

THE PHONOLOGICAL SYSTEM OF THE BERBER  
DIALECT OF AJDIR (RIF AREA OF MOROCCO)

by

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## ABSTRACT

The purpose of this thesis is to carry out a phonemic analysis of a specific Berber dialect so as to be able to commit spoken material from this dialect to written form. The main aim therefore was to lay the foundations for a practical orthography for synchronic purposes. The dialect chosen for study is that of the investigator, namely of the village of Ajdir in the <sup>y</sup>ig<sup>z</sup>annayan tribal area of North Eastern Morocco. In addition to the main body of lexical items based on the investigator's own experience as a native speaker, a quantity of taped material was also collected in the field and subjected to phonemic analysis in terms of the investigator's own idiolect. A description of the system was then carried out on the basis of minimal pairs. All lexical items used for the description of the sounds and for the establishment of minimal oppositions were tape-recorded and are reproduced on a cassette which accompanies the thesis.

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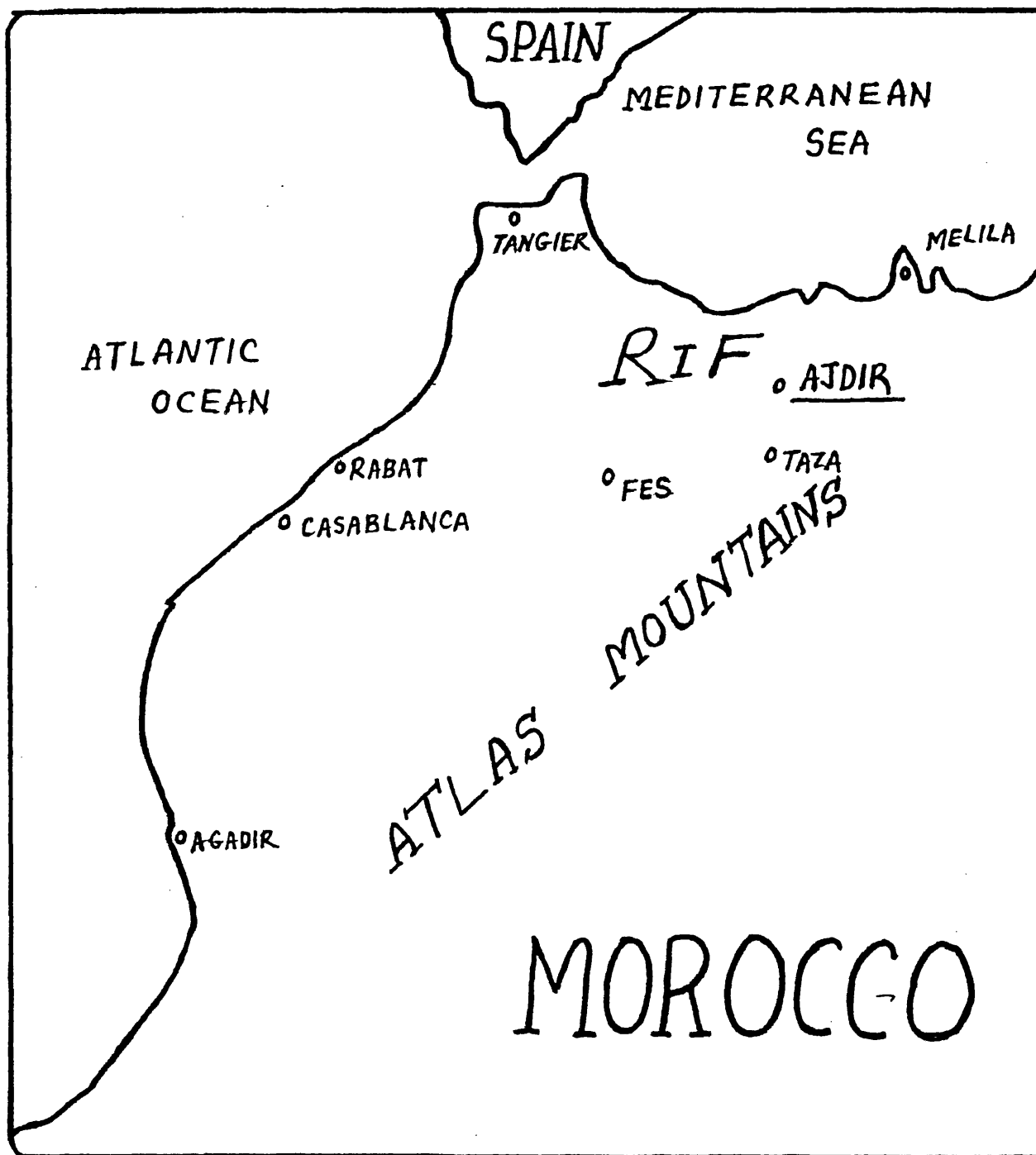
Secondly, I am indebted to Dr J.F.G. Bynon who supervised the writing of this thesis. My gratitude to him is beyond expression for his valuable help and constant encouragement and care. Without his guidance and helpful advice this study would not have been done. I owe him also much of my training in Berber linguistics. Thirdly, special thanks go to my father Haj Abdelkader Ben Abdeslam, my mother Hassani Mimouna and my cousin Ahmed Ben Rahal who have contributed their valuable time as informants.

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TO IMAZIGHEN WHEREVER THEY ARE.

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MAP OF MOROCCO



## INTRODUCTION

The purpose of the present thesis is to devise a practical orthographic system for a specific dialect of Berber spoken in the Rif area of Morocco. While various systems of analysis have been devised, for instance the prosodic analysis of the Firthian School in Britain or the generative phonology currently fashionable in America, only a segmental analysis of the type described by Trubetzkoy and his successors is really capable of producing a practical orthography for committing to written form a previously unwritten language. Of course such a practical system may be to a lesser or greater extent morphophonemic, and the decision as to exactly where to draw the line between phonemics and morphophonemics is likely to be a practical one based on the actual experience of committing the language in question to writing. However, whatever the number of morphophonemic representations are finally adopted, any such system must in the first instance depend upon a traditional phonemic analysis. I have used as models in my approach two works in particular; the first is by A. Martinet (La Description phonologique, avec application au parler franco-provençal d'Hauteville, Savoie, Paris, Minard, 1956), the second is by A. Cohen (The Phonemes of English, The Hague, Martinus Nijhoff, 1952). Of course I have not been able to solve

all the problems of the phonology of the dialect being studied. Three areas in particular are not treated here, areas so interdependent of each other that they cannot be resolved in isolation. These are: the syllabic structure of the word, the questions of clusters and neutralization and the problem of schwa insertion. However, although these are all important problems of the phonology of any Berber dialect, they are not vital for the question of devising a practical orthography. The main problems regarding syllable structure concern syllable centres where these are non-vocalic (syllabic fricatives, etc.) and the exact location of syllable boundaries. This latter problem is closely interconnected with the question of clusters and neutralization. Finally, schwa insertion is again an important problem to be solved, and the rules governing it must be the subject of continued research. However, the important point is that I have not been able to find a single minimal pair based solely on the presence or absence of a schwa and it is therefore to be assumed that schwa is not a phoneme and should not therefore be written in a practical orthography of the language.

The dialect I have studied in the present thesis is that of the village of Ajdir. Ajdir is situated in the tribal area of ig<sup>y</sup>zənnayən (Ar. gzennaya), at a distance of approximately 100 kilometres to the north-east of the provincial capital of Taza. The inhabitants

of Ajdir belong to the *iharasən* clan, which is a part of the tribe of *ig<sup>y</sup>zənnayən*. Furthermore, even in a community as small as Ajdir (approximately 3,000 inhabitants) there is unlikely to be complete homogeneity between the phonemic systems of the various inhabitants. I have therefore used my own idiolect as the basis for my analysis. It would naturally be interesting to compare this with the systems employed by other sections of the community and other age groups (born in 1952, I am 28 years old). The differences however are likely to be small, and above all systematic, and therefore do not concern us in the devising of a practical orthography. The method I have used in my analysis is as follows: during the summers of 1978 and 1979 I spent two periods in the area of Ajdir making tape recordings of my friends and relatives telling and explaining folktales and other genres of oral literature, the local dialects, etc. I have to a large extent transcribed the content of these tapes in my own phonemic system, and from them I have extracted the lexical items which, supplemented by my own experience as a native speaker of the dialect in question, have formed the basis of the present analysis. These items were transferred to two card indexes, one of minimal pairs and one of patterns.

Naturally the ideal would have been to have found minimal pairs contrasting each consonant or vowel segment with all the other segments of the system for every

environment. This ideal situation has not in fact been realized. I have however been able to find minimal pairs for most segments for any particular point or manner of articulation where a single feature opposition (voiced - voiceless, plosive - fricative, emphatic - non-emphatic, labialized - nonlabialized and palatalized - nonpalatalized) is involved. The opposition geminate - nongeminate appears originally to have been a morphological one. However, it is now so closely interrelated with the phonemic system that I have also dealt with it in the list of minimal pairs.

## CHAPTER ONE

## THE PHONEMIC SYSTEM

As we shall show, in our analysis the phonemic system of the idiolect which is the subject of the present study comprises 48 phonemes. Although we have not made a study of these in terms of manner of articulation or of acoustic features, nor attempted to describe their allophonic variants, we have given a brief description of each to allow them to be identified.

The system comprises six vowels:

1. A close front vowel, which is represented in our system by the symbol i. This sound is found in such words as:

izan : 'flies',  
əaziri : 'moonlight',  
ari : 'alfa';

2. A mid front vowel which we represent by means of the sign e. This segment exists in such words as:

eriž : 'embers',  
əeža : 'dreams',  
aəbe : 'pigeon';

3. A short open vowel, represented by the sign a. We find this vowel in, for instance, the following words:

ayi : 'buttermilk',  
mani : 'where';  
fa : 'to yawn';

4. A long open vowel, represented by the sign α, which occurs in such words as:

an : 'flour',  
asγαθ : 'share',  
α : 'leg';

5. A mid back vowel, represented by the symbol o, which is found in such words as:

oθan : 'orchard',  
toha : 'man's nickname',  
aqso : 'peel';

6. A close back vowel, represented by the sign u. This sound is found in, for example, the following words:

uma : 'my brother',  
arumi : 'a Christian, a European',  
furu : 'string'.

Besides the vowels, there are two semi-vowels:

7. A front semi-vowel, represented by y. We find this segment non-geminate in, for instance:

yiss : 'horse',  
ḡaya : 'that's all',  
niy : 'to mount a horse',

and geminate in:

ḡayya : 'black woman servant; female slave',  
zziyy : 'to milk a cow, a goat, etc...', etc.

Non-geminate y occurs in all positions but, whereas geminate yy is found in intervocalic and syllable-final positions, we have not been able to find any example with yy in initial position.

8. A back semi-vowel, represented by the sign w. It occurs non-geminate in, for example, the following words:

wami : 'when',  
waqila : 'perhaps',  
awaṭani : 'a nationalist',  
aqawqaw : 'a person who stutters in his speech';

and geminate in:

awwam : 'alfa grass'.

Non-geminate w exists in all positions, whereas geminate ww seems to occur in intervocalic position only.

In addition to these vowels and semi-vowels, we have identified 42 consonants in the system of Ajdir:

9. A voiceless bilabial plosive, represented by the sign p. This is found non-geminate in such words as:



paxita : 'masturbation',  
aspanyu : 'spaniard',  
spaθina : ' tennis shoes',  
paʃpo : 'passport';

and geminate in, for example:

ʃappa : 'hoe',  
pappa : 'bread (nursery language)',  
puppuḥ : 'man's nickname'.

Non-geminate p and geminate pp occur initially and intervocalically but I have not found any example of their occurrence in final position. The sound p is also found in nicknames and animal calls as in:

punto : 'man's nickname',  
pr̥r : 'a call used to attract the attention of cows and calves before serving them grass or hay'.

10. A voiced bilabial plosive, represented by means of the symbol b. This segment exists non-geminate in such words as:

baba : '(my) father',  
abaqʒiʒ : 'cockroach',  
rəsbab : 'reason; justification';

and geminate in:

bb̥ : 'to put',  
qubbu : 'bucket',  
kəbb : 'to pour'.

11. A labiodental fricative, represented by means of the symbol f. This sound of which there is no voiced counterpart in this system is found non-geminate in, for instance, the following examples:

fafa : 'to look for',

faq : 'to wake up',

afunas : 'ox',

ʒʒuf : 'chest';

and geminate in:

ffaɣ : 'to go out',

kuffu : 'foam',

suff : 'to wet'.

Non-geminate f and geminate ff occur initially, intervocalically and finally.

12. A non-emphatic voiceless dental plosive, represented by the symbol t. This segment exists non-geminate in such words as:

tari : 'she writes',

ḥatita : 'pancakes',

ərbit : 'room';

and geminate in:

tta : 'to beg',

aʃtattu : 'the name of a clan in Ajdir'.

We find non-geminate t in all positions and geminate tt initially and intervocalically, but we have not been able to find any example of it in final position.

13. A non-emphatic voiced dental plosive which we represent by means of the sign d. This segment exists non-geminate in, for example:

daddu<sup>✓</sup> : 'walk! (nursery language)',  
də<sub>em</sub>u<sup>✓</sup> : 'man's nickname',  
aida : 'a little worm found in water drawn  
 from wells and springs',  
rid : 'it is not ...';

and geminate in:

ddin : 'religion',  
əaddə<sub>θ</sub> : 'house',  
badd : 'stand!, stand up!, etc.'.

Non-geminate d and geminate dd occur in all positions.

14. A voiceless dental fricative, represented by the symbol θ. It is found non-geminate in such words as:

θa : 'this one (talking about a female)',  
θarə<sub>b</sub> : 'to roof a house',  
iθri : 'star',  
qaθ : 'there he is'.

We find non-geminate θ in all positions.

Geminate θθ does not seem to occur at all in the system of this dialect.

15. A non-emphatic voiced dental fricative, which we

represent by means of the sign ð. This segment exists non-geminate in such words as:

ðusid : 'she came',  
ðara : 'spring (of water)',  
aðan : 'intestines',  
ɛað : 'yet';

and geminate in at least one word:

aððan : 'brushwood'.

We find non-geminate ð in all positions. In the only example we have found of geminate ðð, it is in intervocalic position.

16. An emphatic voiceless dental plosive which we represent by means of the symbol t̥. This sound exists non-geminate in, for instance:

t̥uha : 'man's name',  
aṭaṣ : 'a lot',  
ðit̥ : 'eye';

and geminate in:

t̥t̥ɔf : 'piece',  
aṭṭan : 'illness that affects the eyes',  
ṣaṭṭ : 'what is left over after eating or sharing out something'.

Non-geminate t̥ and geminate t̥t̥ are found in all positions.

17. An emphatic voiced dental plosive, represented by means of the sign d̥. It is found non-geminate in, for example:

ḍar : 'to hurt',

ḍḍho : 'afternoon prayer';

and geminate in, for instance:

ḍḍaq : 'to refrain from talking to a person  
because of a *disagreement*'.

We have not been able to find any example of either non-geminate ḍ or geminate ḍḍ in intervocalic and final positions.

18. An emphatic voiced dental fricative, represented by the symbol ḏ. This segment occurs non-geminate in such words as:

ḏo : 'to fly',

ḏα : 'leg',

ərqaḏi : 'judge',

ḏaḏ : 'finger', etc.

While non-geminate ḏ occurs in all positions, we have not been able to find any example of geminate ḏḏ.

19. A bilabial nasal which we represent in our system by means of the symbol m. It is found non-geminate in such words as:

maša : 'but',

maγα : 'why',

ḏamαθ : 'beard (diminutive form)',

axxam : 'room';

and geminate in:

- m̥mar : 'to show; to advise; to supervise;  
to teach',  
ðammoθ : 'land; country',  
ʒumm : 'to fast', etc.

Non-geminate m and geminate mm both occur in all positions.

20. An alveolar nasal, represented by means of the sign n. This segment is found non-geminate in, for instance:

- nam : 'to get used to',  
nunʒa : 'woman's name',  
mani : 'where',  
aman : 'water';

and geminate in:

- nniyyæθ : 'goodwill',  
innas : 'he told him',  
hənn : 'to be clement', etc.

We find geminate n and non-geminate nn in initial, intervocalic and final positions.

21. A velar nasal, which we represent in our system by means of the symbol ŋ. It occurs non-geminate in, for example:

- ŋiðæʃ : 'of sleep',  
ŋifri : 'of the cave';

and geminate in:

nniɣzɑ : 'of the river'.

Neither non-geminate n nor geminate nn appear to occur in intervocalic or final positions.

22.A *labialized* velar nasal, which we represent in this system by means of the symbol n<sup>w</sup>. This segment is found non-geminate in, for example:

n<sup>w</sup>a : 'my brother',

an<sup>w</sup>a : 'Oh my brother!';

and geminate in:

nn<sup>w</sup>iɣ : 'I am tired of sitting; I am hot  
and restless because of lack of  
action',

inn<sup>w</sup>a : 'he is tired of sitting; he is  
very hot and very restless because  
of lack of action',

nn<sup>w</sup> : 'Be cooked!'.

Non-geminate n<sup>w</sup> is found initially, intervocalically but not finally. Geminate nn<sup>w</sup> is found in the same two positions and is also perhaps syllabic in the last example.

23. A lateral alveolar liquid, represented by the symbol l. It is found non-geminate in words such as:

listiqlal: 'independence',

lxaɬe : 'man's name',

aliman : 'Germany',  
buqllal : 'a village in the Rif (ssəfθ n-  
buqlla1)';

and geminate in:

llif : '(my) love, (my) sweetheart',  
ralla : 'madam'.

Non-geminate l occurs in all positions whereas I have found no example of geminate ll in final position.

24. A rolled alveolar liquid, which we represent in this system by the sign r. It is found non-geminate in, for example:

rumm : 'hay',  
raman : 'security; peace',  
arahhəd : 'come here!',  
qar : 'shut up!';

and geminate in:

rra : 'order shouted to a donkey to make  
it go',  
arra : 'idem',  
prrr : 'an animal call used to attract the  
attention of cows and calves, etc. ...  
before serving them grass, hay or  
some other feed'.

We find non-geminate r in all positions. All the examples we have been able to find of geminate



rr are in animal calls, other examples are:

qrr or xərr : 'a call used to chase away  
cows and calves, etc.... or  
prevent them from eating  
something'.

25. An emphatic alveolar lateral, which we represent in the system of this dialect by means of the sign l̥. It is found non-geminate in, for instance:

l̥al̥laʃ : 'foot (nursery language)';

and geminate in such words as:

l̥l̥ah : 'God',

al̥l̥ah : 'Oh God!'.  
Non-geminate l̥ does not seem to occur intervocally or finally whereas there are no examples of geminate l̥l̥ finally. Geminate l̥l̥ is found especially in nursery words and in words that stem from the Arabic word l̥l̥ah meaning 'God' as, for instance:

wl̥l̥ah : 'by God!',

l̥l̥ahinu : 'my God',

al̥l̥ah : 'Oh God!', etc.

26. An emphatic rolled alveolar liquid, represented by the symbol r̥. It occurs non-geminate in, for example, such words as:

raṛ : 'hunger, famine',

aṛaq : 'place, seat',

aṛumi : 'a Christian, a European', etc.

and geminate in:

tərr : 'exclamation of discontent and displeasure'.

I have not been able to find examples of non-geminate r in final position and of geminate rr in initial and intervocalic positions.

27. A non-emphatic voiceless alveolar fricative, which we represent by the symbol s. It is found non-geminate in such words as:

su : 'to drink',

ḡasa : 'liver',

qas : 'to taste',

and geminate in:

ssu : 'to spread out a carpet',

ḡassuḡ : 'blankets, carpets and mats',

ḡuss : 'to feel', etc.

Non-geminate s and geminate ss occur in all positions.

28. A non-emphatic voiced alveolar fricative, we represent by the symbol z. It is found non-geminate, for instance, in such words as:

zawəg : 'to implore',

zawə : 'to insult',

ḡaza : 'Taza, a provincial capital in  
Northern Morocco',

inez : 'ankle';

and geminate in:

zzif : 'handkerchief',

izza : 'heartburn',

seizz : 'to express love, affection and  
friendship towards a person'.

Non-geminate z and geminate zz occur in all  
positions.

29. A non-emphatic voiceless palato-alveolar fricative  
which we represent in our system by means of the  
symbol ṣ̌. This segment occurs non-geminate in,  
for instance, such examples as:

ṣ̌αṣ̌ : 'to be a partner with; to share',

iṣ̌ari : 'ram',

ariṣ̌ : 'hair (of a man); feathers';

and geminate in:

ṣ̌ṣ̌αq : 'east',

aṣ̌ṣ̌ir : 'yogurt',

həṣ̌ṣ̌ : 'to cut grass', etc.

Non-geminate ṣ̌ and geminate ṣ̌ṣ̌ are found in  
all positions.

- 30 A non-emphatic voiced palato-alveolar fricative,  
represented by means of the sign ẓ̌. This sound  
is found non-geminate in, for example, such words as:

žarəb : 'to try',

ažaθir : 'mat',

hažuž u mažuž : 'mythical people of small height';

and geminate in:

žžawi : 'incense',

ažžar : 'widower',

sižž : 'to peep', etc.

Non-geminate ž and geminate žž are found in all positions.

31. An emphatic voiceless alveolar fricative which we represent in our system by means of the symbol ʃ. This segment is found in, for instance, such words as:

ʃuθ : 'to blow',

θaʃoθ : 'a verse of the Koran',

aʃaʃ : 'a lot';

and geminate in:

ʃʃaf : 'change',

iʃʃαθ : 'he hid him; he did not betray him', etc.

We find non-geminate ʃ in all positions, whereas for geminate ʃʃ we could not find any example of its occurrence in final position.

32. An emphatic voiced alveolar fricative, represented by the sign ʒ. This sound occurs non-geminate in, for example, such words as:

ziyyα : 'to tighten',

zo : 'to visit the tomb of a saint;  
to kiss',

izi : 'gall-bladder',

raz : 'hunger';

and geminate in:

zziy : 'to milk',

izzan : 'excrement',

təzz : 'exclamation expressing discontent', etc.

Non-geminate z and geminate zz occur in all positions.

33. An emphatic voiceless palato-alveolar fricative, represented by the sign ṣ̌. This sound is found non-geminate in such words as:

ṣ̌awα : 'to consult',

aṣ̌aqo : 'axe',

aṣ̌awið : 'old piece of cloth';

and geminate in:

ṣ̌ṣ̌α : 'to fill',

uṣ̌ṣ̌ay : 'greyhound',

muṣ̌ṣ̌ : 'cat', etc.

No examples of non-geminate ṣ̌ occurring in final position have been found whereas geminate ṣ̌ṣ̌ exists in all positions.

34. An emphatic voiced palato-alveolar fricative, which we represent by the sign ẓ̌. This sound is found

non-geminate in, for instance, such words as:

ǰawα : 'to copulate (said of animals)',

ǰar : 'to drag oneself',

ǰaǰra : 'backside';

and geminate in:

ǰǰαf : 'ravine',

aǰǰα : 'neighbour', etc.

We could not find examples of non-geminate ǰ or geminate ǰǰ in final position.

35. A voiceless palato-alveolar affricate, which we represent by the sign č. This segment occurs non-geminate in, for example, such words as:

čənčana : 'tambourine',

aniči : 'shepherd',

ǰamǰač : 'egg',

ǰayyuč : 'ass';

and geminate in:

čča : 'to press',

iččaθ : 'he pressed it'.

Non-geminate č occurs in all positions, whereas geminate čč occurs initially, and intervocalically but I have found no cases of its occurrence in final position.

36. A voiced palato-alveolar affricate, which we represent in this system by means of the sign ǰ. This

sound occurs non-geminate in, for instance, such words as:

ǵayǵa : 'there was',  
aɛiǵiw : 'a filthy dirty person',  
zzagǵ : 'to pray';

and geminate in:

ǵǵaz : 'to get hungry',  
maǵǵa : 'a kind of bird',  
arxǵǵ : 'vinegar', etc.

Both non-geminate ǵ and geminate ǵǵ are found in all positions.

37. A voiceless velar plosive, which we represent by means of the symbol k. This segment occurs non-geminate in, for instance:

kuffu : 'foam',  
karǽ : 'to read the Koran over and over and  
 memorise it',  
muka : 'owl',  
zzayǽk : 'from you';

and geminate in:

kkǽ : 'to get up; to wake up',  
sakku : 'bisac',  
sǽkk : 'to send', etc.

Non-geminate k and geminate kk occur in all positions.

38. A voiced velar plosive, which we represent by the sign g in our system. This sound is found non-geminate in such words as:

garru : 'cigarette',  
agaži : 'the act of joining the army',  
zawəg : 'to implore';

and geminate in:

ggα : 'to bake bread',  
ḡggaz : 'tattooing', etc.

We find non-geminate g in all positions but, whereas geminate gg occurs initially and intervocally we have not found any example of its occurring finally.

39. A labialized voiceless velar *plosive*, which we represent in our system by means of the symbol k<sup>w</sup>. This occurs geminate in, for instance:

kk<sup>w</sup>α : 'to insult',  
ḡikk<sup>w</sup>ra : 'insulting'.

I have not been able to find any example of non-geminate k<sup>w</sup> in the dialect of Ajdir.

40. A labialized voiced velar *plosive*, which we represent in this system by means of the sign g<sup>w</sup>. This consonant occurs non-geminate in, for instance:

g<sup>w</sup>ə : 'to knead bread',  
zug<sup>w</sup>aθ : 'to grow tall',



and geminate in:

ḡaḡugg<sup>w</sup>ač : 'mother in law'.

Non-geminate g<sup>w</sup> occurs initially and intervocalically, whereas I have not been able to find any example of geminate gg<sup>w</sup> in initial position.

41. A voiceless palatal fricative, which we represent by the sign k<sup>y</sup>. This segment is found non-geminate in, for example:

ak<sup>y</sup>sum : 'meat',

sak<sup>y</sup>su : 'couscous', etc.

In all the examples of <sup>non-</sup>geminate k<sup>y</sup> that I have found, it occurs medially. Geminate kk<sup>y</sup> does not seem to occur in this system.

42. A voiced palatal fricative, which we represent in this system by means of the symbol g<sup>y</sup>. This sound is found non-geminate in, for instance:

g<sup>y</sup>ma : 'to hunt',

ag<sup>y</sup>me : 'landmark; stones indicating the limits of an estate';

and geminate in:

gg<sup>y</sup>α : 'to bake bread',

igg<sup>y</sup>α : 'field',

agg<sup>y</sup> : 'put! make!', etc.

Non-geminate g<sup>y</sup> is found initially and intervocalically but not finally, whereas geminate gg<sup>y</sup> occurs in all positions.

43. A voiceless uvular fricative, which we represent in this system by means of the sign x. This sound occurs non-geminate in, for instance:

xαbuš : 'man's nickname',  
xaxα : 'to feel exhausted',  
sax : 'to be washed away by the rain (soil)';

and geminate in:

xxαʔ : 'to have sexual intercourse (vulgar)',  
ixxan : 'excrement (pl.; vulgar, replaced by  
ərḥanni 'henna' in polite use)',  
ixx : 'exclamation of disgust on smelling  
something unpleasant, or on seeing  
something outrageous', etc.

Both non-geminate x and geminate xx occur in all positions.

44. A voiced uvular fricative, which we represent in this system by means of the sign γ. This consonant is found non-geminate in, for example, such words as:

γα : 'to study; to read',  
aγi : 'buttermilk',  
anəγnay : 'a person who speaks through his  
nose';

and geminate in:

γγam : 'to give a gift of money to the  
bridegroom',

ḡayγasθ : 'a sheep or cow slaughtered as a sacrifice'.

Non-geminate γ occurs in all positions. Geminate γγ occurs initially and intervocalically but has not been found finally.

45. A voiceless uvular plosive, represented in this system by means of the sign q. This segment is found non-geminate in such words as:

qabu : 'walking stick',

aqaq̣aṣ : 'pair of wool-cards',

ḡssaq : 'glue';

and geminate in, for example:

qqu : 'to have sexual intercourse (vulgar)',

qaqqa : 'candy (nursery language)'.

While non-geminate q is found in all positions, I have not been able to find any example of geminate qq in final position.

At least one labialized uvular exists in the dialect of Ajdir which we represent by the sign γ<sup>w</sup>. I have only found one word containing this sound in this system, namely:

ḡay<sup>w</sup>ggat : 'woman's belt'.

I have not been able to find any example of its geminate counterpart \*γγ<sup>w</sup>, nor of \*q<sup>w</sup>, \*qq<sup>w</sup>, \*x<sup>w</sup> and \*xx<sup>w</sup>.

46. A voiceless pharyngeal fricative, which we represent in this system by the symbol ħ. This sound is found non-geminate in, for example:

ħawər : 'be careful with; take care of',

waħit : 'one',

irah : 'he went; he left';

and geminate in:

ħħan : 'to cover; to protect as for instance  
a bird protecting its offspring  
with its wings',

iħħaθ : 'he hid'.

While non-geminate ħ occurs in all positions, I have not been able to find any example of geminate ħħ in final position.

47. A voiced pharyngeal fricative, represented here by the sign ʕ. We find this segment non-geminate in such words as:

ʕara : 'to uncover',

aʕawir : 'a famous battle during the Rifian War',

qaʕ : 'at all'.

I have not been able to find any example of geminate ʕʕ in any position.

48. A voiced glottal fricative, represented in this system by h. It is found non-geminate in, for instance:

haž : 'to rage',

ahakus : 'one shoe'.

Geminate hh does not appear to occur in the dialect of Ajdir.

## CHAPTER TWO

## THE VOWEL SYSTEM

As we have said, the system of Ajdir has six vowel phonemes namely: /i/; /e/; /a/; /α/; /o/ and /u/.

1. The phonological status of /i/ in relation to the other vowel phonemes can be shown from the following oppositions:

### 1.1 /i/ ≠ /e/

/iɔ̌(a)/	: 'nowadays',
/eɔ̌/	: 'wear!'.
/((əas)riθ/	: 'bride',
/((əaf)reθ/	: 'skin on surface of milk'.
/si/	: 'title given to the notables of a tribe',
/se/	: 'go!'.

### 1.2 /i/ ≠ /a/

/iri/	: 'neck',
/ari/	: 'alfa'.
/amin/	: 'amen',
/aman/	: 'water'.
/mani/	: 'where',
/mana/	: 'what'.

1.3. /i/ ≠ /α/

/inu/	: 'mine',
/αnu/	: 'well (of water)'.
/ðira/	: 'writing',
/ðara/	: 'she gave back'.
/xzi/	: 'to curse Satan',
/xzα/	: 'to look'.

1.4. /i/ ≠ /o/

/iθ(ran)/	: 'stars',
/oθ(an)/	: 'orchards'.
/şşif/	: 'summer',
/şşof/	: 'to step over'.
/izi/	: 'gall-bladder',
/izo/	: 'he visited the tomb of a saint.'

1.5. /i/ ≠ /u/

/irinu/	: 'my neck',
/urinu/	: 'my heart'.
/urif/	: 'kebab dish',
/uruf/	: 'divorce'.
/iri/	: 'neck',
/iru/	: 'he wept'.

2. The phonemic status of /e/ in relation to the other vowels can be determined from the following oppositions:



2.1. /e/ ≠ /i/

Refer to 1.1. above.

2.2. /e/ ≠ /a/

- /eri(ʒ)/ : 'embers',  
 /ari(f)/ : 'the Rif, a Berber speaking area  
 of Northern Morocco'.  
 /(ða)seθ/ : 'hand quern',  
 /(ðak<sup>y</sup>)saθ/ : 'downhill'.  
 /se/ : 'go!',  
 /((f)sa/ : 'to spread in the sun to dry'.

2.3. /e/ ≠ /α/

- /ṣṣeð/ : 'to help a person dress',  
 /ṣṣαð/ : 'to swallow'.  
 /(a)ze/ : 'name of a medicinal plant',  
 /(iγ)zα/ : 'river'.

2.4. /e/ ≠ /o/

- /ðaḥfeθ/ : 'boys' game',  
 /ðaḥfoθ/ : 'hole in the ground (diminutive  
 form)'.  
 /(a<sup>v</sup>)be/ : 'long robe with sleeves worn  
 by men and women',  
 /(aḥ)bo/ : 'hole in the ground'.

2.5. /e/ ≠ /u/

- /eri(ʒ)/ : 'embers',  
 /uri(f)/ : 'Kebab dish'.

/seθ/	: 'go! (plural)',
/suθ/	: 'drink! (plural)'.
/aze/	: 'name of a medicinal plant',
/azu/	: 'to skin a sheep, a rabbit, etc.'.

3. The phonological status of the vowel /a/ is witnessed by the following oppositions:

3.1. /a/ ≠ /i/

Refer to 1.2. above.

3.2. /a/ ≠ /e/

Refer to 2.2. above.

3.3. /a/ ≠ /α/

/anu/	: 'well (of water)',
/αnu/	: 'add'.
/ðaya/	: 'that's all',
/ðαya/	: 'irrigation ditch'.
/ya/	: 'towards',
/yα/	: 'to study; to read'.

3.4. /a/ ≠ /o/

/aθ(mun)/	: 'haystack',
/oθ(an)/	: 'orchard'.

/azqqa/ : 'olive tree',  
 /(ð)azqqa/ : 'roof'.

### 3.5. /a/ ≠ /u/

/arinu/ : 'my alfa',  
 /urinu/ : 'my heart'.  
 /ðaza/ : 'Taza, a provincial capital in  
           Northern Morocco',  
 /ðuza/ : 'she skinned a sheep, a rabbit,  
           etc. ...'.  
 /ssa/ : 'this way',  
 /ssu/ : 'to spread a carpet'.

4. The phonological status of the vowel /α/ in relation to the other vowels can be established on the basis of the following oppositions:

#### 4.1. /α/ ≠ /i/

Refer to 1.3. above.

#### 4.2. /α/ ≠ /e/

See 2.3. above.

#### 4.3. /α/ ≠ /a/

See 3.3. above.

4.4. /α/ ≠ /o/

/ʃʃαf/	: 'change',
/ʃʃof/	: 'to step over'.
/ʃʃo/	: 'wall',
/ʃʃα/	: 'to hide a person; to keep a secret'.

4.5. /α/ ≠ /u/

/αr/	: 'to vomit',
/ur/	: 'heart'.
/ẓẓαθ/	: 'see him',
/ẓẓuθ/	: 'plant it'.
/ẓẓα/	: 'to see',
/ẓẓu/	: 'to plant'.

5. The phonemic status of /o/ in relation to the other vowels can be shown from the following oppositions:

5.1. /o/ ≠ /i/

Refer to the opposition in 1.4. above.

5.2. /o/ ≠ /e/

See 2.4. above.

5.3. /o/ ≠ /a/

See 3.4. above.

5.4. /o/ ≠ /ɑ/

Refer to 4.4. above.

5.5. /o/ ≠ /u/

/ṣṣo(f)/ : 'to step over',

/ṣṣu(ə)/ : 'to blow'.

/qqo/ : 'to dry up',

/qqu/ : 'to copulate'.

6. The phonological status of the vowel /u/ in relation to the other vowels is determined from the following oppositions:

6.1. /u/ ≠ /i/

Refer to 1.5. above.

6.2. /u/ ≠ /e/

See the opposition in 2.5. above.

6.3. /u/ ≠ /a/

See 3.5. above.

6.4. /u/ ≠ /ɑ/

Refer to 4.5. above.

6.5. /u/ ≠ /o/

Refer to 5.5. above.

## CHAPTER THREE

## THE CONSONANTAL SYSTEM

### A. The semi-vowels

As we have said, this system has a *front* semi-vowel /y/ and a *back* semi-vowel /w/.

7. /y/ The phonological opposition between non-geminate /y/ and geminate /yy/ is shown by the existence of such pairs as:

/y/ ≠ /yy/

/əaya/	:	'that's all',
/əayya/	:	'black woman servant; female slave'.
/aya/	:	'Oh!' (when calling a person); <u>aya ɛri!</u> 'Oh Ali!',
/ayya/	:	'exclamation meaning: "look what you have done", or simply "go away"'.

The phonological status of the phoneme /y/ in relation to the semi-vowel /w/ can be seen from the following oppositions:

/y/ ≠ /w/

/ya(k)/	:	'exclamation meaning "remember this, I will never forget it myself!'",
/wa(h)/	:	'yes'.

- /ðaya/ : 'irrigation ditch',  
 /ðawa/ : 'sons of'.  
 /aḥray/ : 'milled wheat, barley or maize',  
 /aḥraw/ : 'buttermilk mixed with wheat,  
 barley or maize couscous'.

/yy/ ≠ /ww/

- /ayya(w)/ : 'term used by a person's  
 maternal relatives to refer  
 to him and his brothers',  
 /awwa(m)/ : 'alfa grass'.

/y/ ≠ /i/ and /w/ ≠ /u/

Concerning the opposition between semi-vowel /y/ and vowel /i/ and between semi-vowel /w/ and vowel /u/, I have not been able to find any minimal pair in which /y/ contrasts phonemically with /i/ or /w/ with /u/. Nevertheless, that does not prove in any way that /y/ is not phonemically different from /i/ and /w/ from /u/. As a matter of fact, Dr J. Bynon (1978, pp. 294-5) proposes to look for contrast between vowel and semivowel in a different position:

'Another position in which vowel and semivowel may contrast is when a sequence vowel-semivowel or semivowel-vowel occurs medially between consonants. In this environment there is a pertinent opposition between /iy/ and /yi/, /iw/ and /yu/, /uw/ and /wu/, /uy/ and /wi/.



e.g. /at:swim/ "you (m.pl.) will drink"  
 ≠ /at:suym/ "you (m.pl.) will dip/dunk"  
 /at:swimt/ "you (f.pl.) will drink"  
 ≠ /at:suymt/ "you (f.pl.) will dip/dunk",  
 /atswin/ "they (m.) will drink"  
 ≠ /atsuyn/ "they (m.) will dip/dunk",  
 /atswint/ "they (f.) will drink"  
 ≠ /atsuynt/ "they (f.) will dip/dunk",  
 /fšasniyšir:anatswin/ "give something  
 to the children to drink" ≠  
 /fšasniyšir:anatsuyn/ "give something to  
 the children to dip into".

Now it is obvious that if vowel and semivowel were to be represented by the same symbol in such a position, as proposed by Applegate, it would be impossible to predict whether the order were vowel-semivowel or semivowel-vowel.'

As for the opposition between /iy/ and /yi/, /iw/ and /yu/, /uw/ and /wu/, I have not been able to find any example in this system to prove their existence. However, for the opposition between /wi/ and /uy/, I managed to find the following pair:

/zwi/	:	'to sort bad grains from wheat, barley and maize',
/zuy/	:	'a kind of medicinal plant that grows wild'.

If there is no opposition in this pair between /w/ and /u/ and between /y/ and /i/, then it means that we can write both of these words phonemically in the same way as in the following:

/zui/ 

But we cannot do this simply because in that case we will not be able to know which is which. Nevertheless, given that both words have the same environment:

$$\begin{array}{l} /zwi/ \\ /zuy/ \end{array} \begin{array}{c} \diagdown \\ \diagup \end{array} z \text{ --- } \#$$

therefore /wi/ must be different from /uy/ and as a consequence, the vowel /u/ must be phonemically different from the semi-vowel /w/ and /i/ different from /y/.

8. /w/ The phonemic status of the semi-vowel /w/ in relation to /y/ has been demonstrated by the opposition /y/ ≠ /w/ above.

## B. Distribution of vowels with /w/ and /y/

### B.1 Initially

#### B.1.1. yv

/yi/ - Initially the phoneme /i/ appears to be in free variation with /yi/ as in:

/irəs/ or /yirəs/	:	'tongue',
/irəm/ or /yirəm/	:	'skin',
/iss/ or /yiss/	:	'horse',
/irəf/ or /yirəf/	:	'pig',
/isəm/ or /yisəm/	:	'name',
/išš/ or /yišš/	:	'horn',
/insi/ or /yinsi/	:	'porcupine',

/izza/ or /yizza/ : 'heartburn',  
 /ižž/ or /yížž/ : 'one',  
 /izi/ or /yizi/ : 'fly',  
 /iθri/ or /yiθri/ : 'star',  
 /ifri/ or /yifri/ : 'grotto',  
 /ira/ or /yira/ : 'he played'.

/ye/ - The semi-vowel /y/ can be followed by  
 the vowel phoneme /e/ as in:

/yezi/ : 'bee',  
 /yeðan/ : 'wheat'  
 /yeð/ : 'he dressed'.

/ya/ - /y/ can be followed by /a/ as in the  
 following examples:

/yaɾi/ : 'I am very lucky',  
 /yak/ : 'exclamation meaning "re-  
 member this, I will  
 never forget it myself"',  
 /yaɾbbi/ : 'Oh God!',  
 /yazuθ/ : 'he skinned it'.

/ya/ - The vowel /a/ can follow the semi-vowel  
 /y/ as in the examples that follow:

/yasa/ : 'it landed',  
 /yaɾa/ : 'he broke something',  
 /yabu/ : 'he carried somebody or  
 something piggyback',  
 /yazu/ : 'he looked for',  
 /yanu/ : 'he added; he increased  
 the  
 the number or/amount; he  
 overwhelmed somebody in  
 a fight'.

/yo/ - The phoneme /y/ can be followed by /o/ as in:

/yo/ : 'moon'.

/yu/ - /u/ can follow the semi-vowel /y/ as in:

/yuma/ : '(my) brother',

/yuri/ : 'he climbed; he went upstairs',

/yufa/ : 'he found',

/yuš<sup>✓</sup>α/ : 'he stole'.

#### B.1.2. wv

/wi/ - does not occur.

/we/ - does not occur.

/wa/ - The semi-vowel /w/ can be followed by the phoneme /a/ as in:

/waqila/ : 'perhaps',

/walu/ : 'nothing',

/wah/ : 'yes',

/waxxa/ : 'all right',

/wayuriš<sup>✓</sup>a/ : 'he did not write',

/way<sup>✓</sup>ayriš<sup>✓</sup>a/ : 'he did not study; he did not read; he is not educated'.

/wα/ - does not occur.

/wo/ - The vowel phoneme /o/ can follow /w/ as in:

/woθan/ : 'orchard'.

/wu/ - The semi-vowel /w/ can be followed by the vowel phoneme /u/ as in:

/wuzzar/ : 'knife'.

## B.2. Medially

### B.2.1. yv

#### /yi/

/ rɣayid/ : 'wait for me at such and such  
a place',

/sɣayid/ : 'buy me',

/mɣayid/ : 'show me',

/aðsayid/ : 'get close to me; become my  
neighbour'.

#### /ye/

/aðyeð/ : 'he will wear'.

#### /ya/

/aðyaf/ : 'he will find',

/atyawi/ : 'he will take her, he will  
marry her',

/aʃyazu/ : 'he will skin you',

/azyaw/ : 'big alfa basket',

/ayaɾi/ : 'what a lucky person I am!'.

#### /yɑ/

/aðyɑz/ : 'he will break something',

/aðyɑf/ : 'he will grill',

/aðyɑs/ : 'he/it will land'.

/yo/ - does not occur.

/yu/

- /ayuma/ : 'Oh my brother!'
- /aɔyuff/ : 'he/it will swell up; he will  
not talk to me'.

B.2.2. wv/wi/

- /wawizəɣθ/ : 'name of an area in the Rif',
- /awima/ : 'Oh my brother!'
- /əwiza/ : 'work done collectively by  
the members of a community  
to help one of them build a  
house, plough his land, etc.'.

/we/

- /əaqweθ/ : 'fence or wall surrounding  
a house or an estate (diminutive form)'.

/wa/

- /awami/ : 'when',
- /awar/ : 'speech, words'.

/wɑ/

- /əazwɑθ/ : 'insult'.

/wo/

- /əawwoθ/ : 'door'.

/wu/

- /awuma/ : 'Oh my brother!'.

### B.3. Finally

#### B.3.1. yv

##### /yi/

/aqayi/	: 'here I am',
/təsayi/	: 'listen to what I am saying to you',
/isəqrayi/	: 'he slapped me',
/izwarayi/	: 'he preceded me',
/mrayi/	: 'show me',
/aryayi/	: 'write me',
/əawnayi/	: 'help me',
/qabrayi/	: 'sit in front of me',
/zzayi/	: 'from me'.

/ye/ - does not occur.

##### /ya/

/ðaya/	: 'that's all',
/ðaya/	: 'irrigation ditch',
/amya/	: 'like this',
/inya/	: 'he mounted a horse',
/αqiya/	: 'woman's name',
/rəyya/	: 'a little'.

##### /yα/

/ẓyyα/	: 'to tighten',
/ṣyyα/	: 'to wave',
/γγyα/	: 'to change',
/ṣyyα/	: 'to sieve',
/iɛyα/	: 'play'.

/yo/

/yo/ : 'moon',

/ayo/ : 'idem'.

/yu/

/akamiyyu/ : 'van',

/zayyu/ : 'name of a mountain and a  
gorge on the border between  
Gzennaya and Beni Ouriaghel  
in the Rif',

/kriyu/ : 'pencil',

/aspanyu/ : 'Spaniards'.

B.3.2. vy/iy/

/zziy / : 'to milk',

/niy/ : 'to mount a horse',

/sfiy/ : 'said of milk when it boils  
and spills over',

/ariy/ : 'climb!, go upstairs!'.  
 /ey/ - does not occur.

/ay/

/atay/ : 'tea',

/aray/ : 'the fact of climbing, going  
upstairs',

/ayay/ : 'take this',

/šwašway/ : 'wait!; take your time',

/aqay/ : 'here I am',

/azzay/ : 'cemented area in front of the  
house used for sitting when  
it is warm'.



/aʃfay/ : 'milk'.

/ay/ - does not occur.

/oy/ - does not occur.

/uy/

/zuɣy/ : 'name of<sup>a</sup>/medicinal plant',

/sɣuy/ : 'to scream'.

### B.3.3. wv

/wi/

/awi/ : 'take!'

/zwi/ : 'to sort bad grains from  
wheat, barley, and maize'.

/we/

/aqwe/ : 'fence'.

/wa/

/iqwa/ : 'it is very deep',

/amwa/ : 'like this; calf',

/ðimwa/ : 'edges',

/arwa/ : 'sauce; gravy; after a long  
wait a rain/which irrigates crops  
and trees',

/hwa/ : 'come downstairs!'

/wα/

/ʃwwα/ : 'to draw, to take a photo',

/ʃawα/ : 'to consult',

/ʒawα/ : 'to copulate (said of animals)',

/raqwα/ : 'fence or wall surrounding a  
house',

/azwα/ : 'root, penis (vulgar)'.

/wo/ - does not occur.

/wu/

/ʒwu/ : 'to bleat'.

#### B.3.4. vw

/iw/

/amziw/ : 'a person who eats a lot;  
ogre (mythical character of  
Rifian folk tales)',

/amriw/ : 'eyelashes'.

/ew/ - does not occur.

/aw/

/aqaʷqaw/ : 'a person who stutters in his  
speech',

/azyaw/ : 'big alfa basket',

/aɾaw/ : 'sons, birth'.

/αw/ - does not occur.

/ow/ - does not occur.

/uw/ - does not occur.

### C. The Labials

The labials (including the labiodentals) of the consonantal system of the Berber dialect of Ajdir comprise:

/p/, /b/ and /f/. However, it is worth mentioning that the voiced bilabial fricative β exists indeed in the inventory of the sounds of this dialect in a nursery word:

/mββa/ : 'water (nursery language)'.

9. /p/ The phonological status of this segment in relation to the other labials can be demonstrated from the following oppositions:

9.1. /p/ ≠ /b/

/p/ ≠ /b/

/pa(ppa)/	: 'bread (nursery language)',
/ba(bba)/	: 'shoes (nursery language)'.
/aspa(nyu)/	: 'Spaniards',
/asba(yru)/	: 'string'.

/pp/ ≠ /bb/

/(pa)ppa/	: 'bread (nursery language)',
/(ba)bba/	: 'shoes (nursery language)'.

9.2. /p/ ≠ /f/

/p/ ≠ /f/

/paxita/	: 'masturbation',
/faxita/	: 'woman's name'.
/aspa(nyu)/	: 'Spaniards',
/asfa/	: 'medicine'.

/pp/ ≠ /ff/

/(pu)ppu(h)/	: 'man's nickname',
/((fu)ffu/	: 'fire (nursery language)'.

10. /b/

Its phonemic status in relation to the other labials is witnessed by the following oppositions:

10.1. /b/ ≠ /p/

For this opposition see 9.1. above.

10.2. /b/ ≠ /f//b/ ≠ /f/

/ba(ba)/	: '(my) father',
/fa(fa)/	: 'to look for'.
/bαð/	: 'to relieve oneself',
/fαð/	: 'to sweep, to clean'.
/(b)ab/	: 'owner of',
/(z)af/	: 'hair'.

/bb/ ≠ /ff/

/bbαð/	: 'to relieve oneself',
/ffαð/	: 'to sweep, to clean'.
/(bu)bbu/	: 'water (nursery language)',
/(fu)ffu/	: 'fire (nursery language)'.

11. /f/ Its phonemic status in relation to the other labials can be determined on the basis of the following oppositions:

11.1. /f/ ≠ /p/

See 9.2. above.

11.2. /f/ ≠ /b/

Refer to 10.2. above.

D. Non-Emphatic Dental and Alveolar Plosives and Fricatives

The dental and alveolar plosives and fricatives of the consonantal system of the Berber dialect of Ajdir comprise the following non-emphatic phonemes:

/t/, /d/, /θ/ and /ð/

For further information on these phonemes we will examine the following oppositions:

/t/ ≠ /d/

/t/ ≠ /θ/

/t/ ≠ /ð/

/d/ ≠ /θ/

/d/ ≠ /ð/

/θ/ ≠ /ð/

12. /t/ Its phonological status in relation to the other dental and alveolar plosives and fricatives can be established on the basis of the following oppositions:

12.1. /t/ ≠ /d/

/t/ ≠ /d/

/ti(tti)/ : 'sit down! (nursery language)',

/di(ddi)/ : (1) 'sore; wound; blood or

something that hurts and

causes pain (nursery

language)';

(2) 'a warning given to a child,

"do not do such and such

a thing otherwise you will

be punished or get hurt"

(nursery language)'.

/(ḥati)ta/ : 'pancakes',

/(arqaɛi)da/ : 'habit'.

/tt/ ≠ /dd/

/ttα/ : 'to beg',

/ddα/ : 'to live'.

/(ti)tti/ : 'sit down!(nursery language)',

/(di)ddi/ : (1) 'sore, wound, blood or  
something that hurts and  
causes pain (nursery  
language)';

(2) 'a warning given to a child,  
"do not do such and such a  
thing otherwise you will be  
punished or get hurt"  
(nursery language)'.

12.2. /t/ ≠ /θ/

/qat/ : 'there she is',

/qaθ/ : 'there he is'.

/qqut/ : 'make love to her',

/qquθ/ : 'make love to him'.

12.3. /t/ ≠ /ð/

/ata(y)/ : 'tea',

/aḏa(n)/ : 'intestines'.

/qat/ : 'there she is',

/(s)qað/ : 'to send'.

13. /d/ The phonological status of /d/ in relation to the other dental and alveolar plosives and fricatives can be witnessed by the following

oppositions:

13.1. /d/ ≠ /t/

Refer to the opposition /t/ ≠ /d/ in 12.1. above.

13.2. /d/ ≠ /θ/

/θar**ə**b/ : 'to roof a house',

/dar**ə**b/ : 'to train'.

13.3. /d/ ≠ /ð/

/d/ ≠ /ð/

/da(r**ə**b/ : 'to train',

/ða/ : 'here'.

/ðida/ : 'worm found in water drawn  
from wells',

/ (r**ə**h)ðiðə/ : 'axe'.

/dd/ ≠ /ðð/

/ (ð)addə(θ)/ : 'house',

/aððə(n)/ : 'brushwood'.

14. /θ/ Its phonemic status in relation to the other dental and alveolar plosives and fricatives can be demonstrated from the following oppositions:

14.1. /θ/ ≠ /t/

See 12.2. above.

14.2. /θ/ ≠ /d/

Refer to 13.2. above.

14.3. /θ/ ≠ /ð/

/θa/ : 'This one',

/ða/ : 'here'.

/qaθ/ : 'there he is',

/ (s)qað/ : 'to send'.

15. /ð/ The phonological status of this phoneme in relation to the other dental and alveolar plosives and fricatives can be established on the basis of the following oppositions:

15.1. /ð/ ≠ /t/

See 12.3. above.

15.2. /ð/ ≠ /d/

Refer to 13.3. above.

15.3. /ð/ ≠ /θ/

Refer to the opposition 14.3. above.

#### E. Emphatic Dental and Alveolar Plosives and Fricatives

The emphatic dental and alveolar plosives and fricatives of the consonantal system of this dialect are:

/ṭ/, /ḍ/ and /ð/.

To establish the existence of these phonemes we have to take into consideration the following oppositions:

/ṭ/ ≠ /ḍ/

/ṭ/ ≠ /ð/

/ḍ/ ≠ /ð/.

16. /ṭ/ Its phonemic status in relation to the other emphatics can be established on the basis of the following oppositions:

16.1. /ṭ/ ≠ /ḍ/

/ṭṭ/ ≠ /ḍḍ/

/ṭṭα(f)/ : 'piece',

/ḍḍα(q)/ : 'to refrain from talking to a person because of a misunderstanding'.



16.2. /ṭ/ ≠ /ḏ/

- /ṭa(ṣam)/ : 'to translate',  
 /ḏa(ḏ)/ : 'finger'.  
 /iṭu(haḏan)/ : 'clan in the Rif, sing.  
                   ṭuha; man's nickname',  
 /iḏu(ḏan)/ : 'sing. ḏaḏ, finger'.  
 /((ḏ)at)/ : 'goat',  
 /((ḏ)aḏ)/ : 'finger'.

17. /ḏ/ Its phonological status in relation to the other  
 emphatics can be determined from the following  
 oppositions:

17.1. /ḏ/ ≠ /ṭ/

Refer to 16.1. above.

17.2. /ḏ/ ≠ /ḏ/

- /ḏa(r)/ : 'to hurt, to affect',  
 /ḏa(ḏ)/ : 'finger'.

18. /ḏ/ The phonemic status of this phoneme in relation  
 to the other emphatic dental and alveolar plosives  
 and fricatives can be witnessed by the following  
 oppositions:

18.1. /ḏ/ ≠ /ṭ/

See 16.2. above.

18.2. /ḏ/ ≠ /ḏ/

Refer to 17.2. above.

F. Non-emphatic Dental and Alveolar Plosives and Fricatives  
vs. Emphatic Dental and Alveolar Plosives and Fricatives

In this section we are going to oppose non-emphatic dental and alveolar plosives and fricatives to their emphatic counterparts. The oppositions that will be investigated are:

/t/ ≠ /ṭ/

/d/ ≠ /ḍ/

/ð/ ≠ /ḏ/

1. /t/ ≠ /ṭ/

The phonemic status of the non-emphatic voiceless dental plosive in relation to its emphatic counterpart can be established on the basis of the following oppositions:

/t/ ≠ /ṭ/

/tu(zin)/ : 'one of the tribes of the Rif  
 (aṣṭ tuzin)',

/ṭu(rba)/ : 'religious scholars'.

/ata(y)/ : 'tea',

/aṭa(ṣ)/ : 'a lot'.

/((ðanqq)at/ : 'sugar powder',

/((rəbṭ)at/ : 'potatoes'.

/tt/ ≠ /ṭṭ/

/tta(rix)/ : 'history',

/ṭṭa(ṣin)/ : 'cooking pot, stew pot'.

/itt(α)/ : 'he begged',

/iṭṭ(aw)/ : 'he flies; he speeds up while  
 running or driving'.

2. /d/ ≠ /ḍ/

The phonological status of the non-emphatic voiced dental plosive in relation to its emphatic counterpart can be determined from the following oppositions:

/ddi(n)/	: 'religion',
/ḍḍi(q)/	: 'lack of room'.

3. /ð/ ≠ /ḍ/

The phonemic status of the non-emphatic voiced dental plosive in relation to its emphatic counterpart can be witnessed by the following oppositions:

/ða/	: 'here',
/ḍa(ḍ)/	: 'finger'.
/aḍu(f)/	: 'bone marrow',
/aḍu/	: 'breeze'.
/((sq)aḍ/	: 'to send',
/((ḍ)aḍ/	: 'finger'.

G. Nasals

The consonantal system of this dialect comprises the following nasals:

/m/, /n/, /ŋ/ and /ŋ<sup>w</sup>/.

To establish the existence of each of the above sounds, we will take into consideration such oppositions as:

/m/ ≠ /n/
/m/ ≠ /ŋ/
/m/ ≠ /ŋ <sup>w</sup> /
/ŋ/ ≠ /n/

/ŋ/ ≠ /ŋ<sup>w</sup>/  
 /ŋ<sup>w</sup>/ ≠ /n/.

19. /m/ The phonological status of the bilabial nasal /m/ in relation to the other nasals can be established on the basis of the following oppositions:

19.1. /m/ ≠ /n/

/m/ ≠ /n/

/məšš/	: 'to eat the bone',
/nəšš/	: 'me; I'.
/amu/	: 'like',
/anu/	: 'well (of water)'.
/šə <sup>v</sup> m/	: 'you (feminine)',
/šə <sup>v</sup> n/	: 'to straighten up'.

/mm/ ≠ /nn/

/mmi(s)/	: 'son of',
/nni(γ)/	: 'I said'.
/imma/	: '(my) mother',
/inna/	: 'he said'.

19.2. /m/ ≠ /ŋ/

/muðrα/	: 'owner of the mountain',
/ŋuðrα/	: 'of the mountain'.

19.3. /m/ ≠ /ŋ<sup>w</sup>/

/man/	: 'which',
/ŋ <sup>w</sup> an/	: 'they are cooked'.
/ama(ŋ)/	: 'water',
/aŋ <sup>w</sup> a/	: 'Oh my brother!'.

/ (a) m /	: 'like',
/ (ə) n <sup>w</sup> /	: 'be cooked'.

20. /n/ The phonological status of the alveolar nasal in relation to the other nasals can be established on the basis of the following oppositions:

20.1. /n/ ≠ /m/

Refer to 19.1. above.

20.2. /n/ ≠ /ŋ/

/ num γ α /	: 'to grow older',
/ ŋ um γ α /	: 'of the notable of the tribe'.

20.3. /n/ ≠ /ŋ<sup>w</sup>/

/n/ ≠ /ŋ<sup>w</sup>/

/ nam /	: 'to get used to',
/ ŋ <sup>w</sup> am /	: 'your brother (addressing a female)'.

/ ana (mi) /	: 'getting used to ',
/ a ŋ <sup>w</sup> a /	: 'Oh my brother!'.
/ (ẓ ə) n /	: 'sleep!',
/ (ə) n <sup>w</sup> /	: 'be cooked!'.

/nn/ ≠ /ŋŋ<sup>w</sup>/

/ nni γ /	: 'I said',
/ ŋŋ <sup>w</sup> i γ /	: 'I am tired of sitting; I am very hot and very restless because of lack of action (lit. I am cooked)'.

/inna/ : 'he said',  
 /inn<sup>w</sup>a/ : 'he is tired of sitting, he  
 is very hot and very restless  
 because of lack of action'.

21. /ŋ/ Its phonemic status in relation to the other  
 nasals is witnessed by the following oppositions:

21.1. /ŋ/ ≠ /m/

See 19.2. above.

21.2. /ŋ/ ≠ /n/

See the opposition /n/ ≠ /ŋ/ in 20.2. above.

21.3. /ŋ/ ≠ /ŋ<sup>w</sup>/

/ŋ<sup>w</sup>u(mas)/ : 'of his brother',  
 /nu(θrα)/ : 'of the mountain'.

22. /ŋ<sup>w</sup>/ The phonological status of /ŋ<sup>w</sup>/ in relation to  
 the other nasals can be determined from the fol-  
 lowing oppositions:

22.1. /ŋ<sup>w</sup>/ ≠ /m/

Refer to 19.3. above.

22.2. /ŋ<sup>w</sup>/ ≠ /n/

Refer to 20.3. above.

22.3. /ŋ<sup>w</sup>/ ≠ /ŋ/

Refer to 21.3. above.

## H. Liquids

The liquids of this system comprise:

/l/, /r/, /ḷ/ and /ṛ/.

To establish the phonological status of the above segments we have to investigate the following oppositions:

/l/ ≠ /r/  
 /l/ ≠ /ḷ/  
 /l/ ≠ /ṛ/  
 /r/ ≠ /ḷ/  
 /r/ ≠ /ṛ/  
 /ḷ/ ≠ /ṛ/.

23. /l/ The phonological status of the above phoneme in relation to the other liquids is witnessed by the following oppositions:

23.1. /l/ ≠ /r/

/l/ ≠ /r/

/li(stiqlal)/ : 'independence',  
 /ri(rαθ)/ : 'joking; game; playing'.  
 /ali(man)/ : 'Germany',  
 /ari(f)/ : 'the Rif, a Berber speaking  
 area in Northern Morocco)'.

/ll/ ≠ /rr/

/lla/ : 'no',  
 /rra/ : 'order shouted to a donkey  
 to make it go'.

23.2. /l/ ≠ /ḷ/

/l/ ≠ /ḷ/

/li(stiqlal)/ : 'independence',  
 /li(ṭah)/ : 'fight between shepherds from  
 different clans'.

/l/ ≠ /l̥/

/lla(m)/ : 'letter of the alphabet',

/l̥la(h)/ : 'God'.

23.3. /l/ ≠ /r̥/

/la(bas)/ : 'I am fine',

/ra(ḡ)/ : 'hunger, famine'.

/ala(m)/ : 'move aside',

/ara(q)/ : 'place, seat'.

24. /r/ The phonemic status of the rolled alveolar liquid /r/ in relation to the other liquids can be witnessed by the following oppositions:

24.1. /r/ ≠ /l/

See the opposition /l/ ≠ /r/ in 23.1. above.

24.2. /r/ ≠ /l̥//r/ ≠ /l̥/

/la(l̥laš)/ : 'foot (nursery language)',

/ra(man)/ : 'peace; security'.

/rr/ ≠ /l̥l̥/

/l̥la(h)/ : 'God',

/rra/ : 'order shouted to a donkey  
to make it go'.

/aḡla(h)/ : 'Oh God!',

/arra/ : 'order shouted to a donkey  
to make it go'.

24.3. /r/ ≠ /r̥/

/ra(ḡ)/ : 'female owner of',

/ra(ḡ)/ : 'hunger, famine'.



/ara(mi)/ : 'until',  
 /aṛa(q)/ : 'place, seat'.

25. /l̥/ The phonological status of /l̥/ in relation to the other liquids can be shown from the following oppositions:

25.1. /l̥/ ≠ /l/

Refer to 23.2. above.

25.2. /l̥/ ≠ /r/

See the opposition /r/ ≠ /l̥/ in 24.2. above.

25.3. /l̥/ ≠ /r̥/

/l̥a(l̥laš)/ : 'foot (nursery language)',  
 /ṛa(q)/ : 'place, seat'.

26. /r̥/ Its phonemic status in relation to the other liquids can be demonstrated from the following oppositions:

26.1. /r̥/ ≠ /l/

Refer to 23.3. above.

26.2. /r̥/ ≠ /r/

See 24.3. above.

26.3. /r̥/ ≠ /l̥/

Look at the opposition /l̥/ ≠ /r̥/ in 25.3. above.

In the coming section we will deal with the sibilants, both non-emphatic /s/, /z/, /š/ and /ž/, and emphatic /ṣ/, /ẓ/, /ṣ̣/ and /ẓ̣/. We will oppose, in the first stage, non-emphatics to non-emphatics and emphatics to

emphatics, and, in the second stage, we shall oppose non-emphatics to emphatics. In the light of these oppositions, we shall determine the phonemic status of the sound segments involved.

### I. Non-Emphatic Sibilants

The segments to be investigated are: /s/, /z/, /š/ and /ž/. To establish the status of the above phonemes we have to consider the following oppositions:

/s/ ≠ /z/  
 /s/ ≠ /š/  
 /s/ ≠ /ž/  
 /š/ ≠ /z/  
 /š/ ≠ /ž/  
 /z/ ≠ /ž/.

27. /s/ The phonological status of this segment in relation to the other sibilants can be witnessed by the following oppositions:

#### 27.1. /s/ ≠ /z/

/s/ ≠ /z/

/sgənfa/	:	'to cure, to make recover from illness',
/zgənfa/	:	'to rest'.
/su/	:	'to drink',
/zu(y)/	:	'name of a medicinal plant'.
/ðasa/	:	'liver',
/ðaza/	:	'Taza, a provincial capital in Northern Morocco'.

/yqqas/	: 'he tasted',
/yqqaz/	: 'he is digging up the ground'.
<u>/ss/ ≠ /zz/</u>	
/ssa/	: 'this way',
/zza(ž)/	: 'glass'.
/ussa(n)/	: 'days',
/uzza(r)/	: 'knife; iron'.
/qəss/	: 'to cut',
/qəzz/	: 'animal call used to chase away a dog'.

27.2. /s/ ≠ /š/

/s/ ≠ /š/

/sas/	: 'to put',
/šas/	: 'fill her/him a recipient with water, grain, etc....'.
/as(αðun)/	: 'mule',
/aš(aqo)/	: 'axe; somebody who has a big head'.
/qas /	: 'to taste',
/qas' /	: 'there is so and so'.

/ss/ ≠ /šš/

/ssa/	: 'this way',
/šša/	: 'animal call used to order a donkey to stop'.
/ussan/	: 'days',
/uššan(ən)/	: 'jackals'.
/yiss/	: 'horse',
/yišš/	: 'horn'.

27.3. /s/ ≠ /ẓ//s/ ≠ /ẓ/

/sa(θo)/	: 'roofbeam',
/ẓa(wα)/	: 'to copulate (said of animals)'.
/as(αθun)/	: 'mule',
/aẓ̌(aluq)/	: 'corrugated iron used for roofing'.
/(ərk)as/	: 'glass',
/(ərh)aẓ̌/	: 'a title given to a person who went to Mecca on pilgrimage'.

/ss/ ≠ /ẓẓ/

/ssiy/	: 'to hand',
/ẓẓiy/	: 'I left something behind'.
/issu/	: 'he spread out the carpet',
/iẓẓu/	: 'he bought enough wheat, barley and maize to meet the consumption of his family for a year'.
/yiss/	: 'horse',
/yiẓẓ/	: 'one'.

28. /z/ The phonemic value of this segment in relation to the other non-emphatic sibilants can be demonstrated in the light of the following oppositions:

28.1. /z/ ≠ /s/

Refer to /s/ ≠ /z/ in 27.1. above.

28.2. /z/ ≠ /š//z/ ≠ /š/

/zawα/	: 'to insult',
/šawα/	: 'to consult'.
/(n)izan/	: 'of the flies',
/(n)išan/	: 'straight'.
/ḥaz/	: 'to chase',
/ḥaš/	: 'a woollen towel-like garment that women wear on the top of their clothes'.

/zz/ ≠ /šš/

/zzaθ/	: 'in front of, in the front',
/ššaθ/	: 'defend yourself!, fight!, hit!'.
/izza/	: 'heartburn',
/išša/	: 'he ate'.
/arɛzz/	: 'pride, honour',
/arɛšš/	: 'nest'.

28.3. /z/ ≠ /ž//z/ ≠ /ž/

/zawα/	: 'to insult',
/žawα/	: 'to copulate (said of animals)'.
/raza/	: 'this hunger',
/raža/	: 'wait'.
/arḥaz/	: 'charm, talisman',
/arḥaž/	: 'title given to any person who made the pilgrimage to Mecca'.

/zz/ ≠ /žž/

- |          |   |   |
|----------|---|---|
| /zzi(f)/ | : | 'handkerchief',                         |
| /žžiγ/   | : | 'I left something/somebody behind'.     |
| /izza/   | : | 'heartburn',                            |
| /ižža/   | : | 'he left something or somebody behind'. |

29. /š/ We can establish the phonological status of this sibilant in relation to the other sibilants on the basis of the following oppositions:

29.1. /š/ ≠ /s/

Refer to 27.2. above.

29.2. /š/ ≠ /z/

See 28.2. above.

29.3. /š/ ≠ /ž/

/š/ ≠ /ž/

- |          |   |  |
|----------|---|--|
| /šawα/   | : | 'to consult',                          |
| /žawα/   | : | 'to copulate (said of animals)'.       |
| /yušα/   | : | 'he stole',                            |
| /yužα/   | : | 'he is taller than; he is older than'. |
| /(a)riš/ | : | 'hair (of man); feathers',             |
| /(e)riž/ | : | 'embers'.                              |

/šš/ ≠ /žž/

- |        |   |                            |
|--------|---|----------------------------|
| /ššiγ/ | : | 'I ate',                   |
| /žžiγ/ | : | 'I left something behind'. |

/i <sup>ǃ</sup> šša/	: 'he ate',
/i <sup>ǃ</sup> žža/	: 'he left something behind'.
/š <sup>ǃ</sup> š/	: 'eat!'
/ž <sup>ǃ</sup> ž/	: 'leave something behind!'

30. /ž<sup>ǃ</sup>/ The phonemic identity of the non-emphatic sibilant /ž<sup>ǃ</sup>/ can be demonstrated from the following oppositions:

30.1. /ž<sup>ǃ</sup>/ ≠ /s/

Refer to 27.3. above.

30.2. /ž<sup>ǃ</sup>/ ≠ /z/

See the opposition /z/ ≠ /ž<sup>ǃ</sup>/ in 28.3. above.

30.3. /ž<sup>ǃ</sup>/ ≠ /š<sup>ǃ</sup>/

Refer to 29.3. above.

### J. Emphatic Sibilants

The emphatic sibilants of this system are:

/ṣ̌/, /ẓ/, /ṣ̌<sup>ǃ</sup>/ and /ẓ̌<sup>ǃ</sup>/.

The oppositions to be considered in this section are as follows:

/ṣ̌/ ≠ /ẓ/

/ṣ̌/ ≠ /ṣ̌<sup>ǃ</sup>/

/ṣ̌/ ≠ /ẓ̌<sup>ǃ</sup>/

/ṣ̌<sup>ǃ</sup>/ ≠ /ẓ/

/ṣ̌<sup>ǃ</sup>/ ≠ /ẓ̌<sup>ǃ</sup>/

/ẓ̌<sup>ǃ</sup>/ ≠ /ẓ/.

31. /ʒ/ The phonemic status of the emphatic sibilant /ʒ/ in relation to the other emphatics can be witnessed by the following oppositions:

31.1. /ɣ/ ≠ /z/

/s/ ≠ /z/

/su(ə)/ : 'to blow (wind,etc.)',

/ẓu(mm)/ : 'to fast'.

/ʈasa(yʂaʂθ)/ : 'kind of bird',

```
/ʔaza(rit)/      : 'fart (diminutive form',
```

$$/s:s/ \neq /z:z/$$

/ṣṣα/ : 'to hide a person; to  
keep a secret',

/ẓẓα/ : 'to see'.

/iṣṣ(α)/ : 'he hid a person; he kept  
a secret',

/ɪzz(ə)n/ : 'excrement'.

31.2. /ɣ/ ≠ /ɣ̥/

$$/s/ \neq /s^v/$$

/sʌðə/ : 'I swallowed',

/ʃʌʒəɹ/ : 'I got vaccinated'.

/asffa/ : 'whistling',

/a<sup>✓</sup>ʃffα/ : 'thief'.

$$/\underset{\cdot}{s}\underset{\cdot}{s}/ \neq / \overset{\vee}{\underset{\cdot}{s}} \overset{\vee}{\underset{\cdot}{s}} /$$

/ʃʃα/ : 'to hide a person; to keep  
a secret',

/šš<sup>v</sup>α/ : 'to fill'.

/iʃʃə/ : 'he hid him; he did not  
betray him'.

/išš<sup>v</sup><sub>α</sub>θ/ : 'he filled it'.



### 31.3. /ʃ/ ≠ /ʒ̣/

#### /ʃ/ ≠ /ʒ̣/

/ʃα(γ)/ : 'to use wood for fire',

/ʒ̣α(r)/ : 'to haul, to drag'.

/(ǝrɛ)αʃα/ : 'afternoon prayer',

/(r)αʒ̣α/ : 'good deed'.

#### /ʃʃ/ ≠ /ʒ̣ʒ̣/

/ʃʃαf/ : 'change',

/ʒ̣ʒ̣αf/ : 'ravine'.

32. /z/ To determine the phonological status of this segment in relation to the other emphatics, we have to investigate the following oppositions:

### 32.1. /z/ ≠ /ʃ/

Refer to the opposition /ʃ/ ≠ /ẓ/ in 31.1. above.

### 32.2. /z/ ≠ /ʃ̣/

#### /z/ ≠ /ʃ̣/

/zǝhhα/ : 'to moan',

/ʃ̣ǝhhα/ : 'to build a dome over the tomb of a saint'.

/izǝhhα/ : 'he is moaning',

/iʃ̣ǝhhα(θ)/ : 'he built a dome over the tomb of a saint'.

#### /zz/ ≠ /ʃ̣ʃ̣/

/zzα/ : 'to see',

/ʃ̣ʃ̣α/ : 'to fill'.

### 32.3. /ẓ/ ≠ /ʒ̣/

#### /ẓ/ ≠ /ʒ̣/

/ẓa(rif)/ : 'kind of spice',

/ʒ̣a(ʒ̣α)/ : 'to drag oneself'.

/a <sub>z</sub> a(rif)/	: 'kind of spice',
/a <sub>z</sub> a( <sub>z</sub> α)/	: 'the fact of dragging oneself'.
<u>/z<sub>z</sub>/ ≠ /ẓẓ/</u>	
/ẓẓα(θ)/	: 'see him!'
/ẓẓα(ə)/	: 'to make a lot of noise while playing'.

33. /ṣ̌/ The phonemic status of the emphatic /ṣ̌/ in relation to the other emphatic sibilants can be witnessed by the following oppositions:

33.1. /ṣ̌/ ≠ /ṣ/

Refer to 31.2. above.

33.2. /ṣ̌/ ≠ /ẓ/

See the opposition /ẓ/ ≠ /ṣ̌/ in 32.2. above.

33.3. /ṣ̌/ ≠ /ẓ̣/

/ṣ̣̌/ ≠ /ẓ̣/

/ṣ̣̌α(θ)/ : 'fill it!'

/ẓ̣α(r)/ : 'to haul, to drag'.

/ṣ̣̣̌/ ≠ /ẓ̣̣/

/ṣ̣̣̌αə/ : 'to become a Koranic teacher  
at a cantonal mosque',

/ẓ̣̣αə/ : 'to make noise while playing'.

/iṣ̣̣̌αə/ : 'he became a Koranic teacher  
at a cantonal mosque',

/iẓ̣̣αə/ : 'he made noise while playing'.

34. /ẓ̌/ Its phonological status in relation to the other emphatic sibilants can be established on the basis of the following oppositions:

34.1. /ẓ̌/ ≠ /ʃ̣/

Refer to 31.3. above.

34.2. /ẓ̌/ ≠ /ẓ/

See the opposition /ẓ/ ≠ /ẓ̌/ in 32.3. above.

34.3. /ẓ̌/ ≠ /ʃ̣/

See 33.3. above.

#### K. Non-Emphatic vs. Emphatic Sibilants

The segments /s/, /z/, /ẓ̌/ and /ṣ̌/ are to be investigated in relation to their emphatic counterparts: /ʃ̣/, /ẓ/, /ẓ̌/ and /ʃ̣/.

##### K.1. /s/ ≠ /ʃ̣/

Is the sound segment /ʃ̣/ a variant of /s/ or a phoneme in its own right? To answer this question we have to find examples in which /s/ contrasts with /ʃ̣/.

/s/ ≠ /ʃ̣/

/sa(θo)/	: 'roof beam',
/ʃ̣a(fα)/	: 'to travel'.
/asnna(n)/	: 'thorn',
/aʃ̣nna(ẓ̌)/	: 'big basket'.
/asα(θun)/	: 'mule',
/aʃ̣α(wəθ)/	: 'crop threshing'.

/ss/ ≠ /ʃʃ/

/ssi/	:	'a title given to the notables of a tribe; sir; master',
/ʃʃi(f)/	:	'summer'.
/issa(s)/	:	'he put',
/iʃʃa(θ)/	:	'he hid him; he did not betray him'.

Non-geminate /s/ and /ʃ/ appear to contrast in all positions but, whereas in the case of geminate /ss/ and geminate /ʃʃ/ I could not find any example (either minimal pairs or near-minimal pairs) in which they contrast syllable-finally.

K.2. /z/ ≠ /ẓ/

To prove that /ẓ/ is not a mere allophone of the phoneme /z/ but a phoneme in its own right, we have to find minimal pairs or near-minimal pairs in which /z/ and its emphatic counterpart /ẓ/ contrast.

/z/ ≠ /ẓ/

/izi/	:	'mosquito',
/iẓi/	:	'gall-bladder'.

/zz/ ≠ /ẓẓ/

/zza(ẓ)/	:	'glass',
/ẓẓa(ḡ)/	:	'to pray'..
/(u)zzar/	:	'iron; knife',
/(a)ẓẓar/	:	'sleeping'.

- /(\text{əre})\text{əzz}/ : 'pride, honour',  
 /(\text{ṭṭ})\text{əzz}/ : 'exclamation expressing  
 indignation, reproach and  
 disgust'.

K.3. /ṣ̌/ ≠ /ṣ̣̌/

To prove that /ṣ̣̌/ is a separate phoneme from /ṣ̌/, we have to find examples in which /ṣ̌/ and /ṣ̣̌/ contrast.

/ṣ̌/ ≠ /ṣ̣̌/

- /amṣ̌a(n)/ : 'place, seat',  
 /amṣ̣̌a(ə)/ : 'hair combing'.

/ṣ̣̌ṣ̌/ ≠ /ṣ̣̣̌/

- /ṣ̣̣̌α(z)/ : 'to plough',  
 /ṣ̣̣̣̌α(θ)/ : 'fill it!'.  
 /iṣ̣̣̣̌α(z)/ : 'he ploughed',  
 /iṣ̣̣̣̣̌α(θ)/ : 'he filled it'.

Non-geminate /ṣ̌/ and /ṣ̣̌/ do not seem to contrast initially and finally. Geminate /ṣ̣̣̌/ and geminate /ṣ̣̣̣̌/ contrast initially and intervocally but I have not been able to find any

example in which they contrast finally. *(by this I mean that I have been unable to find minimal pairs, not that they are members of the same phoneme)*

K.4. /ẓ̌/ ≠ /ẓ̣̌/

To establish the existence of /ẓ̣̌/ as a separate phoneme from /ẓ̌/, we have to find examples in which /ẓ̌/ and /ẓ̣̌/ contrast.

/ž/ ≠ /ẓ/

/aža(θir)/ : 'mat',

/aẓa(mum)/ : 'yoke'.

Non-geminate /ž/ and /ẓ/ do not seem to contrast initially and finally.

### L. Affricates

The dialect of Ajdir comprises two non-emphatic affricates:

/č/ and /ǧ/

and has no emphatic /č̣/ and no emphatic /ǧ̣/ in its consonantal system.

35. /č/ The phonological status of the voiceless palato-alveolar affricate in relation to /ǧ/ can be established on the basis of the following oppositions:

/č/ ≠ /ǧ/

/č/ ≠ /ǧ/

/(x)ač̣i/ : '(my) aunt',

/(aẓ̌)āǧ̣i/ : 'oath-taking'.

/(θaγy)uč̣/ : 'ass',

/(yẓ̣)uǧ̣/ : 'he prayed'.

/čč/ ≠ /ǧǧ/

/čča/ : 'to press',

/ǧǧa(ẓ)/ : 'to get hungry'.

/ičča/ : 'he pressed',

/iǧǧa(ẓ)/ : 'he got hungry'.

36. /ǵ/ Phonologically speaking non-geminate /ǵ/ contrasts with geminate /ǵǵ/:

/ǵ/ ≠ /ǵǵ/

/maǵa/ : 'if',

/maǵǵa/ : 'a kind of bird'.

The phonemic status of /ǵ/ in relation to /č/ can be demonstrated from the following opposition:

/ǵ/ ≠ /č/

Refer to the opposition /č/ ≠ /ǵ/ above.

#### M. Palatals and Velars

This system comprises the following velars and palatals:

/k/, /g/, /k<sup>w</sup>/, /g<sup>w</sup>/, /k<sup>y</sup>/ and /g<sup>y</sup>/.

To establish the phonological status of the above segments, we have to take into consideration the following oppositions:

/k/ ≠ /g/

/k/ ≠ /k<sup>w</sup>/

/k/ ≠ /g<sup>w</sup>/

/k/ ≠ /k<sup>y</sup>/

/k/ ≠ /g<sup>y</sup>/

/g/ ≠ /k<sup>w</sup>/

/g/ ≠ /g<sup>w</sup>/

/g/ ≠ /k<sup>y</sup>/

/g/ ≠ /g<sup>y</sup>/

/k<sup>w</sup>/ ≠ /g<sup>w</sup>/

/k<sup>w</sup>/ ≠ /k<sup>y</sup>/

/k<sup>w</sup>/ ≠ /g<sup>y</sup>/

$/g^w/ \neq /k^y/$

$/g^w/ \neq /g^y/$

$/k^y/ \neq /g^y/$

37. /k/ The phonological status of this phoneme in relation to the other palatals and velars can be witnessed by the following oppositions:

37.1. /k/  $\neq$  /g/

/k/  $\neq$  /g/

/kar <u>r</u> u/	: 'cart',
/ga <u>r</u> ru/	: 'cigarette'.
/aga(ʒi)/	: 'to join the army',
/aka(miyyu)/	: 'van'.

/kk/  $\neq$  /gg/

/kk <u>α</u> /	: 'to wake up, to stand up',
/gg <u>α</u> /	: 'to bake bread'.
/ikk <u>α</u> /	: 'he woke up; he stood up',
/igg <u>α</u> /	: 'he is baking bread'.

37.2. /k/  $\neq$  /k<sup>w</sup>/

/kk/  $\neq$  /kk<sup>w</sup>/

/kk <u>α</u> /	: 'to wake up; to stand up',
/kk <sup>w</sup> <u>α</u> /	: 'to insult'.
/ikk <u>α</u> /	: 'he woke up, he stood up',
/ikk <sup>w</sup> <u>α</u> /	: 'he insulted'.

37.3. /k/  $\neq$  /g<sup>w</sup>/

I have not been able to find any example for this particular opposition.



37.4. /k/ ≠ /k<sup>y</sup>/

/k/ ≠ /k<sup>y</sup>/

/ak(mmα)/ : 'depression',

/ak<sup>y</sup>(sum)/ : 'meat'.

37.5. /k/ ≠ /g<sup>y</sup>/

/kk/ ≠ /gg<sup>y</sup>/

/kkα/ : 'to wake up; to stand up',

/gg<sup>y</sup>α/ : 'to bake bread'.

/ikkα/ : 'he woke up; he stood up',

/igg<sup>y</sup>α/ : 'field'.

38. /g/ Its phonemic status in relation to the other velars and palatals can be demonstrated from the following oppositions:

38.1. /g/ ≠ /k/

For this opposition refer to 37.1. above.

38.2. /g/ ≠ /k<sup>w</sup>/

/gg/ ≠ /kk<sup>w</sup>/

/ggα/ : 'to bake bread',

/kk<sup>w</sup>α/ : 'to insult'.

/igga/ : 'he is baking bread',

/ikk<sup>w</sup>α/ : 'he insulted'.

38.3. /g/ ≠ /g<sup>w</sup>/

/g/ ≠ /g<sup>w</sup>/

/agaž(i)/ : 'the act of joining the army',

/(r)ag<sup>w</sup>až/ : 'far'.

38.4. /g/ ≠ /k<sup>y</sup>/

/g/ ≠ /k<sup>y</sup>/

/ag(ra)/ : 'property',

/ak<sup>y</sup>(sum)/ : 'meat'.

38.5. /g/ ≠ /g<sup>y</sup>/

/g/ ≠ /g<sup>y</sup>/

/ag(ra)/ : 'property',

/ag<sup>y</sup>(ði)/ : 'dog'.

/gg/ ≠ /gg<sup>y</sup>/

/igga/ : 'he is baking bread',

/igg<sup>y</sup>α/ : 'field'.

39. /k<sup>w</sup>/ The status of this phoneme in relation to the other velars and palatals can be witnessed by the following oppositions:

39.1. /k<sup>w</sup> ≠ /k/

For this opposition refer to 37.2. above.

39.2. /k<sup>w</sup>/ ≠ /g/

See 38.2. above.

39.3. /k<sup>w</sup>/ ≠ /g<sup>w</sup>/

I have not been able to find any minimal pair or near-minimal pair to establish this opposition.

39.4. /k<sup>w</sup>/ ≠ /k<sup>y</sup>/

I have not been able to find any example in which /k<sup>w</sup>/ and /k<sup>y</sup>/ contrast.

39.5. /k<sup>w</sup>/ ≠ /g<sup>y</sup>/

/kk<sup>w</sup>/ ≠ /gg<sup>y</sup>/

/kk<sup>w</sup>α/ : 'to insult',

/gg<sup>y</sup>α/ : 'to bake bread'.

/ikk<sup>w</sup><sub>α</sub>/ : 'he insulted',  
 /igg<sup>y</sup><sub>α</sub>/ : 'field'.

40. /g<sup>w</sup>/ The phonological status of /g<sup>w</sup>/ in relation to the other velars and palatals can be demonstrated from the oppositions that follow:

40.1. /g<sup>w</sup>/ ≠ /k/

For this opposition refer to 37.3. above.

40.2. /g<sup>w</sup>/ ≠ /g/

See the opposition /g/ ≠ /g<sup>w</sup>/ in 38.3. above.

40.3. /g<sup>w</sup>/ ≠ /k<sup>w</sup>/

See 39.3. above.

40.4. /g<sup>w</sup>/ ≠ /k<sup>y</sup>/

I have not been able to find any minimal pair or near-minimal pair for this opposition.

40.5. /g<sup>w</sup>/ ≠ /g<sup>y</sup>/

I have not been able to find any example in which /g<sup>w</sup>/ contrasts with /g<sup>y</sup>/.

41. /k<sup>y</sup>/ The phonological status of this segment in relation to the other palatals and velars can be established on the basis of the following oppositions:

41.1. /k<sup>y</sup>/ ≠ /k/

See 37.4. above.

41.2. /k<sup>y</sup>/ ≠ /g/

Refer to 38.4. above.

41.3. /k<sup>y</sup>/ ≠ /k<sup>w</sup>/

See the opposition /k<sup>w</sup>/ ≠ /k<sup>y</sup>/ in 39.4. above.

41.4. /k<sup>y</sup>/ ≠ /g<sup>w</sup>/

See the opposition in 40.4. above.

41.5. /k<sup>y</sup>/ ≠ /g<sup>y</sup>/

/k<sup>y</sup>/ ≠ /g<sup>y</sup>/

/ak<sup>y</sup>(sum)/ : 'meat',

/ag<sup>y</sup>(ði)/ : 'dog'.

42. /g<sup>y</sup>/ Its status in relation to the other velars and palatals can be determined from the oppositions that follow:

42.1. /g<sup>y</sup>/ ≠ /k/

Refer to the opposition /k/ ≠ /g<sup>y</sup>/ in 37.5. above.

42.2. /g<sup>y</sup>/ ≠ /g/

See the opposition in 38.5. above.

42.3. /g<sup>y</sup>/ ≠ /k<sup>w</sup>/

Refer to 39.5. above.

42.4. /g<sup>y</sup>/ ≠ /g<sup>w</sup>/

Consider the opposition /g<sup>w</sup>/ ≠ /g<sup>y</sup>/ in 40.5. above.

42.5. /g<sup>y</sup>/ ≠ /k<sup>y</sup>/

Refer to the opposition in 41.5. above.

## N. Uvulars

The consonant system of this dialect has the following uvular phonemes: a voiceless fricative /x/, a voiced fricative /ɣ/ and a plosive /q/, which is voiceless.

To establish the phonological status of the above uvulars we would have to investigate such oppositions as:

/x/ ≠ /ɣ/

/x/ ≠ /q/

/ɣ/ ≠ /q/

43. /x/ Its phonological status in relation to the other uvulars can be demonstrated from the following oppositions:

43.1. /z/ ≠ /ɣ/

/x/ ≠ /ɣ/

/xari/ : '(my) maternal uncle',

/ɣari/ : 'I have'.

/axa(əuə)/ : 'rags',

/aɣa(raf)/ : 'pitcher'.

/ (z) ix/ : 'by the way',

/ (nn) iɣ/ : 'I said'.

/xx/ ≠ /ɣɣ/

/xuxxu/ : 'monster, ogress, bug, strange animal (nursery language)',

/ɣuɣɣu/ : 'milk, buttermilk (nursery language)'.

/ixxα(ə)/ : 'he had sexual intercourse',

/iɣɣα(m)/ : 'he gave a gift of money to the bridegroom during his wedding ceremony'.

43.2. /x/ ≠ /q/

/x/ ≠ /q/

- /xam/ : 'on you (feminine singular)',  
 /qam/ : 'there he is! (form used  
 when addressing a woman)',  
 /axa(ri)/ : 'Oh my (maternal) uncle!',  
 /aqa(yi)/ : 'here I am'.  
 /(s)ax/ : 'to be washed away by rain  
 (soil)',  
 /(r)aq/ : 'place, seat'.

/xx/ ≠ /qq/

- /axxam/ : 'room',  
 /aqqam/ : 'expression used when insult-  
 ing a person male or female  
 by showing them one's middle  
 finger (cf. ayam "here is  
 for you! (to a woman)",  
ayaš "idem (to a man)")'.

44. /γ/

/γ/ ≠ /γγ/

The existence of the opposition /γ/ ≠ /γγ/ is shown by such pairs as:

- /γas/ : 'he has',  
 /γγas/ : 'to kill a sheep or a cow;  
 to slaughter'.

Its phonemic status in relation to the other

uvulars can be determined on the basis of the following oppositions:

44.1. /ɣ/ ≠ /q/

/ɣ/ ≠ /q/

/ɣaθ/	: 'to help (≠ /ɣαθ/: 'read it'))',
/qaθ/	: 'there he is'.
/aɣaʃ/	: 'take this',
/aqaʃ/	: 'I introduce you to ...'.
/(nn)iɣ/	: 'I said',
/(ḏḏ)iq/	: 'lack of room'.

44.2. /ɣ/ ≠ /x/

Refer to the opposition /x/ ≠ /ɣ/ in 43.1. above.

45. /q/ That there is a phonological opposition between non-geminate /q/ and geminate /qq/ is shown by the existence of such pairs as:

/q/ ≠ /qq/

/qa(θ)/	: 'there he is',
/qqa(s)/	: 'to taste'.
/aqam/	: 'here is',
/aqqam/	: 'expression used when insulting somebody male or female by showing them one's middle finger'.

The phonemic status of this segment in relation to the other uvulars has been established by the oppositions given in 43.2. and 44.1. above.

# O. The Pharyngals /ħ/ and /ε/ and the Glottal /h/

The consonantal system of the dialect of Ajdir has a voiceless pharyngeal fricative /ħ/, a voiced pharyngeal fricative /ε/ and a single glottal fricative /h/ which is voiced. To establish the existence of these phonemes we have to investigate the following oppositions:

/ħ/ ≠ /ε/

/ħ/ ≠ /h/

/h/ ≠ /ε/.

46. /ħ/ The phonological opposition that exists between non-geminate /ħ/ and geminate /ħħ/ is demonstrated by such pairs as:

/ħ/ ≠ /ħħ/

/ħa(z)/ : 'to chase',

/ħħa(n)/ : 'to cover; to protect'.

/iħa(z)/ : 'he chased',

/iħħa(ð)/ : 'he hid'.

The phonemic status of this pharyngeal in relation to its voiced counterpart can be witnessed from the oppositions that follow:

46.1. /ħ/ ≠ /ε/

/ħ/ ≠ /ε/

/ħa(ð)/ : 'to hide',

/εa(ð)/ : 'yet'.

/iħawə(r)/ : 'he was careful with ...;  
he took care of',

/iεawə(ð)/ : 'he repeated something;  
he did something again'.



/raḥ/	: 'to go, to leave',
/raɛ/	: 'to look'.

46.2. /ḥ/ ≠ /h/

/ḥ/ ≠ /h/

/ḥa(ð)/	: 'to hide',
/ha(ž)/	: 'to rage'.
/aḥa(lak)/	: 'I wish',
/aha(kus)/	: 'one'.

47. /ɛ/ The phonemic status of /ɛ/ in relation to its voiceless counterpart /ḥ/ and the glottal /h/ can be determined from the oppositions that follow:

47.1. /ɛ/ ≠ /ḥ/

Refer to the opposition /ḥ/ ≠ /ɛ/ in 46.1. above.

47.2. /ɛ/ ≠ /h/

/ɛ/ ≠ /h/

/ɛa(ð)/	: 'yet',
/ha(ž)/	: 'to rage',
/aɛa(wir)/	: 'a famous battle during the Rif War (1921-26), during which the Spanish army was defeated by the men of Abdel Krim',
/aha(kus)/	: 'one shoe'.

48. /h/ The phonological status of /h/ in relation to /ħ/ and /ɛ/ has been established by the oppositions given in 46.2. and in 47.2. above.

P. Schwa

I have not been able to find in the system of Ajdir a single example in which schwa contrasts with any other phoneme. Therefore as far as my system is concerned schwa is not phonemic. And since nobody has produced satisfactory rules for predicting it, I will be writing it in the interim period.

## CHAPTER FOUR

## WORD STRESS

Unlike the situation in the English language, stress in the dialect of Ajdir does not appear to be phonemically pertinent, but to be rather a function of the syllabic structure of the word. That is to say the stress is predictable from the syllabic structure of the word and cannot therefore be phonemically pertinent.

In this Chapter I will not be discussing the question of sentence stress, but only word stress. In order to demonstrate that word stress is predictable in this dialect, I will consider all the possible syllabic structures and determine where the stress falls in each one of them. Nevertheless, I would like to point out two things: firstly, throughout this work stress has been determined on a purely auditory basis, secondly, although I have not been able to work out all the insertion rules, I have not found a single example of a minimal pair distinguished only by the presence or absence of schwa; therefore it is to be assumed that schwa is not a phoneme.

The following syllabic patterns are found (for the sake of completeness I have included monosyllabic patterns, although in their case the position of the stress is obviously predictable):

## 1. Pattern C

e.g. š̌ : 'to eat',  
ž̌ : 'to leave (it)'.

Where the consonant is a plosive, a schwa is inserted either before or after it, e.g. g<sup>w</sup> [əg<sup>w</sup> or g<sup>w</sup>ə] : 'to knead bread'. Stress falls on the consonant where this is a fricative and on the accompanying schwa when it is a plosive.

## 2. Pattern C:

e.g. š̌š̌ : 'to eat',  
ž̌ž̌ : 'to leave (it)'.

When a plosive, a schwa is inserted before or after it, e.g. kk [ək k or kək] : 'to drop by'. Again stress falls on the consonant when fricative and on the schwa when plosive.

3. Pattern C<sup>1</sup>C<sup>2</sup>

A schwa appears to be always inserted between C<sup>1</sup> and C<sup>2</sup>.

e.g. nəγ : 'to kill',  
səγ : 'to buy',  
ž̌ən : 'to sleep',  
nəš̌ : 'I, me'.

Stress always falls on the schwa.

## 4. Pattern C:C

A schwa is always inserted after C:

- e.g. qqən : 'to shut; to tie',  
 ddəz : 'to beat',  
 ddəm : 'to bite',  
 ṭṭəz : 'exclamation of disapproval',  
 ǵǵəɣ : 'to lick',  
 ddən : 'to call for prayer.'

The stress falls on the schwa.

## 5. Pattern CC:

A schwa is always inserted between C and C:

- e.g. sǎšš : 'to feed',  
 bədd : 'to stand',  
 šəkk : 'you (m. sing.)'.

The stress falls on the schwa.

## 6. Pattern VC

- e.g. ur : 'heart',  
 eð : 'to dress',  
 ʌn : 'flour!'.

The stress falls on the vowel.

## 7. Pattern VC:

- e.g. uff : 'to swell',  
 ižž : 'one',  
 išš : 'horn'.

The stress falls on the vowel.

## 8. Pattern CV

e.g. su : 'to drink',

fa : 'to yawn',

ya : 'towards'.

The stress falls on the vowel.

## 9. Pattern C:V

e.g. ssa : 'this way',

ttu : 'to forget',

ẓẓɑ : 'to see',

ddɑ : 'to live',

kkɑ : 'to wake up; to stand up'.

The stress falls on the vowel.

## 10. Pattern CCV

e.g. skɑ : 'to get drunk',

rqa : 'to meet',

nta : 'to stain'.

The stress falls on the vowel.

## 11. Pattern CC:V

Where C is a plosive there may be a schwa between it and C:

e.g. qəmma : 'to gamble',

ʃffa : 'to whistle'.

The stress falls on the final vowel even if there is a schwa present.

## 12. Pattern CVC

e.g. siy : 'to hand',  
 ziš : 'long time ago',  
 rur : 'to be born'.

The stress falls on the vowel.

## 13. Pattern C:VC

e.g. ššaz : 'to plough',  
 ddin : 'religion',  
 ssuq : 'souk, market'.

The stress falls on the vowel.

## 14. Pattern CVC:

e.g. zumm : 'to fast',  
 sižž : 'to peep'.

The stress falls on the vowel.

## 15. Pattern VCC

There always appears to be a schwa between the  
 two consonants:

e.g. uəm : 'face',  
 aəf : 'to enter',  
 irəm : 'animal skin'.

The stress falls on the initial vowel.

## 16. Pattern VC:C

A schwa appears to be always inserted between C:  
 and C



e.g. addəɣ : 'armpit',

annəɣ : 'palate'.

The stress falls on the schwa.

17. Pattern VCV

e.g. aɣi : 'milk',

abu : 'to carry a person piggyback',

ini : 'to say'.

Both vowels appear to be equally stressed.

18. Pattern VC:V

e.g. izza : 'heartburn',

iggα : 'he is baking bread',

ažẓ̌α : 'neighbour'.

The stress appears to fall equally on the two vowels.

19. Pattern C<sup>1</sup>C<sup>2</sup>C<sup>3</sup>

A schwa is inserted in some cases between C<sup>1</sup> and C<sup>2</sup> and in other cases between C<sup>2</sup> and C<sup>3</sup>. The choice of pattern appears to depend on the nature of the consonants,

e.g. səns : 'to spend the night',

mrəʃ : 'to marry',

xəɒm : 'to work'.

The stress always falls on the schwa.

## 20. Pattern CC:C

A schwa is always inserted after C:

- e.g. sqqər : 'to slap',  
 snnəð : 'to lean',  
 sġġəm : 'to greet'.

The stress falls on the schwa.

21. Pattern C<sup>1</sup>C<sup>2</sup>C:

Schwas are always inserted before C<sup>1</sup> and after C<sup>2</sup>.

- e.g. ərqədd : 'height',  
 ərbəqq : 'lice',  
 ərhədd : 'Sunday'.

The stress appears to fall on the last schwa.

## 22. Pattern C:CC

- e.g. ssəεð : 'luck'.

The stress appears to fall on the schwa.

## 23. Pattern VCVC

- e.g. ifis : 'jackal',  
 aʔir : 'arm',  
 aðan : 'intestines'.

The stress appears to fall equally on both vowels.

## 24. Pattern VC:VC

- e.g. abbiš : 'breast',  
 aððan : 'brushwood',  
 aššan : 'fingernails'.

The stress appears to fall equally on both vowels.

## 25. Pattern VCCV

e.g. asfa : 'medicine',

asya : 'plough',

am<sup>ʔ</sup>za : 'sickle'.

The stress appears to fall equally on both vowels.

## 26. Pattern VCC:V

e.g. aqmma : 'gambler',

aq<sup>ʔʔ</sup>ssa : 'scabhead',

azmma : 'flute player'.

The stress appears to fall equally on both vowels.

## 27. Pattern CVCV

e.g. qabu : 'walking stick',

saθo : 'roofbeam',

xafi : 'on me'.

Both vowels appear to be equally stressed.

## 28. Pattern CVC:V

e.g. zzu<sup>ʔ</sup>ya : 'to drag, to haul'.

The stress appears to fall on the last vowel.

## 29. Pattern CVC:V

e.g. sakku : 'bisac',

sammu : 'cushion',

ninni : 'sleep! (nursery language)'.

The stress appears to fall on the last vowel.

## 30. Pattern CVC:C

e.g. sig<sup>W</sup>əð: 'to frighten'.

The stress appears to fall equally on the vowel and the schwa.

## 31. Pattern CCVC

e.g. əʃoθ : 'verse of the Koran',

əmiɫ : 'bellybutton',

əɣaɫ : 'goat'.

The stress falls on the vowel.

## 32. Pattern C:CVC

e.g. šš<sup>ˈ</sup>mat : 'coward',

ssram : 'greetings'.

The stress falls on the vowel.

## 33. Pattern CC:VC

e.g. fṭṭu<sup>ˈ</sup>š : 'woman's name',

ɛllu<sup>ˈ</sup>š : 'man's name'.

The stress falls on the vowel.

## 34. Pattern VCCC

e.g. awθəm : 'male, son'.

The stress appears to fall equally on the vowel and the schwa.

## 35. Pattern VCC:C

e.g. arzzəθ : 'turban'.

The stress appears to fall equally on the vowel and the schwa.

36. Pattern  $C^1C^2C^3C^4$

A schwa is always inserted between  $C^1$  and  $C^2$  and between  $C^3$  and  $C^4$ ,

e.g.  $r\epsilon\epsilon q\epsilon r$  : 'mind; thinking',

$r\epsilon mn\epsilon \epsilon$  : 'something solid and reliable'.

Both schwas appear to be equally stressed.

37. Pattern  $C:C^1C^2C^3$

A schwa is always inserted after  $C:$  and between  $C^2$  and  $C^3$ ,

e.g.  $ss\epsilon\partial h\epsilon s^v$  : 'to make laugh ',

$ss\epsilon mr\epsilon s^v$  : 'to make marry'.

The stress appears to fall equally on both schwas.

38. Pattern  $C^1C^2C^3C:$

e.g.  $r\epsilon mq\epsilon ss$  : 'scissors'.

The stress appears to fall equally on both schwas.

39. Pattern CVCCV

e.g.  $\partial anda$  : 'lake',

$\partial amza$  : 'ogress'.

The stress appears to fall equally on both vowels.

## 40. Pattern C:VCCV

e.g. ṭṭabra : 'table'.

The stress appears to fall on the first vowel.

## 41. Pattern CVCC:V

e.g. θimssi : 'fire; heat',

θisqqα : 'shares'.

The stress falls equally on both vowels.

## 42. Pattern CVC:CV

e.g. θazzra : 'running'.

The stress falls equally on both vowels.

## 43. Pattern CCVCV

e.g. θsira : 'molars; hand querns; sandals'.

The stress appears to fall on the first vowel.

## 44. Pattern C:CVCV

e.g. ššwari : 'panniers'.

The stress appears to fall on the first vowel.

## 45. Pattern CC:VCV

e.g. ḥlladi : 'man's name',

qllala : 'man's nickname'.

The stress appears to fall equally on both vowels.

## 46. Pattern CCVC:V

e.g. ʔrimma : 'knife and blades sharpener',  
 ʔsimma : 'cement'.

The stress appears to fall equally on both vowels.

47. Pattern VC<sup>1</sup>C<sup>2</sup>C<sup>3</sup>V

A schwa appears to be always inserted between C<sup>1</sup>  
 and C<sup>2</sup>

e.g. aməqʃɑ : 'irrigation ditch',  
 aməsmə : 'nail'.

The stress appears to fall equally on the two  
 vowels.

## 48. Pattern VCCC:V

e.g. aqnənni : 'rabbit'.

The stress appears to fall equally on the schwa and  
 the two vowels.

## 49. Pattern CVCVC

e.g. miziʔ : 'sweet',  
 ʔazɑθ : 'figs'.

The stress appears to fall equally on both vowels.

## 50. Pattern C:VCVC

e.g. zzitun : 'olives, olive trees',  
 ʃʃiʔan : 'Satan'.

Both vowels appear to be equally stressed.

## 51. Pattern CVC:VC

e.g. ɖammoθ : 'land, country, homeland',

ɖawwoθ : 'door'.

Both vowels appear to be equally stressed.

## 52. Pattern VCCVC

e.g. abrur : 'penis',

amzir : 'blacksmith'.

Both vowels appear to be equally stressed.

## 53. Pattern VCC:VC

e.g. abššun : 'vagina',

aḥššun : 'idem'.

The stress appears to fall equally on both vowels.

54. Pattern C<sup>1</sup>C<sup>2</sup>C<sup>3</sup>VC

A schwa is always inserted between C<sup>1</sup> and C<sup>2</sup>.

e.g. məseuθ : 'man's name',

rəeyub : 'defects'.

The stress appears to fall on the vowel.

## 55. Pattern C:CCVC

A schwa is always inserted after C:

e.g. ssənduq : 'box',

ddəbriž : 'bracelet'.

The stress appears to fall equally on the schwa and the vowel.



## 56. Pattern CCC:VC

e.g. ər**ġ**gūə : 'acorn'.

The stress appears to fall on the vowel.

57. Pattern C<sup>1</sup>C<sup>2</sup>C<sup>3</sup>C<sup>4</sup>V

A schwa appears to be always inserted between C<sup>2</sup> and C<sup>3</sup>,

e.g. rmə**n**šə : 'saw',

sgə**n**fa : 'to rest',

zgə**n**fa : 'to cure'.

The stress appears to fall equally on the schwa and the vowel.

## 58. Pattern VCVCV

e.g. a**ž**iəə : 'eagle'.

All three vowels appear to be equally stressed.

## 59. Pattern VCVC:V

e.g. anuffə : 'act of hiding',

azannu : 'beetle'.

All three vowels appear to be equally stressed.

## 60. Pattern CVCCC

e.g. bu**ħ**bər : 'life',

əab**š**əč : 'onions'.

The stress appears to fall on the vowel.

## 61. Pattern C:VCCC

e.g. ššiybəθ : 'man's nickname'.

The stress appears to fall on the vowel.

62. Pattern C<sup>1</sup>VC:C<sup>2</sup>C<sup>3</sup>

A schwa appears to be always inserted after C:

e.g. əammənd : 'armpit',

əaddəxθ : 'honey',

əiššəšθ : 'flea'.

The stress appears to fall equally on the vowel and on the schwa.

## 63. Pattern CVCC:C

e.g. əayzzəč : 'cutlet'.

The stress appears to fall equally on the vowel and the schwa.

64. Pattern C<sup>1</sup>C<sup>2</sup>C<sup>3</sup>C<sup>4</sup>V

A schwa appears to be always inserted between C<sup>2</sup> and C<sup>3</sup>,

e.g. msərqə : 'to meet',

msəbəa : 'to leave each other'.

The stress appears to fall equally on the schwa and the vowel.

65. Pattern VC<sup>1</sup>C<sup>2</sup>C<sup>3</sup>V

A schwa appears to be always inserted between C<sup>1</sup> and C<sup>2</sup>

- e.g. amənzʊ : 'the youngest son',  
 anəbəʊ : 'summer',  
 asəndʊ : 'churning of milk'.

The stress appears to fall equally on the schwa and the two vowels.

66. Pattern CCCCC

- e.g. nḡəγzəm : 'to twist an ankle'.

Both schwas appear to be equally stressed.

67. Pattern C:CCCC

- e.g. ssənsərč: 'chain, necklace'.

Both schwas appear to be equally stressed.

68. Pattern CCVCC

- e.g. ərišθ : 'saddle'.

The stress falls on the vowel.

69. Pattern C<sup>1</sup>C<sup>2</sup>VC:C<sup>3</sup>

A schwa appears to be always inserted after C:

- e.g. skussəf : 'to spit',  
 sbuzzə : 'to kill',  
 sbugḡə : 'to stamp on wet soil and make  
 mud out of it'.

The stress appears to fall equally on the vowel and the schwa.

## 70. Pattern CCVCC:

e.g. ɒboʒətt̪ : 'window'.

The stress appears to fall equally on the vowel and the schwa.

71. Pattern VC<sup>1</sup>C<sup>2</sup>C<sup>3</sup>C<sup>4</sup>

A schwa appears to be always inserted between C<sup>1</sup> and C<sup>2</sup> and between C<sup>3</sup> and C<sup>4</sup>

e.g. arəhbəθ : 'place in the market where wheat, barley, maize, etc. are sold',

arəhməθ : 'blessing',

asənqəs : 'unsweetened tea'.

The stress appears to fall equally on both schwas.

## 72. Pattern CCCVC

e.g. mənɛəs̃ : 'next year'.

The stress falls on the vowel.

## 73. Pattern CCCCVC

e.g. ɜrmənʃə : 'saw'.

The stress appears to fall equally on the schwas and the vowel.

74. Pattern VC<sup>1</sup>C<sup>2</sup>C<sup>3</sup>VC<sup>4</sup>

A schwa appears to be always inserted between C<sup>1</sup> and C<sup>2</sup>

e.g. aɪəybub : 'hair',

aqəbqab : 'one slipper',

ayəmbub : 'face'.

The stress appears to fall on the vowels and the schwa.

75. Pattern VCCVCV

e.g. amhaʒ̣α : 'refugee',

amɬaɬ̣α : 'slap',

ameaʒ̣α : 'companion'.

All three vowels appear to be equally stressed.

76. Pattern VCVCVC

e.g. aʒ̣arig : 'lie',

axariq : 'idem'.

All three vowels appear to be equally stressed.

77. Pattern VCVC:VC

e.g. aɬubbiz : 'first',

aquẓɬie : 'backside'.

All three vowels appear to be equally stressed.

78. Pattern CVCCVC

e.g. ɬanqat : 'sugar powder',

ɬamɣαθ : 'woman, wife',

ɬaeʒ̣eθ : 'relatives; tribesmen'.

Both vowels appear to be equally stressed.

## 79. Pattern CVCC:VC

e.g. ʔamddiθ : 'evening; night',

ʔiʃffat : 'broom',

ʔaʃbbæθ : 'patient woman'.

Both vowels appear to be equally stressed.

## 80. Pattern CCVCCV

e.g. rmiḥʃα : 'The Day of Judgement',

ʔqaqra : 'frog',

ʔwaθra : 'begging'.

Both vowels appear to be equally stressed.

## 81. Pattern CCVCVC

e.g. ʔyazit : 'hen',

ʔḥaʒit : 'folktale',

ʔzaḡiθ : 'prayer',

mʃuɾuh : 'to reconcile'.

Both vowels appear to be equally stressed.

## 82. Pattern CCVC:VC

e.g. ʔšaʃʃit : 'cap',

ʔsammut : 'pillow'.

Both vowels appear to be equally stressed.

## 83. Pattern CCCVCV

e.g. bændidi : 'man's name',

məḥʒuba : 'woman's name',

məʃeuða : 'dog's name'.

The stress appears to fall equally on the schwa and the vowels.

84. Pattern CCCVC:V

e.g. bəneʊ<sup>ː</sup>z̥a: 'man's name'.

The stress appears to fall equally on the two vowels.

85. Pattern CVCVCC

e.g. ʔaʔund : 'fat',

ʔaʔofθ : 'wool'.

Both vowels appear to be equally stressed.

86. Pattern CVC:VCC

e.g. ʔaqqeḥθ : 'patch',

ʔa<sup>ː</sup>z̥asθ : 'winter'.

Both vowels appear to be equally stressed.

87. Pattern CVCVCV

e.g. ʔukaʔa : 'theft',

ʔaya<sup>ː</sup>za : 'plough'.

All three vowels appear to be equally stressed.

88. Pattern CVCVC:V

e.g. ʔisumma : 'pillows'.

All three vowels appear to be equally stressed.

89. Pattern  $C^1VC^2C^3C^4C^5$ 

A schwa appears to be always inserted between  $C^3$  and  $C^4$

- e.g.  $\partial aw\theta\partial$ nd : 'female',  
 $\partial ary\partial$ nd : 'she-camel',  
 $\partial af\partial\partial$ nd : 'toe'.

The stress appears to fall equally on the vowel and the schwa.

## 90. Pattern CVCC:CC

- e.g.  $\partial irt\ddot{t}\partial\check{s}\theta$  : 'the small finger'.

The stress appears to fall equally on the vowel and the schwa.

91. Pattern  $VC^1C^2VC^3C^4$ 

A schwa appears to be always inserted between  $C^3$  and  $C^4$

- e.g.  $anfuf\partial$ n : 'lips',  
 $an\check{s}u\check{s}\partial$ n : 'idem',  
 $ibri\partial\partial$ n : 'roads'.

The stress appears to fall equally on the vowels and the schwa.

92. Pattern  $VC^1C:VC^2C^3$ 

A schwa appears to be always inserted between  $C^2$  and  $C^3$

- e.g.  $ibz\ddot{z}i\partial\partial$ n : 'urine',



isqqirən : 'slaps',

imẓzuyən : 'ears'.

The stress appears to fall equally on the vowels and the schwa.

93. Pattern  $C^1C^2VC^3C^4C^5$

e.g. əxaðənd : 'ring',

ənifəsə : 'ashes',

əyeðənd : 'scorpion'.

The stress appears to fall equally on the vowel and the schwa.

94. Pattern  $C^1C^2C^3C^4VC^5$

A schwa appears to be always inserted before  $C^1$  and between  $C^2$  and  $C^3$ ,

e.g. ərməʃmaš : 'apricots',

ərməftaḥ : 'key',

ərqəndir : 'oil lamp'.

The stress appears to fall equally on the schwas and the vowel.

95. Pattern CC:CCVC

e.g. bnnəɛman : 'poppy flower'.

The stress appears to fall equally on the schwa and the vowel.

96. Pattern CCCCCC

e.g. rəmyəndəf : 'a person who never smiles'.

The stress appears to fall equally on the schwas.

97. Pattern CVCCCV

e.g. ɖasɡ̌ya : 'riverbed'.

The stress appears to fall equally on both vowels.

98. Pattern VCVCVCV

e.g. ayaɾabu : 'ship',

iyaɾuba : 'ships'.

All the vowels are equally stressed.

99. Pattern VCVCCVC

e.g. abaqʒiǯ : 'cockroach'.

The stress appears to fall equally on all the vowels.

100. Pattern CVCVCVC

e.g. ɣalawat : 'candy',

ɖamaɶag : 'bitter'.

All three vowels are equally stressed.

101. Pattern CVCVC:VC

e.g. ɖanunnat : 'cooking'.

All three vowels are equally stressed.

102. Pattern C<sup>1</sup>VC<sup>2</sup>C<sup>3</sup>C<sup>4</sup>C<sup>5</sup>C<sup>6</sup>

A schwa appears to be always inserted between C<sup>2</sup>

and C<sup>3</sup> and between C<sup>4</sup> and C<sup>5</sup>,

e.g. ʔahəndəʃθ : 'prickly pears',

ʔaxəməʃθ : 'big knife',

ʔasəbnəʃθ : 'woman's scarf'.

The stress appears to fall equally on the vowel and the schwa.

103. Pattern CVCCVCC

e.g. ʔaqzind : 'she-dog',

ʔaqmund : 'kiss'.

The stress appears to fall equally on all the vowels.

104. Pattern CVCC:VCC

e.g. ʔaʃt̪t̪ufθ : 'ant',

ʔaɛddisθ : 'stomach'.

The stress appears to fall equally on all the vowels.

105. Pattern VCCVC:VC

e.g. afqaqqaz : 'unripe figs'.

The stress appears to fall equally on all the vowels.

106. Pattern C<sup>1</sup>VC<sup>2</sup>VC<sup>3</sup>C<sup>4</sup>C<sup>5</sup>

A schwa appears to be always inserted between C<sup>3</sup> and C<sup>4</sup>,

- e.g.  $\partial a\dot{r}u\dot{m}\check{\partial}\theta$  : 'Christian woman',  
 $\partial a\dot{y}i\dot{y}\check{\partial}\theta$  : 'name of a plant',  
 $\partial a\dot{r}i\dot{f}\check{\partial}\theta$  : 'Rifian woman, Rifian Berber'.

The stress appears to fall equally on the vowels and the schwa.

107. Pattern CVCVCVCC

- e.g.  $\partial a\dot{n}u\dot{q}i\dot{f}\theta$  : 'small hole'.

All the vowels are equally stressed.

108. Pattern CVCCCCC

- e.g.  $\partial i\dot{y}\check{\partial}z\check{\partial}\check{\partial}nd$  : 'name of a plant'.

The stress appears to fall equally on the schwas and the vowel.

109. Pattern CVCCC:CC

- e.g.  $\partial a\dot{q}n\check{\partial}n\check{\partial}\check{\partial}\check{\partial}\check{\partial}\theta$  : 'rabbit'.

The stress appears to fall equally on the vowel and the schwas.

110. Pattern CVCCCC:V

- e.g.  $\partial i\dot{z}\check{\partial}r\check{\partial}m\check{\partial}m\check{\partial}\check{\partial}\check{\partial}\check{\partial}\check{\partial}$  : 'lizards'.

The stress appears to fall equally on the vowels and the schwas.

111. Pattern  $C^1VC^2C^3C^4VC^5$

A schwa appears to be always inserted between  $C^2$  and  $C^3$ ,

e.g.  $\partial az\partial\epsilon bu\check{c}$  : 'small bag',

$\partial aq\partial sme\theta$  : 'chin',

$\partial ah\partial y\partial o\theta$  : 'sheepskin'.

The stress appears to fall equally on the vowels and the schwa.

112. Pattern CCVCCVC

e.g.  $\check{s}wa\check{s}way$  : 'in a while; slowly',

$\partial zizwit$  : 'bee'.

All vowels appear to be equally stressed.

113. Pattern VCCVCCC

e.g.  $im\check{z}ah\partial n$  : 'holy warriors'.

The stress appears to fall equally on the vowels and the schwa.

114. Pattern  $VC^1VC^2VC^3C^4$

A schwa appears to be always inserted between  $C^3$  and  $C^4$

e.g.  $ifunas\partial n$  : 'cows',

$i\check{s}arig\partial n$  : 'lies',

$i\check{z}a\theta ir\partial n$  : 'mats'.

The stress appears to fall equally on the vowels and the schwa.

115. Pattern CVCC:VCV

e.g.  $mu\check{h}mmadi$  : 'man's name'.

All the three vowels appear to be equally stressed.

## 116. Pattern CVCVCCV

e.g. ʔizizwa : 'bees',

ʔanufra : 'hiding; hide and seek'.

All the three vowels appear to be equally stressed.

## 117. Pattern CVCVCC:V

e.g. ʔabaymma : 'kind of bug'.

The stress appears to fall equally on the three vowels.

## 118. Pattern CCCCVC

e.g. ʔarkaswiyaθ : 'a cloth covering a coffin'.

The stress appears to fall equally on the schwas and the vowel.

## 119. Pattern VCCCVCC

e.g. ixarxaran : 'kind of bracelets'.

The stress appears to fall equally on the vowels and the schwas.

## 120. Pattern CVCCVCVC

e.g. ʔiqṛabin : 'baskets',

ʔimyarin : 'women',

ʔineaṣin : 'money'.

All vowels appear to be equally stressed.

## 121. Pattern CVCC:VCVC

e.g. ʔiqmmumin : 'kisses',

ðižmmaein : 'words, utterances'.

All vowels appear to be equally stressed.

122. Pattern CVCCVC:VC

e.g. ðaqmižžat : 'shirt'.

The stress appears to fall equally on all the vowels.

123. Pattern VCCCVCCVC

e.g. iγəzəisan : 'roofbeams; ribs'.

The stress appears to fall equally on the vowels and the schwa.

124. Pattern C<sup>1</sup>VC<sup>2</sup>C<sup>3</sup>C<sup>4</sup>VC<sup>5</sup>C<sup>6</sup>

A schwa appears to be always inserted between C<sup>2</sup> and C<sup>3</sup>

e.g. ðaγənžəšθ : 'spoon',

ðaməšməšθ : 'apricot tree',

ðašəfšafθ : 'eucalyptus tree'.

The stress appears to fall equally on the two vowels.

125. Pattern CVCVCVCC

e.g. ðašiyafθ : 'summer crops'.

The stress appears to fall equally on all the vowels.

## 126. Pattern CVCVC:VCC

e.g. ʔamazzaʃθ : 'teats'.

All the vowels appear to be equally stressed.

## 127. Pattern CVCCVCCV

e.g. ʔanfisra : 'small window'.

The stress appears to fall equally on all the vowels.

128. Pattern VC<sup>1</sup>VC<sup>2</sup>C<sup>3</sup>VC<sup>4</sup>C<sup>5</sup>

A schwa appears to be always inserted between C<sup>4</sup> and C<sup>5</sup>

e.g. imiɣziwən : 'small worms found in the  
excrement of human beings',  
ifaθriwən : 'branches',  
ibayriwən : 'crows'.

The stress appears to fall equally on the vowels and the schwa.

## 129. Pattern CVCCCVCV

e.g. ʔamazg<sup>y</sup>iθa: 'mosque'.

The stress appears to fall equally on the vowels and the schwa.

## 130. Pattern CVCCVCCC

e.g. ʔatsaεəʃθ : 'kind of rifle'.

The stress appears to fall equally on the vowels and the schwa.



131. Pattern CVCCVC:CC

e.g. əafriɡ<sup>ˈ</sup>ɡəsθə: 'swallow'.

The stress appears to fall equally on the vowels and the schwa.

132. Pattern VCCVCVCC

e.g. ixbəʒi<sup>ˈ</sup>yən : 'spies'.

The stress appears to fall equally on the vowels and the schwa.

133. Pattern CVCVCCVC

e.g. əi<sup>ˈ</sup>rəʃwin : 'sort of a net used for carrying  
crops and grass'.

The stress appears to fall equally on the vowels.

134. Pattern CVCVCCCC

e.g. əaʒəʃ<sup>ˈ</sup>rəʃθə : 'kind of bird'.

The stress appears to fall equally on the vowels and the schwa.

135. Pattern CVCVCCCV

e.g. əubuhə<sup>ˈ</sup>rya : 'madness'.

The stress appears to fall equally on the vowels and the schwa.

136. Pattern CVCVCVCVC

e.g. əiboʒə<sup>ˈ</sup>θin : 'windows',

ðifunasin : 'cows',

ðizitunin : 'olive trees'.

All vowels appear to be equally stressed.

137. Pattern CVCVC:VCVC

e.g. ðimaẓzayin: 'teats'.

All the vowels appear to be equally stressed.

138. Pattern CVCVCVC:VC

e.g. ðiẓabiyyin: 'carpets'.

The stress appears to fall equally on all the vowels.

139. Pattern C<sup>1</sup>VC<sup>2</sup>C<sup>3</sup>C<sup>4</sup>VC<sup>5</sup>VC<sup>6</sup>

A schwa appears to be always inserted between C<sup>2</sup> and C<sup>3</sup>

e.g. ðiməyriwin: 'wedding ceremonies',

ðiyəmriwin: 'corners',

ðiməšmašin: 'apricot trees'.

All the vowels and the schwa appear to be equally stressed.

140. Pattern CVCCC:VCVC

e.g. ðig<sup>y</sup>zənnayin: 'women from Gzennaya, in  
Northern Morocco'.

The stress appears to fall equally on the vowels and the schwa.

141. Pattern CVCCCCVCC

e.g. buθzəwraxθ : 'man's nickname'.

The stress appears to fall equally on the vowels and the schwa.

142. Pattern CVCCCC:VCC

e.g. θazərməmmuʃθ: 'lizard'.

The stress appears to fall equally on the vowels and the schwas.

143. Pattern CVCCVCVCVC

e.g. θisəḡyawin : 'rivers'. (and θisḡyiwin)

The stress appears to fall equally on the vowels and the schwa.

144. Pattern CVCCVCVC:VC

e.g. θiqʃriyyin : 'small pots'.

The stress appears to fall equally on all the vowels.

145. Pattern CVCCVCVCVC

e.g. θitsueay : 'rifles'.

The stress appears to fall equally on all the vowels.

146. Pattern VCVCVCVCC

e.g. ibuharuθən: 'lions'.

The stress appears to fall equally on the vowels and the schwa.

147. Pattern CVCCVC:VCC

e.g. θaftattasθ : 'piece of meat'.

All the vowels appear to be equally stressed.

148. Pattern CVCVCCVCVC

e.g. θi<sup>˘</sup>sumeaθin : 'candles'.

All the vowels appear to be equally stressed.

### Conclusion

From the above material it can be seen that for any given pattern the stress seems to be regular. Where only full phoneme vowels are present these would all appear to carry equal stress. Where schwas have been inserted the situation is perhaps rather more complicated, and in the absence of schwa insertion rules it is not possible to make a precise statement; however it appears abundantly clear that word stress is not phonemic in this dialect and that there is therefore no need to indicate it in the orthography.

### CONCLUSION

As I stated in the introduction, the devising of a system for committing an unwritten language to writing must to some extent depend upon the experience gained from its use in practice. However, any such system must be largely phonemic. Other authors: R. Basset (1897), Fr. P. Sarrionandia (1905), E. Biarnay (1917), A. Basset (1938), Renisio (1932), Fr. E. Ibáñez (1947), have committed various Rifian dialects to writing using in the process a variety of transcriptions. None of these authors however has first carried out a phonemic analysis of the type we have attempted so that their transcriptions must be considered to be to some extent at least impressionistic. Furthermore, considerations of interdialectal historical relationship, and even of historical relationship with other Berber languages, have clearly played a role in the orthographies adopted. We have ourselves tried to maintain a strictly synchronic approach which we believe to be the correct one for our present purpose.

## GLOSSARY

GLOSSARYi

ibayriwən	crows
ibuharuθən	lions
ibzẓiθən	urine
ifis	jackal
ifaθriwən	branches
ifunasən	cows
ifri	grotto
ittα	he begged
iθri	star
iθran	stars
iṭṭaw	he flies; he speeds up while running or driving
iṭuhaθən	clan in the Rif
iḏa	nowadays
imiγziwən	small worms found in the excrement of human beings
imzẓuyən	ears
imṣahθən	holy warriors
imma	(my) mother
ini	to say
inez	ankle
inna	he said

innas	he said to him
inu	mine
inya	he mounted a horse, a mule, etc.
inṇ <sup>w</sup> a	he is tired of sitting; he is very hot and very restless because of lack of action
iri	neck
ira	to play
iru	he wept
irəf	pig
irəm	animal skin
irah	he left
iss	horse
issas	he put
issu	he spread out the carpet
isəm	name
isəqrayi	he slapped me
izi	fly
izza	heartburn
išš	horn
išša	he ate
išari	ram
ižž	one
ižaθiran	mats
ižžu	he bought enough wheat, barley and maize to meet the consumption of his family in a year
iššaə	he swallowed



iṣṣαθ	he hid him; he did not betray him
izi	gall-bladder
izzan	excrement
izo	he kissed; he visited the tomb of a saint
izzuθ	he planted it
iṣṣhha	he moans
iṣṣαṭ	he made noise while playing
iṣṣaθ	he pressed it
iṣṣaz	he got hungry
ikka	he woke up; he stood up
igga	he is baking bread
ikk <sup>w</sup> α	he insulted
igg <sup>y</sup> α	field
ixx	exclamation of disgust on smelling something unpleasant or on seeing something outrageous
ixxαṭ	he had sexual intercourse
ixarxarən	kind of bracelets
iyaruba	boats
iyyam	he gave a gift of money to the bridegroom during his wedding ceremony
iṣṣaṣisan	roofbeams; ribs
iḥaz	he chased
iḥḥaṭ	he hid
iḥawər	he was careful with; he took care of
iεawəθ	he repeated something; he did some- thing again
ieyα	to play

e

eð	to get dressed
eðən	wheat
eriž	embers

a

aya	oh!, used when trying to attract the attention of a person
ayya	exclamation meaning: "look what you have done" or "go away"
ayyaw	term used by a person's maternal relatives to refer to him and his brothers
ayaṛi	what a lucky person I am
ayo	moon
awima	Oh my brother!
awaṭani	a nationalist
awwam	alfa grass
awami	when
awar	speech; words
awθəm	male
abbiš	breast
abaqžiz	cockroach
abššun	vagina

abrur	penis
afunas	ox
atay	tea
adyas	he will come
addəγ	armpit
aðan	intestines
aðuf	bone marrow
aðyaf	he will find
aðyaf	he will grill
aðyas	he/it will land
aðyaz	he/it will break
aðyuff	he/it will swell up
aðəf	to enter
aðsayid	get closer to me, become my neighbour
aṭaṣ	a lot
aṭṭan	illness that affects the eyes
aḍu	breeze
am	like
amin	amen
aman	water
amwa	like this one; calf
amzir	blacksmith
amziw	a person who eats a lot; ogre (mythical character of the Rifian folktales)
amriwən	eyelashes
amṭaḍa	slap (also amṭaḍα)
aməsme	nail

amənz <u>u</u>	the youngest son; summer crops
aməq <u>ṣ</u> α	irrigation ditch
amεa <u>ṣ</u> α	companion
amha <u>ṣ</u> α	refugee
am <u>ṣ</u> α	sickle
amya	like this
am <u>ṣ</u> a <u>ṣ</u>	hair combing
am <u>ṣ</u> an	place; seat
ani <u>ṣ</u> i	shepherd
anami	getting used to
anfuf <u>ə</u> n	lips
an <u>ṣ</u> u <u>ṣ</u> an	lips
anəb <u>ə</u> u	summer
ann <u>ə</u> γ	palate
anu	well
an <sup>w</sup> a	Oh my brother!
alam	clear the way! (said to a female)
ari	alfa
arif	The Rif, a Berber speaking area in Northern Morocco
ari <u>ṣ</u>	hair (of man); feathers
arinu	my alfa
arahb <u>ə</u> θ	place in the market where wheat, barley, maize, etc. are sold
ariy	climb!; go upstairs!
aryayi	write me
all <u>ə</u> h	Oh God!

aruf	elevated area in a room used for storage
arumi	a Christian; a European
araw	sons
araq	place, seat
arwa	sauce; rain
arəhməθ	blessing
asαðun	mule
aspanyu	Spaniard
asbayru	string
asfa	medicine (also asfa)
asəndu	churning of milk
asənqəs	unsweetened tea
azzay	cemented area in front of the house
azannu	beetle
azyaw	big basket
azzər	run!
azqqo	olive tree
ašawið	piece of old cloth
ašarig	lie
ašaqo	axe
ašyani	he will beat
ašbe	long robe with sleeves worn by men and women
ašffa	thief
aštattu	name of a clan in the Rif
ažaθir	mat

ažaluq	corrugated iron used for roofing
ažžar	widower
ažagi	oath taking
ašffa	whistling
ašawəθ	crop threshing
ašnnaž	big basket
ažarif	kind of spice
ažžar	sleep
ažwα	root, penis (vulgar)
ažmma	flute player
ažiəα	eagle
ažžžα	neighbour
ažāžα	the fact of dragging oneself
ažamum	yoke
akamiyyu	van
agaži	the act of joining the army
agra	property
ak <sup>y</sup> sum	meat
ag <sup>y</sup> me	landmark; stones indicating the limits of an estate
axaəuə	rags
axxam	room
axari	Oh my (maternal) uncle!
axariq	lie
aqayi	here I am
aqam	here is
aqqam	expression used when insulting a male or female by showing them one's middle finger

aqəḏaṣ̣	pair of wool cards
aqwe	fence
aqəwqaw	person who stutters in his speech
aqmma	gambler
aqṣṣa	scabhead
aṣir	arm
aṣarabu	boat
aṣay	take this
aṣəybub	hair
aṣəmbub	face
aḥalak	I wish
aḥray	milled wheat, barley or maize
aḥraw	buttermilk mixed with wheat, barley or maize couscous
aḥbo	hole
aḥṣṣun	vagina
aεiḡiw	filthy dirty person
aεawir	famous battle during the Rifian War
ahakus	one shoe

# α

αnu	to add
αn	flour
αr	to vomit
αqiya	woman's name

o

oθan                      orchard

u

uθəm                      face  
 ur                          heart  
 urinu                      my heart  
 ussan                      days  
 uzzar                      knife; iron  
 uşşay                      greyhound

y

yeθan                      wheat  
 yeð                          he got dressed  
 yezi                          bee  
 yariθ                      he gave it back  
 yaṛi                          What a lucky person I am!  
 yaṛbbi                      Oh God!  
 yaṇu                          he added; he increased the number  
                                  or the amount; he overwhelmed a  
                                  person in a fight  
 yaṣa                          he/it landed



yazu	he looked for
yo	moon
yufa	he found
yuma	my brother
yuri	he climbed; he went upstairs
yuša	he stole
yuša	he is taller
yẓẓuḡ	he prayed
yqqas	he tasted
yqqaz	he is digging up the ground

w

wayuriša	he did not write
wayəγriša	he did not study; he did not read;
	he is not educated
wawizəγθ	name of an area in the Rif
walu	nothing
waxxa	yes
waqila	perhaps

p

puppuḥ	man's nickname
pašpo	passport
paxita	masturbation

b

baba	(my) father
bbα	to put
bbαʔ	to relieve oneself (also bαʔ)
bubbu	water (nursery language)
buʔzəwraxθ	man's nickname
buqlal	village north of Taza in Northern Morocco
buḥḅər	life
bəndidi	man's name
bnnæman	poppy flower
bəneuẓʔ̣a	man's name

f

fa	to yawn
fafa	to look for
faxita	woman's name
faq	to wake up
fαʔ	to sweep (also ffαʔ)
furu	thread
fṭṭụṣ	woman's name
ffəɣ	to go out

t

titti	sit down! (nursery language)
tta	to beg
ttu	to forget
tuzin	name of one of the tribes of the Rif, ašt tuzin

d

diddi	(1) sore, wound, blood or something that hurts and causes pain (nursery language); (2) a warning given to a child, "do not do such and such a thing otherwise you will be punished or get hurt (nursery language)"
ddin	religion
darəb	to train
ddəbriž	bracelet
ddəm	to bite
ddən	to call for prayer
dəemuš	man's nickname

θ

θa	this one (addressing a female)
θarəb	to roof a house

ð

ðiboʒaθin	windows
ðifunasin	cows
ðitsueay	rifles
ðida	worm found in water drawn from wells
ðimaẓzayin	teats
ðimssi	fire
ðimaṣ̌maṣ̌in	apricot trees
ðimə̣yriwin	wedding ceremonies
ðineaṣ̌in	money
ðisqqa	shares
ðizitunin	olive trees
ðizizwa	bees
ðizə̣rmə̣mma	lizards
ðiṣ̌umə̣aθin	candles
ðiṣ̌ṣ̌ə̣ṣ̌θ	flea
ðiẓ̌mmaə̣in	words, utterances
ðira	writing
ðiraṣ̌win	sort of net used for carrying crops (pl.)
ðiggaz	tattooing

ðig <sup>y</sup> zannayin	women from the tribe of Gzennaya in Northern Morocco
ðiyəmriwin	corners
ðiqmmumin	kisses
ðiqṛabin	baskets
ðiqəṣṛiyyin	pots
ðeža	dreams
ðaya	that is all
ðayya	black woman servant; female slave
ðayzṛəč	cutlet
ðawθənd	female
ðawwoθ	door
ðabaymma	kind of bug
ðafriḡḡəsθ	swallow
ðafreθ	skin on surface of milk
ðafθənd	toe
ðaddαθ	house
ðaddəxθ	armpit
ðaðund	fat
ðaḡofθ	wool
ðamazag	bitter (also ḡamazag)
ðamαθ	beard (diminutive form)
ðammoθ	land; country; homeland
ðamddiθ	evening, night
ðammənd	honey
ðaməšmašθ	apricot tree
ðamza	ogress
ðanuffra	hiding; "hide and seek" (game)

ðanunnat	cooking
ðanuqifθ	small hole
ðanda	lake
ðanqqat	sugar powder (also ðanqat)
ðarifǎšθ	Rifian woman; Rifian Berber
ðara	spring (of water)
ðaryǎnd	she-camel
ðarumǎšθ	Christian woman
ðasa	liver
ðassuθ	carpets, blankets and pillows
ðasǎbnǎšθ	woman's head scarf
ðasriθ	bride
ðasǎǧya	river bed
ðasyǎθ	share
ðaziri	moonlight
ðaza	Taza, a provincial capital in Northern Morocco
ðazaθ	figs
ðazǎrmǎmmušθ	lizard
ðazqqa	roof
ðazǎǎbuč	small shoulder bag
ðašiyafθ	summer crops
ðašoθ	verse of the Koran
ðašǎyšašθ	kind of bird (also ðašayšašθ)
ðašbbǎθ	patient woman
ðašǎfšafθ	eucalyptus tree
ðayiyǎšθ	name of a plant
ðayyuč	ass

᠔ayənʒašθ	spoon
᠔ay <sup>w</sup> ggat	woman's belt
᠔aqweθ	fence or wall surrounding a house or an estate
᠔aqnənnāšθ	rabbit
᠔aqmmund	kiss
᠔aqəsmēθ	chin
᠔aqzind	she-dog
᠔ahfeθ	boys' game
᠔ahfoθ	hole in the ground
᠔aēddisθ	stomach
᠔ahəndəšθ	prickly pear
᠔aya	irrigation ditch
᠔awa	sons of
᠔ara	she gave back
᠔ubuharya	madness
᠔uka᠗a	theft
᠔wiza	work done collectively
᠔waθra	begging
᠔yazit	hen
᠔božət̚t̚	window
᠔nifəsθ	ashes
᠔mit̚	belly button
᠔rimma	knife and blades sharpener
᠔simma	cement
᠔sira	molars; hand querns; sandals
᠔sammut	pillow
᠔šaššit	cap
᠔xa᠗and	ring
᠔ye᠗and	scorpion

t

ṭṭabra	table
ṭṭažin	cooking pot, name of a dish
ṭažəm	to translate
ṭurba	religious scholars
ṭuha	man's nickname
ṭṭəf	piece
ṭṭəz	exclamation expressing indignation, reproach and disgust (also ṭṭəzz)

d

ḍḍiq	lack of room
ḍar	to hurt
ḍdaq	to refrain from talking to a person because of a misunderstanding

ə

əiṭ	eye
əabṣəč	onions
əaə	finger
əα	leg



m

mmis	son
miẓið	sweet
man	which
mani	where
mmar	to show; to advise; to supervise; to teach
maḡḡa	kind of bird
maḡa	if
mayα	why
muṣṣ̣	cat
muka	owl
muḥmmadi	man's name
rrayi	show me
rrayid	show me
msərqa	to meet
məseuð	man's name
məseuða	dog's name
məṣṣ̣	to eat meat off the bone
māḥṣ̣uba	woman's name

n

niy	to mount a horse
nniyyəθ	goodwill

ninni	sleep (nursery language)
nišan	straight
nniy	I said
nam	to get used to
numya	to grow old
nunža	woman's name
nta	to stain
naš	I, me (also našš)
ngəyʒəm	to twist an ankle
nəy	to kill

# η

ηifri	of the grotto
ηizan	of the flies
ηniyza	of the river
ηuθra	of the mountain
ηumya	of the notable of the tribe

# η<sup>w</sup>

əη <sup>w</sup>	be cooked! (also ηη <sup>w</sup> )
ηη <sup>w</sup> iy	I am tired of sitting; I am hot and very restless because of the lack of action
η <sup>w</sup> a	my brother

η <sup>w</sup> am	of your brother
η <sup>w</sup> umas	of his brother

l

listiqlal	independence
lla	no
labas	I am fine
llam	letter of the alphabet

r

rid	it is not
rirαθ	playing; game
rra	order shouted to a donkey to make it go
raman	peace; security
ralla	madam
raz	hunger (also ɾaz)
raza	this hunger (also ɾaza)
raž̌a	wait (also raž̌a)
raž̌α	good deed
raǧ	female owner of
rag <sup>w</sup> až̌	far
raq	place, seat (also ɾaq)
raȟ	to go; to leave (also ɾaȟ)

rur	to be born
ərbit	room
rəbtət	potatoes
ərbəqq	lice
ərmiḥšə	The Day of Judgement
ərməftah	key
ərməšmaš	apricots
ərmənšə	saw
rəmnəe	something solid and reliable
rəmyəndəf	a person who never smiles
ərkas	glass
ərkəswiyəθ	piece of cloth of very good quality bought by the members of a community to cover the tomb of their beloved saint
ərxəḡḡ	vinegar
rəyya	a little
rqa	to meet
ərqayid	wait for me at such and such a place
ərqaḏi	law judge
ərqaεida	habit
rəqwa	fence
rqəndir	oil lamp
ərḥədd	Sunday
rəḥḏiḏa	axe
raeyub	defects
ərəəšš	nest
ərəəzz	pride, honour
rəeqər	mind; thinking

l

liṭaḥ	fight between shepherds from different clans
laḷlaš <sup>✓</sup>	foot, leg (nursery language)
ḷah	God
ḷahinu	my God

r

raq	place, seat
raz	hunger (also raz)

s

si	a title given to the notables of a tribe
ssi	idem
sižž <sup>✓✓</sup>	to peep
ssiy	to hand
se	go!
seθ	go! (plural)
seθ	wash!
ssa	this way
saθo	roof
sammu	pillow

sakku	bisac
sax	to be washed away by the rain (soil)
su	to drink
ssu	to spread out a carpet
suff	to wet
suθ	drink! (plural)
summ	to suck
ssuq	market
sbuzzæ	to kill
sbu <sup>ʏ</sup> ggæ	to stamp on wet soil and make mud out of it
ssamræ <sup>ʏ</sup>	to make marry
ssænduq	box
snnæθ	to lean
sæns	to spend the night
ssænsar <sup>ʏ</sup> c	chain; necklace
sækk	to send
skæ	to get drunk
skukkæf	to spit
sgænfa	to cure
sæ <sup>ʏ</sup> ksu	couscous
sɣayid	buy for me!
sqaθ	to send
sqqær	to slap
shuss	to feel
seizz	to express love and affection

z

zzif	handkerchief
zzitun	olives, olive trees
ziš	long time ago
zix	by the way
zayyu	name of a mountain and a gorge on the border between Gzennaya and Beni Ouriaghel in the Rif
zzayak	from you
zawa	to insult
zawag	to implore
zaf	hair (of men)
zzaθ	in front of, in the front
zzaž	glass
zzağ	to pray
zuy	name of a medicinal plant (also zuyy)
zug <sup>w</sup> aθ	to grow tall
zgānfa	to rest
zwi	to sort bad grains from wheat, barley and maize

š

šš	eat! (also s)
ššiybəθ	man's nickname
ššitān	Satan

ššiy	I ate
šša	order shouted to a donkey to make it stop
šawα	to consult (also šawα)
ššaθ	defend yourself!; fight!; hit back!
ššaz	to plough
ššā	to fill (also ššā)
ššāš	to share
ššāq	east
ššmat	coward
šām	you (fem. sing.)
šan	to straighten

# ž

žž	leave (it)! (also ž)
žžiy	I left someone or something behind
žžawi	incense
žawα	to copulate (said of animals), (also žawα)
žarəb	to try
žar	to drag; to haul (also žar)
žan	sleep! (rude)

# š

ššif	summer
šappa	hoe



ṣafa	to travel
ṣṣa	to hide a person; to keep a secret
ṣṣaf	change
ṣṣay	to burn
ṣṣof	to step over
ṣuḏ	to blow
ṣyya	to sieve
ṣwwa	to draw; to take a photograph
ṣffa	to whistle
ṣṣaḏhəṣ̣	to make laugh

## z

ẓiy	to milk (also ẓẓiy)
ẓẓaḡ	to pray
ẓẓa	to see
ẓẓaḏ	see him !
ẓzu	to plant
ẓzuḏ	plant it !
zo	to kiss; to visit the tomb of a saint

## š

ṣ̌ṣ̌a	to fill (also ṣ̌ṣ̌a)
ṣ̌ṣ̌aḏ	to become a Koranic teacher at a cantonal mosque

ž

žaža	to drag onself
žž̌af	ravine
žž̌aθ	to make a lot of noise while playing

č

čča	to press
ččaθ	press it!
čənčana	tambourine

g

gay̌ga	there was
ggaž	to get hungry
gssaq	glue
gǧay	to lick

k

kriyu	pencil
kaṛ̌a	to read the Koran over and over and memorize it
kaṛ̌ru	cart ( <i>also Karpu</i> )
kǩa	to wake up; to stand up
kuffu	foam

g

garru

cigarette

ggα

to bake bread

k<sup>w</sup>

kk<sup>w</sup>α

to insult

g<sup>y</sup>

gg<sup>y</sup>α

to bake bread

g<sup>y</sup>maα

to hunt

x

xafi

on me

xam

on you (fem. sing.)

xari

(my maternal) uncle

xaxα

to feel exhausted

xαbuš

man's nickname

xðam

to work

xzi

to curse Satan

xzα

to look

Y

ya	towards
yaθ	to help
ya	to study; to read
yaθ	read it !
γγam	to give a gift of money to the bride- groom during his wedding ceremony
yas	he has
γγas	to slaughter
yyya	to change

q

qabu	walking stick
qabrayi	sit in front of me
qat	there she is
qaθ	there he is
qam	there is so and so
qqas	to taste
qaqqa	candy (nursery language)
qqu	to have sexual intercourse
qubbu	bucket
qqut	make love to her
qquθ	make love to him
qmma	to gamble

qlala	man's nickname
qrr	a call used to chase away cows and calves, etc. to prevent them from eating something

h

hhan	to cover; to protect
halawat	candy
haz	to chase
haṣ	a woollen towel-like garment that women wear over their head and the rest of their body
hawar	be careful with; take care of
hlladi	man's name

ε

εawnayi	help me !
εaθ	yet
εara	to uncover
εlluš	man's name

h

haž

to rage

hažuž u mažuž

mythical people of small height

hwa

to go downstairs

# BIBLIOGRAPHY

- BASSET, A. 1938. "Note sur les parlers rifains du Zerhoun" in 4<sup>eme</sup> Congrès Fed. Soc. Sav. Afr. Nord, Rabat.
- BASSET, R. 1897. 'Etude sur les dialectes berbères du Rif marocain' in Actes du XI<sup>eme</sup> Congrès Int. Orient., Paris.
- BIARNAY, E. 1917. Etude sur les dialectes berbères du Rif, Paris (Leroux).
- BYNON, J. 1978. "The internal reconstruction of Berber vowels and semivowels" in Atti del Secondo Congresso Internazionale Di Linguistica Camito-Semitica, Florence (Istituto di Linguistica e di Lingua Orientali).
- COHEN, A. 1952. The Phonemes of English, The Hague (Martinus Nijhoff).
- IBANES, FR. E. 1947. 'Voces hispano-Latinas en el dialecto Rifeño' in Verdad y vida, Madrid.
- JUSTINARD, 1926. Manuel de Berbère Marocain (dialecte Rifain), Paris (Librairie Orientaliste).
- MARTINET, A. 1956. La description phonologique, avec application au parler franco-provençal d'Hauteville (Savoie), Paris (Minard).
- RENISIO, A. 1932. Etude sur les dialectes berbères des Beni Iznassen, du Rif et des Senhaja de Srair, Paris (Editions Ernest Leroux).
- SARRIONANDIA, FR. P. 1905. Gramatica de la Lengua rifeña, Tanger.