THE NATURE OF ARABIC SONORANT CONSONANTS

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Abstract

This is an introductory article on the nature of Arabic /m/, /n/, /l/, and /r/ sounds. It is fairly descriptive. Two subsequent articles, by the same author, will deal with sound changes, namely **interchangeability**, and **epenthesis and deletion**. The present study gives a historical view on how the sounds were described by early Arabic grammarians and then shows their articulatory and binary features. It also lists their variations and discusses metathesis. Moreover, it shows the acquisition of these consonants by children with attention to gliding, transposition, deletion, metathesis, epenthesis, and assimilation. Finally, it illustrates the frequency of the sonorants in the language and the constraints on their occurrence.

1. Historical View

The four sonorant consonants, namely /m/, /n/, /l/, and /r/, exist in all Semitic languages. Abdu t-Tawwäb (1985:226) gives the following account:

/m/	mala?a	Arabic 'to fill up'	
	mälë	Hebrew	
	mlä	Aramaic	
	mal'a	Ethiopic	
	malü	Akkadian	
/n/	nafax	Arabic	'to blow'
	näfah	Hebrew	
	nfah	Aramaic	
	nafha	Ethiopic	
	bapähᴜ	Akkadian	
/l/	lubb	Arabic	'mind; kernel; core; prime'
	lëb	Hebrew	
	lebbä	Aramaic	
	leb	Ethiopic	
	libbu	Akkadian	

/r/	räs	Arabic	'head'
	räš	Hebrew	
	tïšä	Aramaic	
	re's	Ethiopic	
	rëšu	Akkadian	

Medieval Arab grammarians classify the phonemes of Arabic according to their articulation, and Bakalla (1982) provides us with a master key to this heritage. However, their phonetic description focuses upon the points of articulation. Some of these works written between 700 - 1200 C.E. are:

1 - Sibawaih: ?al-Kitäb

2 - Ibn Jinni: Sirr Sinäçat ?al-?içräb

3 - Al-Khalïl Bin Ahmad Al-Farähidi: Kitäb?al-Çayn

4 - Az-Zamakhshari: Mufassal

5 - Al-Mubarrad: ?al-Kämil

6 - Ibn Sïna: Risälah fi ?asbäb Hudüθ ?al-Hurüf

The following two categories present some of the distinguishing features that grammarians give to the four sounds under questions.

1. On the basis of the point of articulation.
"ðulaqiyyah",'apical' or roughly 'liquids':/n/, /l/ and /r/
"šafawiyyah", 'labial': /m/

2. On the basis of the manner of articulation and distinctive features.
- "bayniyyah",'sonorants' (literally 'medial') : all four
- "munxafidah", 'non-emphatic' (low):all four (but mostly /l/ , /r/)
- "sahïhah", 'consonantal' (true): all four
- "munharifah", 'lateral' : /l/
- "mukarrarah", 'trilled' : /r/
- "ġunnah", 'nasal' : /m/ and /n/
- "xafïfah", 'lax' (light) : /m/, /n/, and /l/
- "θaqïlah", 'tense' (heavy) : /r/
- "majhürah"'voiced' : all four

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counterparts by replacing, adding or deleting a segment or changing the vowels... or they may well leave the segment intact..."[206]

Accordingly, الكاروري remarks that Arabicized loanwords as viewed by سيبويه and الجواليقي can be classified into three categories :

1- Those loanwords which were subjected to segmental alterations and were analogicaly modified to fit into Arabic word patterns.

     e.g.   دِرهم (Latin 'drachma') analogical with هِجرَع 'naive'

           دينار (Latin 'denarius') analogical with ديماس 'toilet'

2- Those loanwords which were subjected to segmental alterations but, nonetheless, were not modified analogically.

     e.g. جريز، آجر، فرند (see the quotation by سيبويه)

3- Those loanwords which were neither subjected to segmental alterations nor modified analogically.

     e.g. خراسان، كركم and إبراهيم.

Yet, there is no mention by either philologists of the criteria for deciding whether a word is to undergo analogical modifications or else to be preserved intact according to its origin in the source language.

Other philologists such as الجوهري (d. 1005 A. D.) in المزهر and الحريري (d. 1122 A.D.) stressed that in order to preserve the purity of the language, borrowings should be made concordant with the phonological and morphological patterns of Arabic. Indeed, الجوهري defines المعرّب in الصحاح as that which the Arabs pronounce in concordance with their patterns [207]. otherwise, loanwords will always remain أعجمي 'foreign'.

In like manner, الحريري in a treatise on solecism cites a number of borrowings which contravene with the Arabic patterns[208].

Non-analogical		Analogical		Native Word As a Mould
loanform	Pattern	Correct Loanform	Pattern	For Analogical Pattern
هاون	فاعَل	هاوون	فاعول	فاروق
دَستور	فَعول	دُستور	فُعول	بُهلول 'jester' or 'buffon'
سَرداب	فَعلال	سِرداب	فِعلال	سِربال 'garment'
شطرنج		شِطرنج		جِردحل 'stout camel'
بَرطيل	فَعليل	بِرطيل	فِعليل	صِندير 'stout'

Generally speaking, loanwords or their derivatives, may undergo alternations aimed at making them correspond with existing Arabic patterns.

SL Loanform	Arabicized Form	Corresponding Pattern
سنك كل (persian)	سجّيل 'lumps of dry clay'	فِعّيل
سخت (persian)	سخيت 'callous, tough'	فَعليل
فدنو (Syriac)	فدّان 'acre'	فعّال

خسرو (Syriac) from كوسرو (Persian)	كسرى 'khosrau'	فَعْلى
Coulisses (French)	كواليس 'behind the scenes'	Pluralization according to the irregular pattern of فعاليل
Doublage (French)	دبلجة	مُفْعلة
Gargso (Greek) or جرجشت (Persian)	جرجس 'clay used for sealing or stamping'	فُعلل
Hairesis (Greek)	هرطقة 'heresy'	فَعْلَله
Patrikios (Greek)	بطريق 'penuin'	فَعليل
Philosophos (Greek)	فلسفة	فَعْلَله
Sindhon (Greek)	سندس 'silk brocade'	فُعلل
Scala (Italian)	سقّالة 'scaffold'	فعّالة

The process of remodelling loanwords in order to conform with Arabic word paradigms may involove vast changes in the structure of the loanword including segmental and vowel changes, metathesis, addition, elision and modification of stree-patterns. For example, the word فرملة (Italian : freno) was subjected to major changes :

1- Vowel addition : a فتحة |a| was inserted after the ف

2- Vowel elision : the 'e' after the 'r' in the original word was deleted.

3- Vowel change : the final 'o' in 'freno' was replaced by فتحة |a|.

4- Syllable addition : ل was suffixed to the word.

5- Segmental addition : a final ـة was added to the word فرمَلَة (verb form) to produce the instumental noun فرملة.

It should be pointed out that the first four changes were undertaken in order to remodel the word in accordance with the Arabic quadriliteral paradigm فعلَل . فهمي remarks that though this particular word could have been Arabicized as فرينة or فريمة the loanword form of فرملة escapes the confusion that may result from the semantic association of فرينه with فرن 'oven' and of فريمة with فرم 'mincing'. He quotes the example of the unfortunate coinage of the word جمّاز for 'tram' which is similar in pronunciation to جمباز 'gymnastic' [209], a thing which may justifi the unpopularity of the word جمّاز in comparison with its Arabicized loanword ترام .

Remodelling may tresspass to loanwords whose original pronunciations have correspondent paradigms in Arabic. The Persian word كفجلاز 'ladle' could have been arabicized as such in analogy with the word سيسبان 'sesban', yet, the Arabic form of this word is قنشليل . Such changes are warranted on account of the fact that the Arabs may change a paradigm or ferfeit another if the sound sequence of the original

contavenes with the requirements of sound harmony in Arabic[210]. Subsequently, the final ز in كنجلاز was replaced by ل to correspond with the first ل (both anterior) while the ألف (a back vowel) was replaced by a ـِ (front vowel) to effect ease of articulation by avoiding the sudden shift from front, to back and front again.

2.11. DERIVATION AND INFLECTION :

Some Arabicized loanwords (other than proper names) have been morphologically naturalized and in effect may undergo a process of derivation in line with Arabic derivational patterns and inflectional affixes.

1-Some loanwords are treated as common nouns and, therefore, may be prefixed with the definite article ال as the following words which were originally borrowed from Persian[211]. :

الديباج 'silk brocade'	الأرندج or اليرندج 'black dye'
النيروز 'New Year's day'	الفرند 'sword'
الزنجبيل 'ginger'	الياسمين 'jasmine'
اللِّجام 'bridle'	الآجر 'baked brick'

Aside from regular inflection, such words can also be nunnated when they are indefinite, thus ياسمينٌ نيروزاً، ديباجٍ...etc.

Other loan-proper names such as إبراهيم، إسماعيل، إسحاق، يعقوب، هرمز، فيروز، قارون and فرعون are treated on par with definite nouns and, hence, they are neither prefixed with the definite article nor are they subject to nunnation. However, سيبويه excludes some loan-proper names such as نوحٌ، هودٌ and لوطٌ which are nunnated owing to their easy pronunciation[212].

In similar manner, الجواليقي labels as fully naturalized words which admit the definite article whereas those that do not such as موسى and عيسى are deemed foreign[213].

2- سيبويه cites examples of loanwords which have been pluralized according to جمع التكسير 'broken plural' i.e. the irregular plural form plus an optional final ـة : [214]

e.g.			
موزج 'slipper'	→	موازجة or موازج
صولجان or صولج 'scepter'	→	صوالجة
كُربج 'store'	→	كرابجة or كرابج
طيلسان 'name of a city'	→	طيالسة
جورب 'sock'	→	جواربة or جوارب

Aside from the irregular plural patterns فواعل and مفاعل as exemplified by the above plural forms (plus the optional final ـة), loanwords may assume other patterns which may assume some intervocalic changes as in : -

(according to the كوابل ← (ات) or (by suffixing كيبلات or كابلات ← (English/French : cable) كايبل or كابل
pattern فواعل)

متر (French : metre)   أمتار ← (according to the pattern أفعال)

زبون (Syriac : زبونو)   زبائن ← (according to the pattern فعائل)

برميل (French : baril) [215]   براميل ← (according to the pattern فعاليل)

شهر (Syriac : شهرو)   أشهُر ← (according to the pattern أفعُل)

3- An Arabicized word may be suffixed with ياء النسبة 'relative ي' as in :

aramrantus (Latin)   الفصيلة الأمرنتية 'amaranth'

ideology (English)/ideologie (French) → أيدلوجي 'ideological'

tactique (French)   تكتيكي 'tactical'

4- Sometimes a given loanword or its abstracted root serves as the basis for deriving parts of speech. Ali notes, for exemple, that the abstracted root قنن from قانون (Greek : kanon) has yielded[216]: -

قنّن 'legistlate'   مقنّن 'legistlator'

مقنّن 'formed in accordance   قانوني 'lawful'
with the law'

تقنين 'legistlation'   قوانين 'laws'

Similarly, the abstracted root لجم the Persian لكَام has yielded [217] :-

ألجم 'to bridle'   إللّجم 'to be bridled'

إلجام 'bridling'   لجّام 'one makes bridles'

ألجمة 'bridles'   مُلجم 'bridled'

إستلجم 'ask someone to bridle a horse'

From the French 'doublage' (English : dubbing), Arabic has derived the following:-

دبلجة 'dubbing' يدبلج 'dub'

مدبلج 'dubbed'   دوبلاج 'dubbing technician/switcher'

Finally, from the Turkish 'manovara' [218], Arabic has the noun مناورة and the verb يناور 'to manœuvre' which is a good example of an ill-conceived Arabicized word. The "م" in مناورة was mistakenly thought to be the nominal م as, for example, in مجابهة 'conforontation' from جابه and, accordingly, it was dropped from the verb form.

3. A NOTE ON ARABICIZING PROPER NAMES :-

الكاروري remarks that ancient Arabs subjected proper names to the same phonological and morphological changes that they often apply to common loanwords. Thus, for example, in the following names we find various changes in the forms of segmatal changes (S), addition (A), elision (E) and metathesis (M). [219]

Original Loanform	Arabicized from	Changes
أنكوري	أنقرة	S : ق → ك فتحة → و فتحة → ي A : final ة
هاران	حرّان	S : ه → ح فتحة → ألف A : doubling the ر
كامرون	قماري	S : ق → ك ي → و M : م ↔ ألف E : final ن

Some Modified Proper Loanwords in Arabic.

Nevertheless, when a proper name conforms with canons of Arabic, it is often left unchanged.

e.g. بردان (a village near Baghdad) from Persian بردان

الكاروري however, cautions against changing proper names lest the modified form be confused with other proper names as in case of 'Bologna' in Italy and 'Boulogne' in France. With respect to common pronunciations, the former should be Arabicized (or rather transliterated) بولونيا while the latter بولوين . Unfortunately, 'poland' is also alternatively Arabicized as بولونيا. An easy way out would be to abandon the Arabicized form for 'Poland' and use, instead, the common form currently in usage بولندا .

While embarking upon proper names, ancient Arab philologists contended with citing examples without canonizing any methodology for the preservation or the adaptation of the original pronunciation. الخفاجي, for instance, states, at one point, that proper names are to be analogially Arabicized, yet he stops short from setting for what, if any, analogical methods, were used by the Arabs [220]. He points out as does ابن سيده that anomalies abound in Arabicizing foreign proper names [221]. By anomalies, they mean those names which are in breach of Arabic analogical patterns. In other words, such names were not subjected to modifications as the author of جامع التعريب unequivocally states "proper names do not admit any changes"[222].

The Egyptian Language academy as well as some contemporary linguists like الكرملي and الشهابي stipulated that foreign proper names should be adopted according to their pronunciations in the source languages (or their most commonly used pronunciations)[223]. Their arguments was that most foreign proper names are used worldwide irrespective of a given language. Nonetheless, the Academy advanced that (Biblical) names which were Arabicized by ancient Arabs are to be preserved without any change[224].

e.g. Victor → بقطر

Paul → بولس

Jacob → يعقوب

Job → أيوب

Peter → بطرس

Yet, some names –when in non-Biblical texts –are transliterated nowadays as بيتر and بول، فكتور، .

Conversely the purists like الأسكندري and أحد شاكر criticized this resolution on the grounds that it will only result in the Arabic language being infiltrated by foreign sounds. Further, the public will find it difficult to pronounce foreign proper names which consist of foreign (i.e. non-Arabic) sounds [225] like the |v| |tʃ | and the |g|.

CONCLUSION :

While this study has attempted to classify the corpus of loanwords according to etymology and define the criteria for morphophonemic changes, yet many issues remained unresolved and call for more extensive analysis. For instance, subsequent studies could tackle the status of Arabic words borrowed or assimilated into other languages. A comparison can, therefore, be drawn between types of changes of loanwords in both Arabic as well as foreign languages. Further, a more thorough and precise etymological analysis is needed to account for anomalies. Finally, comparative lexicographers can compile dictionaries that list loanwords with their original SL form and TL assimilated version.

NOTES

1. Ali, p. 87
2. Holden, p.4.
3. Thornmberg, p.524.
4. Ali, p. 87
5. op. cit., pp. 97-8
6. الحمزاوي, p 171.
7. المزهر in السيوطي, vol 1, p.304.
8. المحبي , p. 17.
9. المغربي , quoted by عيد , p.86.
10. الخفاجي, p. 189, 14-15, 167, 186, 153, 62, 36 respectively.
11. Quoted by الشهابي , p.72.
12. عيد، ص118 .
13. Aziz, in META, p. 80.
14. عيدp.118 .
15. Sibawayh, al-kitab, vol. 2, p.342. Note that original Arabic text includes words like' may, or, often, frequently' which indicate that such rules admit exceptions and anomalies and are by no means conclusive.
16. الكاروري، ص 351
17. I owe the division of segmental changes to Ali (1987), pp.108-9.
18. سيبويه, p.342, the translation is by Bakalla, p.72.
19. سيبويه pp.342-3, the translation is by Bakalla, p.72.
20. In الجواليقي, the origin of إسماعيل, is given the Syriac إشماويلHowever, on p.188, he cites the Syriac شمويلfor الشمول to which the editor شاكرgives the Hebrew origin.إشمويل
21. إدي شير p. 127 cites the Persian origin as كنجه ليز . Therefore, the جis not an Arabic sound.
22. الخفاجي (1325), p.4.
23. الجواليقي, p.90, 118, 209, 221.
24. The reader may notice that some Syriac, Hebrew and other loanwords may at times appear in Arabic characters and at others in Latin alphabet. Our purpose is to preserve the form and, hence, the pronunciation of word according to the way they are quoted in our sources.
25. الجواليقي, p.90.
26. اليسوعي, p. 256.
27. الخفاجي(1325 A.H), p. 170. Notice that the Persian ج is actually closer in pronunciation to اع, a mixture of a ج and ز, hence the change to شبس ز and the ص.
28. الكاروري, p.382.
29. الجواليقي, p. 95.
30. اليسوعي, p.172.
31. عبد الرحيم, p. 155.
32. الجواليقي, p. 209.
33. Op. cit., p. 27.
34. الكاروري, p. 380.
35. الجواليقي, p. 352, attributes this change to the fact that in Arabic there is no such segmental sequence, since a ز cannot be preceded by a د
36. عبد الرحيم, p. 45.
37. Op. cit., p. 44.
38. الكاروري, p. 380 . He quotes ابن جني in الخصائص (vol. I., pp. 57-8) who justifies the change of the ز by the tendency in Arabic to replace fricative sounds such as the سز and ح in final position by plosive sounds in order to mark the ending of a word with a stop and to relieve the tension needed to produce fricatives.
39. الكاروري, p. 378.
40. الجواليقي, p. 207, yet اليسوعي, p. 191 attributes its origin to Syriac.
41. فهمي, p. 179.
42. اليسوعي, p. 211.
43. الكاروري, p. 381.
44. اليسوعي, p. 201.

45. الجواليقي, p. 302.
46. شير, p. 109.
47. اليسوعي, p. 194.
48. شير, p. 8. He also gives a possible Sanskrit origin : ragavan.
49. Op. cit., p. 68.
50. Op. cit., p. 4.
51. اليسوعي, p. 255.
52. السيوطي, in المتوكلي, p. 10 as cited by الكاروري, p. 371.
53. عبد الرحيم, p. 96.
54. اليسوعي, p. 258.
55. شير, p. 150 attributes the origin of this word to Persian, yet we are of the opinion that the Greek origin 'ankura' is phonemically more likely.
56. Again, this is a case df questionable etymology : whereas الجواليقي p. 230 attributes it to Persian الشكر, the editor of his book claims that it is a genuinely Arabic word (sec. الجواليقي, p. 230).
57. As was stated earlier under ش ← ص , شير p. 109 traces it back to Persian شمن while, here, فهمي, p. 175 refers it back to Syriac.
58. عبد الرحيم, p. 53.
59. أنيس, p. 61.
60. اليسوعي, p. 260.
61. شير, p. 109.
62. الخفاجي(1325) , p. 69.
63. شير, p.109.
64. See سيبويه pp. 342-3 where he cites the Persian loanwords كوسق 'having incomplete teeth' and قربق or كربق 'store or tavern'.
65. الكاروري, p.390.
66. Ibid
67. Ali, p. 109 – 110.
68. Ibid
69. el-Skeikh, p. 440.
70. سيبويه, p. 343.
71. Irrespective of any IPA transcription of the original vowel in the source language, we are mainly concerned, here, with representing the exact (but hypothetical) Arabic equivalent in contrast with the actual vowel in the Arabicized form.
72. اليسوعي, p. 280.
73. اليسوعي, p. 282.
74. فهمي, p. 175.
75. Ibid
76. اليسوعي, p. 25.
77. Collins English Dictionary , p. 971.
78. شير, p. 95.
79. Collins English Dictionary , p. 895.
80. شير, p. 159.
81. اليسوعي, p. 254.
82. Op. cit., p.261.
83. Op. cit., p.212.
84. عبد الرحيم, p. 154.
85. Collins Dictionary, p . 219.
86. Op. cit., p. 73.
87. شير, p. 137.
88. Op. cit., p. 263.
89. اليسوعي, p. 258.
90. Op. ciy.,p. 241.
91. Op. cit., p. 253.
92. اليسوعي p. 230.

93. Op. cit., p. 172 The |u:| in most loanwords of Syriac origin is changed to an الف in Arabic.
94. Op. cit., p. 208.
95. According to ابن جني, there are no such names in Arabic which end in a final وpreceded by a ضمة except in the verbs يدعو and يغزو (see الكاروري, p. 396). Yet, مراد كامل attributes the change to the presence of a word pattern فعلى in Arabic. See his article « Persian Words in Ancient Arabic"in Bulletin of the Faculty of Arts, Cairo, vol. 19, 1951,p. 63.
96. اليسوعي , p. 258.
97. عبد الرحيم , p. 26.
98. اليسوعي , p. 230.
99. عبد الرحيم, p. 125.
100.Op. cit., p. 26.
101.اليسوعي, p. 278.
102.Op. cit., p. 255.
103.الجواليقي , p. 99.
104.اليسوعي , p. 184.
105.سيبويه, pp. 242-3. Translated by Bakalla, pp. 72-3 (with adaptation).
106.الجواليقي, p. 6.
107.Ibid.
108.السيوطي , vol. I, p. 274.
109.Thornberg, p. 530.
110.شير,p. 21.
111.Both Greek words from اليسوعي , p. 251.
112.عبد الرحيم, p. 18
113.Op. cit. , p. 41.
114.عبد الرحيمp. 93.
115.شير, p. 59.
116.السيوعي , p. 261.
117.Op. Cit,. p. 197.
118.Op. cit,. p. 188. Note the first |g|→ ك while the second |g| → ج
119.فهمي, p. 182.
120.اليسوعي , p. 215.
121.أنيس , p. 68.
122.Adapted from Simpson, p. 71.
123.Ali (1987) p. 117.
124.Ibid.
125.Thornberg p. 53.
126.M. R. Zughloul, `Lexical Interference of English in Eastern Province Saudii Arabia", Anthropological Linguistics 20, quoted by Thorngerg, p 532.
127.Thornberg, p. 532.
128.She acknowledges this tact but under another section.
129.Op. cit, p. 530.
130.Thornberg, p. 530.
131.Op. Cit., p. 534-5.
132.سيبويه,p. 342.
133.الجواليقي, p.6.
134.The reader may notice that most loanwords with foreign vowels in this section come from French which by far has the most versatile vowel system. Consequently, French vowels are often susceptible to modifications.
135.الكاروري, p 394.
136.Ibid.
137.Ibid.
138.Ibid.
139.Ibid.
140.Peter, p. 448. The parantheses are mine. For more on the subject, see section 4.3. on misspelling and mispronunciation.

141.ابن جني p. 315.

142.Greek according to اليسوعي p. 269, but Persian according to شير, P. 142.

143.Persian according to شير, p. 65 while according to فهمي p 176 it is Greek (dokneion).

144.شير, p. 61.

145.اليسوعي, p. 222.

146.اليسوعي, p. 173.

147.Op. cit,. p. 259.

148.اليسوعي, p. 243.

149.الجواليقي, 118.

150.عبد الرحيم, p. 83.

151.شير, p. 77.

152.عبد الرحيم, p, 66,

153.Op. cit., p, 80,

154.عبد الرحيم, p. 156.

155.Bakalla. , p. 76.

156.عبد الرحيم, p. 133.

157.اليسوعي, p. 261.

158.فهمي, p. 176.

159.The Latin transcriptions of Syriac loanwords are quoted as cited by اليسوعي, p. 177,188,177 and 180 respectively.

160.سيبويه, pp. 425-6

161.Bakalla, p.41.

162.سيبويه, p. 342.

163.الجواليقي, p.5.

164.الكرملي, p.15, 82.

165.عبد الرحيم, p. 165.

166.Op. cit., 243.

167.شير, p. 145.

168.اليسوعي, p. 212.

169.المغربي, p. 41.

170.شير, p. 21.

171.فهمي, p. 179.

172.شير, p. 119.

173.Op. cit., p.4.

174.Op. cit., p.100.

175.فهمي, p. 179.

176.All example of Syriac loanwords are taken from : اليسوعي p .173-75, 177, 180, 187, 190, 191, 197, 202, 206, 208,209, However, the use of Arabic letters in source word transcription is ours.

177.اليسوعي, p. 252.

178.Op. cit., p. 263.

179.فهمي, p. 176 .

180.Op. cit., p. 266.

181.Op. cit., p. 271.

182.Ibid.

183.الكرملي, p. 15, 82.

184.اليسوعي, p. 279.

185.شير, p. 150.

186.فهمي, p. 175.

187.شير, p. 21.

188.اليسوعي, p. 247.

189.شير, p. 4.

190.For more examples, see الكرملي p. 15, 82, 85

191.شير p. 61.

192.اليسوعي, p. 228.

193.Op. cit., p. 224.

194.الجواليقي, p. 200.

195.Op. cit., p. 154,

196.الجوليقي p. 211. It is questionable though whether the word was Arabicized in its plural form owing to the presence of the awkward singular form صلوة

197.الكاروري p. 405.

198.اليسوعي, p. 251.

199.Op. cit., p. 277.

200.عبد الرحيم, p. 49. ironically, this word is etymologically of an Arabic origin دار which was passed on to other languages (including Italian, French and English) and was later Arabicized as ترسانة.

201.Op. cit., p. 104.

202.عبد الرحيم, p.13 (See note under derivation from loanwords with regard to its etymological background).

203.سيبويه p. 342. The translation is by J. Stetkevych, pp. 59-60. The paranthesis as well as some minor alterations are mine.

204.Ibid.

205.Ali (1987), p. 99.

206.الجواليقي p. 6.

207.الصحاح، الجوهري , as quoted by الشهابي , p. 18.

208.Ai (1987), p. 98.

209.فهمي, p. 211.

210.الكاروري p. 407.

211.The examples are mentioned in سيبويه, p. 19 yet without providing any etymological background information as to their source language or original forms.

212.Ibid.

213.الجواليقي, p. 5,

214.سيبويه , p. 201.

215. عبد الرحيم, p. 22, traces its origin back to Spanish : barril.

216.Ali , p. 114.

217.Ibid.

218.عبد الرحيم, p. 13 It is of questionable etymologyy; it could be from French 'manœuvre' or Latin 'manuopera' Yet, being a relatively recent lexical entry and in view of the proximity in pronunciation with 'manovara', it is most likely of a Turkish origin.

219.الكاروري, p 171. The examples are from الخفاجي, p. 35, 57, 103, 218. No etymological information is provided in either refrences with regard to source language(s) . the analysis of changes is mine.

220. الخفاجي, (1371ه), p. 205.

221. الخفاجي, (1325ه), p.3

222.جامع التعريب بالطريق القريب (author anonymous), مكتبة الأوكاف العامة ,بغداد (الكاروري see p.427)

223.الشهابي, p.20, 88 and الكرملي , p. 778,799, 1082-83.

224.الجزء4, مجلة مجمع اللغة العربية, pp. 18-21.

225. الكاروري, p. 165.