l-ʾašiyyi* in it. This phenomenon pertains to the dialectal variant of Quḍāʾa, Banū

"Ijāli ʿUwayfūn wa-ʾAbū ʿAlīḡī ʿal-mufcimān 1-l-affī bi-l-ʿaḡīḡī".

"My maternal uncle ʿUwayf and Abū ʿAlīḡī [sc. Abū ʿAlī], they who provide meat for food at evening".

10.1.6. The substitution of the \( d \)
The \( d \) can be substituted for the \( t \).

10.1.6.1. The substitution of the \( d \) for the \( t \):

An example is fuzdu in which the \( d \) is substituted for the \( t \) of the base form fuztu "I succeeded" (cf. Zamaḥšarī, 176, 196, Ibn Yaʾīš, X, 48, 151, Åkesson, Ibn Masʿūd 332: fol 34b, Howell, IV, fasc. I, 1373). The -tu is the suffixed agent pronoun of the 1st person of the singular and the verb is fawāza with middle radical \( w \).

Another example is ʿiḡdamaʿū in which the \( d \) is substituted for the infixed \( t \) of the base form VIII ʿiḡtamaʿū "they gathered together" (cf. Ibn Fāris, Ṣāḥibī 109, Ibn Yaʾīš, X, 49, Howell, IV, fasc. I, 1372).

10.1.7. The substitution of the \( h \)
The \( h \) can be substituted for the following segments: 1- the \( ɔ \), 2- the \( å \), 3- the \( y \) and 4- the \( t \).
10.1.7.1. The substitution of the \( h \) for the hamza:

The \( h \) in Form I \( haraqtu \) "I spilled" is substituted for the \( \ddot{a} \) of its base form \( \dddot{araqtu} \) (cf. Sibawaihi, II, 341, 364, Åkesson, \textit{Ibn Mas'ud} 332: fol 34b, de Sacy, I, 247, 224 note 1, Vernier, I, 152).

10.1.7.2. The substitution of the \( h \) for the \( \ddot{a} \):

The last \( h \) in \( hayyahalah \) "come along!" is substituted for the \( \ddot{a} \) of the base form constituted of two words \( hayya halâ \) (cf. Zamâḥšârî, 156, 175, Ibn Ya'īš, X, 43, Åkesson, \textit{Ibn Mas'ud} 332: fol 34b) in pause. The other variants are \( hayya hal \) with the sukûn in pause and \( hayya hala \) otherwise (cf. Wright, II, 294). The example \( hayyahalah \) belongs to the category of words that has been determined by Sibawaihi, I, 104 as "nouns in the sing. pertaining to verbs, (whose action they denote)" (for a study see Sibawaihi, I, 105-107, Versteegh, \textit{Zâgâghi} 63). A verse said by a man of the Banû Bakr b. Wa'îl, cited by Zamâḥšârî, 62, Ibn Ya'īš, IV, 46, Ibn Manzûr, VI, 4693, Howell, I, fasc. II, 682, Åkesson, \textit{Ibn Mas'ud} 356: (344) has \( hayyahaluh \) with the ġamma as a vowel of declension over the \( l \):

\begin{quote}
\textquoteright;Wa-hayyağa l-hayya min dārin fa-žalla lahum yawmun kātirun tanāḍîhi wa-hayyahaluh. \\
And he [sc. the camel-driver] roused the tribe from an abode; and a day, in which the calling of one to another and "make haste" were many, was spent by them\textquoteright;.
\end{quote}

The \( h \) in \( anah \) is substituted for the \( \ddot{a} \) of \( anâ \) "I" (cf. Ibn Ġinnî, \textit{Sîrî I}, 163, II, 555, de Flexione 22, 28, Zamâḥšârî, 175, Ibn Ya'īš, III, 138, IV, 6, IX, 80-81, X, 43, Åkesson, \textit{Ibn Mas'ud} 332: fol 34b, Howell, I, fasc. II, 577).
10.1.7.3. The substitution of the \( h \) for the \( y \):

The \( h \) that marks the fem. sing. in the demonstrative pronoun \( hāḍihi \) "this is" from the phrase \( hāḍihi ʿamatu l-lāhi \) "this is the servant of God", is substituted for the \( y \) of the base form \( hāḍī \) (cf. Rāzī, in Ḥalīl b. Aḥmad ..., Ḥurūf 154, Sībawaihi, II, 341, Ibn Ğinnī, Sirr II, 556, Zamaḥšarī, 176, Ibn Yaʿīš, III, 131, X, 44-45, Åkesson, Ibn Masʿūd 332: fol 34b).

10.1.7.4. The substitution of the \( h \) for the \( t \):

The \( h \) in Ṭalḥaḥa "Ṭalḥa" is substituted for the \( tāʾ marbūta \) of its base form Ṭalḥat (cf. Zamaḥšarī, 176, Ibn Yaʿīš, X, 45, Åkesson, Ibn Masʿūd 332: fols. 34b-35a, Howell, IV, fasc. I, 1364-1365, Fleisch, Traité I, 183-184) in pause. This substitution is carried out specifically in nouns ending with the \( tāʾ marbūta \) which marks in them the fem. sing. and not in verbs that occur in the perfect of the fem. sing. ending with the suffixed \( tāʾ tawīla \) that marks the fem. sing., e.g. ḏarabat "she hit". It can be noted that the characteristic \( tāʾ tawīla \) suffixed to verbs cannot be substituted by the \( h \) in pause, i.e. ḏarabat cannot become ḏarabah, as there is a risk of confounding this \( h \) with the suffixed pronoun of the accusative of the 3rd person of the masc. sing., the -\( hu \) "him", because in the written form without vowels both ḏarabah and ḏarabahu "he hit him" would look alike, i.e. صربه.

10.1.8. The substitution of the \( y \)

The \( y \) or the ā can be substituted for the following segments: 1- the ā, 2- the \( w \), 3- the ʿ, 4- one of the doubled segments, 5- the \( n \), 6- the ā, 7- the \( t \), 8- the \( b \), 9- the \( s \) and 10- the \( t \).
10.1.8.1. The substitution of the i for the ā:

The ī in muʃaytīhun "a little key" is substituted for the ā. The example muʃay(i)hun is the diminutive of miftāhun, and is conformable to fuʿay(i)lun. It is the last vowelless ī in this example that is considered to be substituted for the ā (cf. Ibn Ğinnī, de Flexione 23, Sirr II, 731-732, Zamaḥšari, 173, Ibn Yaʿīš, X, 21, Ákesson, Ibn Masʿūd 332: fol 35a, Howell, IV, fasc. I, 1256) as it is preceded by a kasra. The pattern fuʿayʿilun is appliable to every quinqueliteral noun in which the 4th segment is an ā, Ĺ or ī (for examples see Zamaḥšari, 87, Howell, I, fasc. III, 1167, Wright, II, 166, Vernier, I, 198), e.g. miṣbāhun: muṣaybīhun "little lamp", qarbusun: quraybīsun "a little pommel of a saddle", and qindilun: qunaydīlun "little candelabrum".

10.1.8.2. The substitution of the y for the w:

The y in miyqātun (which results in m(i)iqātun after the assimilation of the y to the i) is substituted for the vowelless w of the base form miwqātun "time appointed for performance of an action" (cf. Zamaḥšari, 173, 185, Ibn Yaʿīš, X, 21, Ákesson, Ibn Masʿūd 332: fol. 35a, Howell, IV, fasc. I, 1270-1271), because the w is vowelless and influenced by the kasra preceding it.

The y in miyżānun (which results in m(i)izānun after the assimilation of the y to the i) is substituted for the vowelless w of the base form miwżānun "balance" (cf. Ibn Ğinnī, Munṣīf I, 220-221, Ákesson, Ibn Masʿūd 282: fol 27a, this study par. 9.1.17.) from the root w z n. The reason of this substitution is the vowellessness of the w and the influence of the kasra preceding it.

The second y of the doubled yāʾs in the noun in the sing. kayyaṭnatun is substituted for the 2nd radical w vowelled by a fathā of the base form kaywaṭnatun "being" which is conform-
able to \textit{fay}ˈalūlatun, and then the vowelless \textit{y} is assimilated to the \textit{w} (cf. Ibn Ğinnī, \textit{Munṣif II}, 10, Åkesson, \textit{Ibn Masˈūd} 282: fol. 27a-27b, this study par. 9.1.12.2.). Likewise, the second of the doubled \textit{yās} in the noun in the sing. \textit{mayyitun} is substituted for the \textit{w} vowelled by a kasra of the base form \textit{maywitun} "a dead man", and then the vowelless \textit{y} is assimilated to the \textit{w} (cf. Åkesson, \textit{Ibn Masˈūd} 282: fol. 27b, this study par. 9.1.13.1.).

The \textit{y} in the broken pl. \textit{diy(a)ārun} is substituted for the 2nd radical \textit{w} vowelled by a fāṭa of the base form \textit{diw(a)ārun} "houses" (cf. Åkesson, \textit{Ibn Masˈūd} 284: fol. 28a, Howell, IV, fasc. I, 1264, this study par. 9.1.9.1.). Other examples are \textit{siy(a)ātun} in which the \textit{y} is substituted for the 2nd radical \textit{w} vowelled by a fāṭa of the base form \textit{siw(a)ātun} "whips" and the verbal noun \textit{qi}ˈ(a)āmun in which the \textit{y} is substituted for the 2nd radical \textit{w} vowelled by a fāṭa of the base form \textit{qiw(a)āmun} "standing" (ibid).

10.1.8.3. The substitution of the \textit{y} for the hamza:


10.1.8.4. The substitution of the \textit{y} for one of the doubled segments in the doubled verb:

This substitution is discussed in par. 1.2.1.7. Some examples that are taken up there are Form V \textit{tasarraytu} said instead of \textit{tasarrartu} "I had a concubine" and Form V \textit{taţiannaytu} "I formed an opinion" said instead of \textit{taţiannantu}.
10.1.8.5. The substitution of the y for the n:

The last y among the doubled ya's in ُanāsiyyu is substituted for the n (cf. Ibn Ya`īš, X, 27, Ibn Manẓūr, I, 148, Åkesson, Ibn Mascūd 332: fol. 35a, Howell, I, fasc. III, 100, IV, fasc. I, 1296) of the base form ُanās(i)ynu "men" that results after the assimilation of the y to the i in ُanās(i)īnu. The example ُanāsiyyu is said to be the pl. of ُinsānun, and not of ُinsīyun "a human being, man".


10.1.8.6. The substitution of the ī for the c:

The ī in ُdafād(i)ī is substituted for the c of the base form ُdafādīc "frogs" (cf. Åkesson, Ibn Masīd 332: fol. 35a, Nöldeke, Grammatik 13). The c in ُdafādīc is counted as heavy on account that it is a guttural segment, and as the kasra preceding it is closer to the ī, it became more natural to replace the c by the ī. The example ُdafādī occurs in the saying of Ḥalaf al-Aḥmar, whose verse is cited by Sibawaihi, I, 300, Ibn Ćinnī, Sirr II, 762, Zamāḥšārī, 174, Ibn Ya`īš, X, 28, Ibn ُUṣfūr, I, 376, Ibn Manẓūr, IV, 2594, Howell, IV, fasc. I, 1296, Åkesson, Ibn Masīd 361: (355):

"Wa-manhalin laysa lahu ُhawāziqū wa-li-dafādī ُγammaḥī naqāniqū"

"And many a watering-place, which has no sides preventing any one from coming down to it, but to which every one is able to come down from all of its sides, and the frogs of whose main part have croakings!"
10.1.8.7. The substitution of the y for the t:

The y in ʿiytaṣalat "it joined" (that results after the assimilation of the y to the i in ʿ(i)itaṣalat) is substituted for the w (cf. Ibn Ğinnī, Sirr II, 764, Ibn Yaʾīṣ, X, 26, Mulūkī 248, Ibn ʿUṣfūr, I, 378, Ibn Manẓūr, VI, 4850, Åkesson, Ibn Masʿūd 332: fol. 35a, Howell, IV, fasc. I, 1296) of the base form VIII ʿiwtaṣalat "it joined" from waṣala "to join". The example ʿiwtaṣalat has a vowelless w, which is at first assimilated to the infixed t of Form VIII resulting in ʿuttaṣalat. Then the vowelless t is anomalously changed into a y on account of the influence of the kasra preceding it resulting in ʿiytaṣalat. The example fa- ytaṣalat occurs in this verse said by an unknown poet, in which he describes a wild cow searching for her calf. It is cited by Ibn Ğinnī, Sirr II, 764, Ibn Yaʾīṣ, X, 26, Mulūkī 248, Ibn ʿUṣfūr, I, 378, Ibn Manẓūr, VI, 4850, Howell, IV, fasc. I, 1296, Åkesson, Ibn Masʿūd 362: (356):

"Qāmat bi-hā tanṣudu kullu l-munṣadi fa-ytaṣalat bi-miṭṭi ʿawwāth l-farqadī’:

"She stood in it [sc. the patch of ground], seeking with all inquiry, and joined [a calf] like the light [of the asterism called] al-farqad, [by which one guides oneself]".

10.1.8.8. The substitution of the y for the b:

The y in ʿaṭā(i)y (that results after the assimilation of the y to the i in ʿaṭā(i)i) is substituted for the b of ʿaṭālib "foxes" (cf. Åkesson, Ibn Masʿūd 332: fol. 35a). The reason of this substitution seems to be the influence of the kasra preceding the b. The example l-ʿaṭāli occurs instead of l-ʿaṭālibi (in the genitive) and ʿarānīhā instead of ʿarānibuhā (cf. Nöldeke, Grammatik 13) in this verse cited by Sibawaihi, I, 300, Ibn Ğinnī, Sirr II, 742, Ibn al-Sarrāģ, Uṣūl III, 467, Zamaḥšarī, 174, Ibn Yaʾīṣ, X, 24, 28,
"La-hâ 'ašârîru min laḥmīn tut'ammarîhu 
mina l-ṭa'ālî wa-waḥzûn min 'arânihâ".
"She has bits of flesh that she dries,
of foxes, and a little of her hares".

10.1.8.9. The substitution of the y for the s:
The y in sād(i)y (that results after the assimilation of the y to the i in sād(i)i) is substituted for the s of the base form sādis "the sixth" (cf. Åkesson, Ibn Mas'ūd 332: fol. 35a, Nöldeke, Grammatik 13). The reason of this substitution seems to be the influence of the kasra preceding the s. The example sādi occurs in this verse said by Imru'u 1-Qais, cited by Ibn Ğinnī, Sirr II, 741, Zamaḥṣarī, 174, Ibn Yaʾīš, X, 24, 28, Mulūkī 255, Ibn ʿUsfūr, I, 368, Ibn Manzūr, III, 1934, 1979, V, 3414, Howell, IV, fasc. I, 1297, Åkesson, Ibn Mas'ūd 362: (358):

"Idāmā ʿudda ʿarbaʿatun fisālun 
fa-zawḡuki ḩāmisun wa-ʿabūki sādī".
"Whenever four mean unmanly fellows are reckoned, 
your husband is fifth, and your father sixth".

10.1.8.10. The substitution of the y for the t:
The y in l-ṭāl(i)y (that results after the assimilation of the y to the i in l-ṭāl(i)i) is substituted for the t of the base form l-ṭālī "the third" (cf. Åkesson, Ibn Mas'ūd 332: fol. 35a, Nöldeke, Grammatik 13). The reason of this substitution seems to be the influence of the kasra preceding the t (cf. Åkesson, Ibn Mas'ūd 332: fol. 35a). The example l-ṭālī occurs in these verses said by an unknown poet, cited by Rāzī in Ḥalīl b. Aḥmad ... , Ḥurūf 155, Ibn Ğinnī, Sirr II, 764, Zamaḥṣarī, 174, Ibn Yaʾīš, X, 28, Mulūkī 255, Ibn ʿUsfūr, I, 378, Ibn Manzūr, I, 497, Howell, IV, fasc. I, 1297-1298, Åkesson, Ibn Mas'ūd 362: (359):
"Yufdika ya Zur'a 'abi wa-hāli
qad marra yawmāni wa-hāda l-tāli
wa- 'anta bi-l-hiğrāni la tubāli".
"My father and my maternal uncle shall be a ransom for you, O
Zur'a!
Two days have passed and this is the third; and you do not
care for the desertion".

10.1.9. The substitution of the w
The w or the ā can be substituted for the following segments: 1-
the ā, 2- the y, and 3- the ʾ.

10.1.9.1. The substitution of the w for the ā:
The w in ḏawāribu "striking /pl." is necessarily substituted
for the ā (cf. Ibn Ğinnī, de Flexione 24, Sirr II, 581-582,
Zamaḥšārī, 174, Ibn Yaʾīš, X, 29, Ākesson, Ibn Masʿūd 334:
fol. 35a). The example ḏawāribu is the broken pl. of the active
participle ḏāribun and is conformable to the pattern fawāʾilu. It
is assumed that in its base form, the alif that marks the pl. is in-
fixed after the infixed alif of the active participle ḏāribun causing
a cluster of two vowelless alifs, namely ḏ(a)āāribun. The 1st ā
is substituted by the w to prevent this cluster so that it became
 ḏawāribu. The substitution of the w for the ā is considered as
natural as they are both glides (cf. Ākesson, Ibn Masʿūd 334:
fol. 35a).

10.1.9.2. The substitution of the w for the y:
The w in the active participle Form IV muwqinun (that re-
results after the assimilation of the w to the u in m(u)ūqinun) is
necessarily substituted for the 1st radical vowelless y of the base
form muyqinun "to be certain" (cf. Sibawaihi, II, 342, Ibn Ğinnī,
de Flexione 24, Sirr II, 584, Zamaḥšārī, 174, Ibn Yaʾīš, X, 30,
Ākesson, Ibn Masʿūd 334: fol. 35a, Howell, IV, fasc. I, 1301)
from 'ayqana "was certain" with 1st radical y. The reason of this substitution is that the vowelless y is preceded by a ādāma (cf. Åkesson, Ibn Mas‘ūd 334: fol. 35a). A similar case is the active participle Form IV muwsirun > m(u)ūsirun from 'aysara "was prosperous", underlyingly muysirun "to be well off", in which the 1st radical vowelless y is also substituted by the w because it is preceded by a ādāma (cf. par. 5.4.1.1., par. 9.1.5.).

Another example is the verb in the imperfect Form IV yuwsiru "is well off" > y(u)ūsiru underlyingly yuysiru of which the 1st vowelless radical y is changed into a w on account of the influence of the ādāma preceding it (cf. par. 5.4.1.1.).

10.1.9.3. The substitution of the w for the hamza:

The w in luwmun (that results after the assimilation of the w to the u in l(u)ūmun) is substituted for the ʾ of the base form luμun "blame" (cf. Åkesson, Ibn Mas‘ūd 334: fol. 35a and this study par. 4.1.2.1.: 2).

10.1.10. The substitution of the m

The m can be substituted for the following segments: 1- the w, 2- the l, 3- the n and 4- the b.

10.1.10.1. The substitution of the m for the w:

The m in famun is substituted for the w (cf. Zaḡḡāḡī, Maḡālis 327, Ibn Ğinnī, Sirr I, 413-421, Zamaḥšarī, 174, Ibn Yaʿīš, X, 33-34, Åkesson, Ibn Mas‘ūd 334: fol. 35a, Wright, II, 173, Vernier, I, 16-17) of the base form fawahun "mouth" of which the h is elided for the purpose of alleviation. According to Sibawaihi, II, 342, the substitution of the m for the w in famun is rare.
10.1.10.2. The substitution of the m for the l:

The m in ʾam is substituted for the l of the definite article ʾal. ʾam denotes determination in the dialect of Tayyī and Ḥimyar which is named al-ṭumṭumānīyatu (cf. Rabin, 49). The tradition laysa mina l-barri l-ṣiyāmu fī l-safari "fasting in travelling is not an act of piety" has been said with the substitution of the m for the l, namely laysa mina m-barri m-ṣiyāmu fī m-safari by al-Namir b. Tawlab. It is cited by Ibn Ğinnī, Sirr I, 423, Zamaḥšarī, 153, 174, Ibn Yaḍīš, X, 34, Ibn Ḥišām, Muğnī I, 48, Ibn ʿUṣfūr, I, 394, Ḥarīnī, Durra 183, Ākesson, Ibn Masʿūd 334: fol. 35a-35b, Howell, II-III, 676, IV, fasc. I, 1330, Rabin, 36, Wright, II, 270, Carter, Linguistics [Ṣirbīnī, Āğurrūmīyā] 22, 23. According to Ibn Masʿūd (Ākesson, Ibn Masʿūd 334: fol. 35b), this substitution of the m for the l is carried out on account of both these segments’ common character in being among the voiced segments (for the segments’ characters see par. 2.2.2.).

10.1.10.3. The substitution of the m for the n:

The m in ʾambarun is substituted for the vowelless n of the base form ʾanbarun "a warehouse" (cf. Sibawaihi, II, 342, Ibn Ğinnī, de Flexione 26, Zamaḥšarī, 174-175, Ibn Yaḍīš, X, 33-36, Ākesson, Ibn Masʿūd 58: fol. 6 b, 334: fol. 35b). The substitution of the m for the n is necessary when the n occurs vowelless before the b because of the heaviness implied by the combination of the nasal n and the rigid b. Another example is šambāşun said instead of šanbāşun "having sharp canine teeth".

An example in which this substitution is carried out without that the n that precedes the b is vowelless is banām in which the m is substituted anomalously for the vowelled n of the base form banān "henna" (cf. Nöldeke, Grammatik 12). The example l-

"Yā Hāla ḍāta l-manṭiqi l-tamtāmi
wa-kaffiki l-muḥḍḍābi l-banāmi".
"O Hāla [sc. name of a woman], possessed of the lisping speech, and of your hand dyed in [the tips of] the fingers with henna".

10.1.10.4. The substitution of the m for the b:

The m in rātiman is substituted for the b of the base form rātibān (cf. Zamaḥšarī, 175, Ibn Yaʿīš, X, 35) in the sentence mā zīltu rātiman "I have not ceased to be constant" (cf. Ākesson, Ibn Masʿūd 334: fol. 35b). The reason of this substitution is the oneness of both these segments’ point of articulation on account that they are both labials (for the segments see par. 2.2.1.).

10.1.11. The substitution of the ş

The ş can be substituted for the s.

10.1.11.1. The substitution of the ş for the s

An example is ʿaṣbağa in which the ş is allowably substituted for the s of its base form ʿaṣbağa "to make flow in exceeding measure" (cf. Zamaḥšarī, 176, Ibn Yaʿīš, X, 51-52, Howell, IV, fasc. I, 1378-1380, Fleisch, Traité I, 80-81). It occurs in the sur. 31: 20 (wa-ʿaṣbağa ʿalaykum niʿamahu) "And has made His bounties flow to you in exceeding measure", underlyingly wa-ʿaṣbağa, read with both the s and the ş (cf. Ibn Ğinnī, Sirr I,
212). The reason of this substitution is the proximity of the points of articulation of both the s and the š (cf. Åkesson, *Ibn Mas'ud* 334: fol. 35b), on account that they both originate from the part which is between the tip of the tongue and the tops of the two upper central incisors and are dentals (for the segments see par. 2.2.1).

**10.1.12. The substitution of the ā**

The ā can be substituted for the following segments: 1- the w, 2- the y and 3- the ʼ.

10.1.12.1. *The substitution of the ā for the w:*

An example is q(a)āla in which the ā is necessarily substituted for the w of the base form qawala "to say" (cf. Åkesson, *Ibn Mas'ud* 334: fol. 35b). The reason of this substitution is that the vowelled w is found in a measure of a verbal form, namely fa'ala, and is preceded by a fatha (cf. par. 6.5.1.1.: 1, 9.1.2.1.).

10.1.12.2. *The substitution of the ā for the y:*

An example is b(a)ā'ā in which the ā is necessarily substituted for the y of the base form bayā'a "to sell" (cf. ibid). The reason of this substitution is that the vowelled y is found in a measure of a verbal form, namely fa'ala, and is preceded by a fatha (cf. par. 6.5.1.2.: 1, 9.1.2.1.).

10.1.12.3. *The substitution of the ā for the hamza:*

An example is r(a)āsun in which the ā is allowably substituted for the ʼ of the base form ra'asun "head" (cf. Åkesson, *Ibn Mas'ud* 334: fol. 35b, Nöldeke, *Grammatik* 6). The reason of this change is the vowellessness of the ʼ and the vowelling of the segment preceding it (see par. 4.1.2.1.: 1).
10.1.13. The substitution of the l
The l can be substituted for the following segments: 1- the n and 2- the ā.

10.1.13.1. The substitution of the l for the n:

"Waqafu fiḥā ʾuṣaylālān ʾusāʾiluhā ʾayyat ʿawāban wa-mā bi-l-rabīʿi min ʾaḥād. "I stopped in it a short time at evening, questioning it [about its inmates]: it was unable to answer, nor was any one in the abode".

10.1.13.2. The substitution of the l for the ā:
An example is ʾilṭaḡaʾa in which the l is substituted for the ā of the base form ʾidṭaḡaʾa "to lay down to sleep" (cf. Åkesson, Ibn Masʿūd 334: fol. 35b). The example fa-ʾṭaḡaʾe is found in this verse said by Manẓūr b. Murtūd al-Asadī (cf. Fischer/ Braūnlich, ʿSawāḥīd 134) describing a wolf that meant to catch a gazelle. It is cited by Ibn Ğinnī, Sirr I, 321, Ḫaṣāʾiṣ I, 63, 263, III, 163, Zamahšārī, 176, Ibn Yaʿīš, IX, 82, X, 46, Mulūkī 216, Ibn ʿAqīl, II, 548, Ibn ʿUṣfūr, I, 403, Suyūṭī, Aṣbāḥ I, 601, Ibn Manẓūr, IV, 2554, Howell, IV, fasc. I, 848, 1368, Åkesson, Ibn Masʿūd 368: (371):

"Lammā raʾāʾ an lā daʿah wa-lā šībaʾ mālaʾ ilāʾ arṭāṭi ḥiqfīn fa-ʾṭaḡaʾe".
"When he [sc. the wolf] saw that there was no ease, and no glutting of his appetite [in the pursuit of the gazelle], he turned aside to an Aršt tree of a curving tract of sand, and lay down to sleep."

10.1.14. The substitution of the \( z \)

The \( z \) can be substituted for the following segments: 1- the \( s \) and 2- the \( ş \).

10.1.14.1. The substitution of the \( z \) for the \( s \):

An example is yazdulu in which the \( z \) is substituted for the \( s \) of the base form yasdulu "he losens (his garment)" (cf. Ibn Ğinnī, Sirr 1, 196, Zamāḥšārī, 177, Ibn Yaḥīa, X, 52, Ibn Manṣūr, III, 2036, Åkesson, Ibn Masʿūd 334: fol. 35b, Howell, IV, fasc. I, 1381).

10.1.14.2. The substitution of the \( z \) for the \( ş \):

An example is fazdī in which the \( z \) is substituted for the \( ş \) of the base form faṣdī "my way of bleeding". This substitution is carried out when the \( z \) is vowelless and occurs before a \( d \). The example fazdī occurs in this phrase said by Ḥatim when he had slaughtered a she-camel for a guest and he was asked: "Why did you not bleed her?", and he answered: hākadā fazdī ʿanah "This is my way of bleeding, mine" (cf. Zaḡḡāḡī, Maḡālis 136, Zamāḥšārī, 177, Ibn Yaḥīa, X, 52, Åkesson, Ibn Masʿūd 334: fol. 35b, Howell, IV, fasc. I, 856, 1383), with this substitution taking place in faṣdī resulting in fazdī.

10.1.15. The substitution of the \( t \)

The \( t \) can be substituted for the \( t \).
10.1.15.1. The substitution of the \( t \) for the \( t \):

This substitution is necessary if the \( t \) follows one of the segments of covering, namely the \( s \), \( d \), \( t \) and \( z \) (for the segments' characters see par. 2.2.2.). This occurs in two cases:

- In Form VIII \( \text{\'ifta'\c{c}ala} \) in which the 1st radical is a segment of covering, e.g. Form VIII \( \text{\'i\c{s}\c{t}bara} \) in which the \( t \) is necessarily substituted for the infixed \( t \) of the base form \( \text{\'i\c{s}\c{t}bara} \) "to have patience" (cf. Åkesson, *Ibn Mas\c{c}\c{u}d* 334: fol. 35b and this study par. 2.4.1.3.2.: 4), \( \text{\'id}t\c{a}raba \) underlyingly \( \text{\'id}t\c{a}raba \) "to be in a state of agitation" (cf. par. 2.4.1.3.2.: 5), \( \text{\'i}tt\c{a}laba \) originaly \( \text{\'i}tt\c{a}laba \) "to seek" (cf. par. 2.4.1.3.2.: 6), and \( \text{\'i}\c{z}t\c{a}lama \) "to put with wrong" underlyingly \( \text{\'i}\c{z}t\c{a}lama \) (cf. par. 2.4.1.3.2.: 7).

- In some cases of verbs in the perfect of which the 3rd radical is one of the segments of covering, to which the agent pronoun of the 1st or of the 2nd person of the perfect, namely the -\( tu \) or the -\( ta \) respectively, is suffixed to, e.g. \( \text{fa\c{h}a\c{s}tu} \) in which the \( t \) is substituted for the \( t \) which is the suffixed agent pronoun of the 1st person of the sing. of \( \text{fa\c{h}a\c{s}tu} \) "I scraped a hollow" (cf. Sibawaihi, II, 341, Ibn Ğinnî, *Sîrî I*, 219-220, Zamah\c{s}ari, 176, Ibn Ya\c{c}i\c{s}, X, 46-48, Ibn cU\c{s}fûr, I, 360-361, Åkesson, *Ibn Mas\c{c}\c{u}d* 334: fol. 35b, Howell, IV, fasc. I, 1369-1370, Vernier, I, 356).

Other examples are \( \text{\c{h}afiz\c{t}u} \) and \( \text{\c{h}afiz\c{t}a} \) said instead of \( \text{\c{h}afiz\c{t}u} \) "I kept" and \( \text{\c{h}afiz\c{t}a} \) "you kept" respectively and \( \text{\c{h}us\c{t}u} \) and \( \text{\c{h}us\c{t}a} \) said instead of \( \text{\c{h}us\c{t}u} \) "I sealed" and \( \text{\c{h}us\c{t}a} \) "you sealed" respectively.
10.2. Conclusion

As Chapter 10, which treats the substitution of the fifteen segments is distinct from all the other chapters, the work may be said to end with it.

As we have observed, the substitution is carried out mostly between two segments that are close in the point of articulation or that are akin in character. The hamza (cf. 10.1.1.), the glides: the y (cf. 10.1.8.), the w (cf. 10.1.9.), the ā (cf. 10.1.12.), and the infix t of Form VIII (cf. 10.1.15.) are more subjected to the substitution than any other segment.

Some of the cases that touch the hamza have been already studied in the chapter treating the phonological changes that are due to the hamza (cf. chapter 4.), those touching the glides have been studied in the chapter referring to the soundness or the unsoundness of the glide (cf. chapter 9.) and those touching the infix -t of Form VIII have been studied in the chapter of the assimilation (cf. chapter 2.).

Most of the cases of substitution are due to a specific heaviness in the word, whether it concerns a segment itself, a vowel on a glide, or a combination of two segments.

Some examples of segments that are considered as heavy are, e.g. the guttural segment c in ādāc that is substituted by the lighter i resulting in ādāci (cf. 10.1.8.6.), the t marker of the fem. in pause that is substituted by the lighter h, e.g. Ṭalḥah said instead of Ṭalḥat "Ṭalḥa" (cf. 10.1.7.4.) and the alif mamdūda in pause that is substituted by the h, e.g. ḥayyahalah "come along!" said instead of ḥayya halā (cf. 10.1.7.2.).
Some examples of vowels that are found heavy on a glide, which explains why the hamza is substituted for the glide, are the َلَامَة vowelling the ِم in َمُغُّٰحُن that becomes ِمُغُّٰحُن "faces" (cf. 10.1.1.2.2) and the َأَتَى vowelling the ُي in َيَدَآیِه "his hands" that becomes َيَدَآیِه (10.1.1.3.1). An example of a heavy combination of two segments is the vowelless nasal ِن followed by the vowelled rigid ِب in َقَنْبَرُن "a warehouse" resulting in the substitution of the ِم for the ِن, i.e. َقَمْبَرُن (cf. 10.1.10.3.).

The vowel preceding a glide plays also a role in the segment's substitution by another segment. For instance, the vowelless ِم in َمِوْقَتُن "time appointed for performance of an action" is changed into ِي because of the influence of the kasra preceding it, i.e. َمِيْقَتُن (cf. 10.1.8.2.), the ِق in َدَافَدِی is changed into ِی, i.e. َدَافَدِیی also due to the kasra preceding it (cf. 10.1.8.6.), and the ِي in the verb in the imperfect of Form IV َیُوسَرُن is changed into ِم, i.e. َیُوسَرِی "is well off" due to the influence of the َلَامَة preceding it (cf. par. 10.1.9.2.).

Some cases of substitution are due to the usage of a certain dialectal variant, e.g. the substitution of the ِت for the ِس, e.g. ِلِنَمَسٰی said instead of ِلِنَمَی by the Yemenites (cf. 10.1.3.3.), the substitution of the ِم for the ِل, e.g. the definite article َوْدَم said instead of َوُلَب by the ُتَابَی and ُهَیمْیَر (cf. 10.1.10.2.) and the substitution of the ِج for the ِی, e.g. َمُعَلَّجَی "مُعَلَّج" said instead of َمَعَلٰی by the ُقَعَدًا, ُبنُعتَمَیم and ُبَنُعتَسَد (cf. 10.1.5.1.). Other cases of substitution are due to a metric exigency as the substitution of the ِی for the ِت in ِلِتَلِی "the third" that is said in-
stead of *l-ṭāl(i)ī*, so that the word rhymes with *tubālī* in the verses that have been mentioned there (cf. 10.1.8.10.).
I. Literature

I.1. Primary sources

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