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Author(s)	Karkavelas, W. P.
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Towards A Vowel System for Crimean Gothic*

W.P. Karkavelas**

クリミア・ゴート語の現存する資料は、唯一フラマン人の外交官、A.G. Busbecq が1560年6月から1562年8月の間に書いたと推定される一通の書簡に集められているものだけである。

しかし、その資料は元の姿のままには伝えられていない。そして言語学的には、少なくとも2つのレベルにおける干渉がある。第一には、Busbecq その人である。彼は、中ネーデルランド語を母語としたので、彼が何を聞いたのか、また、どのようにそれを記録したのかという点に、中ネーデルランド語の影響があると思われる。第二には、Busbecq のインフォーマントによる干渉がある。それは、クリミア・ギリシャ語を母語とする人であったから、彼がクリミア・ゴート語を復元する際の彼の母語の影響も考えられる。

本研究は、まずクリミア・ゴート語の語彙素と字素の目録を設定し、次にクリミア・ゴート語の母音音素体系を再建することにより、その体系（Busbecq のインフォーマントが実際話した事）と後期中ネーデルランド語の綴字法の慣例と Busbecq が表示したような音の対応関係（Busbecq が実際聞き、記録した事）とを関連づけようとするものである。その得られた結果は、最後に他のゲルマン語派の言語からの証拠と照合される。この比較分析によりクリミア・ゴート語の母音音素体系のより正確な推定が可能となるとと思われる。

In order to arrive at a possible phoneme system for Crimean Gothic (CG), it is first necessary to set up a grapheme inventory (TABLE II) and posit phonetic values for the CG forms themselves (TABLE III). This task would seem simple enough were this form of Gothic still spoken. Unfortunately, in dealing with Crimean Gothic, we have only text to rely on. The corpus is small.

*クリミア・ゴート語の母音音素の体系化への一考察 (W.P. KARKAVELAS)

**大阪大学言語文化部英語教育講座

It consists of a list of 88 words and a song (*Cantilena*) of three lines (TABLE I) collected and preserved in a letter written in Latin by a 16th-century Flemish diplomat, A. G. Busbecq, and printed in at least four editions: Paris (1589), Frankfurt (1595), Amsterdam (1660) and Leipzig (1689). I shall use the Paris edition in this study.

Because Busbecq's letter is the sole source for the CG data, because there is neither an earlier nor a later stage of recorded CG development, a reliance on other extant forms in other Germanic languages that do have attested histories is necessary for a comparative method of sound reconstruction.

Although Busbecq does not date the recording of his data, it is possible to establish *termini post quem* and *ante quem* between the completion of Busbecq's so-called Third Turkish Letter and the completion of the Fourth containing the CG lexemes. Busbecq had left Constantinople in August 1562 and arrived via Vienna in Frankfurt am Main in November 1562. Since the Third Letter was completed in Constantinople June 1, 1560 and the Fourth Letter completed December 16, 1562, after his arrival in Frankfurt, it is rather certain that the *terminus post quem* is June 1, 1560 and the *terminus ante quem* August 1562. Thus Busbecq's "system" of transcribing the CG forms would correspond to a 16th-century Middle Netherlandic orthographic practice in representing the CG sounds.

None of Busbecq's four Turkish Letters in which the lists of words and song appear have come down to us in his own hand. There are only the printed copies. It is from the printed text that I have derived my primary data. Since there is only printed evidence of the data from 1589, we can assume several levels of interference. First we have the copyist who may have made errors in recording the CG data. Second, we have the typesetter who may have misread the copyist's interpretation. We might even postulate a third level of error in the proofreader's interpretation. So much for the printed text.

Busbecq himself, although a learned diplomat and familiar with a number of languages, could not be described as an accomplished linguist. In recording his data, Busbecq made use of general Middle Netherlandic (Mnl) orthographic practice. Busbecq's linguistic bias corresponds to the morphology and phonol-

ogy outlined in the Middle Netherlandic grammars. These grammars are based on the language in the literature of Flanders and Brabant, Western South Middle Netherlandic (See Le Roux p. 12; van Loey [1962], p. 5). Busbecq was a native of Flanders. We can assume that although he was certainly fluent in Mnl, he may have used certain Middle Flemish (Mfl) dialect variations as a native speaker of that dialect. These Mfl variants will be taken into account in the discussion of the Mnl vowel system and in its influence on the CG sound system (TABLE III).

There are several facts that point to Busbecq's Middle Netherlandic linguistic bias in his transcription of the lexical data: (1) The letter in which he recorded the CG material was addressed to a fellow Netherlander and classmate Nicolas Michault, Seigneur of Indeveltdt, and not specifically intended for publication. (2) Busbecq expresses a clear bias in that he expects, as he openly states in his letter, to meet several of these Crimean Goths and to record something of their language (*"Itaque me diu cupiditas tenuit vedendi ab ea gente aliquem, et si fieri posset inde eruendi aliquid quod ea lingua scriptum esset..."*). He accomplishes this and goes on to organize his lexical inventory into three categories (TABLE I): (A) *"...nostratis aut parum differentia"*, (B) *"...et pluraque alia cum nostra lingua non satis congruentia"* and (C) a list of numerals. By *"nostra lingua"* Busbecq meant 16th-century Netherlandic (Mnl). The diplomat had undoubtedly learned that there were Goths in the Crimea from a report by a Flemish Franciscan missionary, Wilhelm de Rijsbroek. Rijsbroek wrote: *"There are forty castles between Kersonma and Soldaia, almost every one of which has its own language. Among the people living there are many Goths who speak a Teutonic tongue."*

By classifying some forty words he terms *"Germanica"* into category (A), Busbecq anticipated the similarity of his language data to that of Mnl. It is therefore quite possible that in his *"system"* of transcription, Busbecq perceived the forms as sounding much closer to the Mnl sounds than they in fact did (Tomascheck). Moreover, since the diplomat had no ready-made IPA at his disposal, he recorded these sounds using the same traditional orthographic practice as he used for Mnl/Mfl.

Other problems that immediately become evident in the study are inconsistencies in the recording of the CG data (TABLE I: Corrections are marked *). A fundamental question is the actual source of the CG corpus. This appears to have been two informants who had come to Constantinople to put forth complaints at the Sultan's court. One of these was a Goth who had forgotten his native CG and spoke a form a Greek and the other a Greek merchant who had acquired a knowledge of CG through trade. Since Busbecq does not specify the Goth as his main informant, we may assume that it was the Greek. Busbecq then had only one informant whose native tongue was not CG. Here the recorded data may have phonological, morphological as well as lexical errors due to a non-native bias. Busbecq does make reference to this in the second category he sets up for the CG lexemes. He questions whether these are different because of the the nature of the language or because these are in fact not CG lexemes at all, but a type of linguistic interference, words substituted by the informant when he forgot the CG word ("*...sine quod eum fugiebat memoria et peregrina cum vernaculis mutabat.*" Greek? Tartar? Turkish? Persian?).

Exactly what the language of the interview was is not clear. Busbecq does not say. It might be speculated that since Busbecq's interpreters were Greek and his main informant a Crimean Greek, the language of the interview may have been Greek as well. It is also very likely that there was some confusion in respect to some of the lexical items, either on the part of the Greek informant, on the part of the interpreter or on the part of Busbecq himself.

It is safe to assume that the Greek informant was a native of the Crimea. This is true because of the cultural data Busbecq includes in his letter, that is, the Greek's familiarity with Greek and Tartar customs, Crimean geography and his estimated competence in CG. The informant's native language would have some influence on his pronunciation of the CG data. Unfortunately, there is no information concerning 16th-century Crimean Greek (CGk) available. The only representative study on CGk is one of a twentieth-century dialect (Mariupol Greek) by M. V. Sergievskij: "*Mariupol'skie grecheskie govory*" (1934). On the basis of this study, it is possible to reconstruct a 16th-

century CGk, a type of Greek that is important in determining the informant's pronunciation of the CG lexemes (TABLE IV).

The main objective of this paper is to discuss the relationship of the CGk phoneme system (what Busbecq's informant said) to Late Middle Netherlandic orthographic practice and the sound correspondences as Busbecq represents them in his lexical categorization (what Busbecq actually heard and recorded). The results will then be checked against evidence from other Germanic languages (TABLES III & V). Through this comparative analysis will come a more accurate approximation of a vowel phoneme system for CG.

TABLE I: *The Crimean Gothic Lexical Inventory*

The following is a comparative arrangement of Busbecq's report on the language of the Crimean Goths with Bible Gothic and Middle Netherlandic references arranged according to Busbecq's divisions in:

Augerii Gislenii Busbequii: *D. Legationis Turcicae, Epistolae quatuor. Quarum priores duae aliquot annos in lucem prodierunt sub nomine Itinerum Constatinopolitani et Amasiani. Adiectae sunt duae alterae. Eiusdem de re militari contra Turcam instituenda consilium.* Apud Aegidium Beys, via Jacobaea, ad insigne Lilii albi, Paris 1589.

(Note: Corrections are marked *, reconstructions are marked **, Mfl variations are marked °)

A. "...omnibus vero dictionibus praeponebat articulum 'tho' [00] aut 'the' [0]...nostriatitia aut parvum differentia. Haec erant."

Crimean Gothic (CG)	Bible Gothic (BG)	Middle Netherlandic (Mnl, Mfl°)
1. Broe *Broet (bread)	brauþs	broot, broet°
2. Plut (blood)	bloþ	bloet
3. Stul (stool)	stols	stoel
4. Hus (house)	hus	huus
5. VVingart (vineyard)	weina-gards	wijngaert, -gaart°
6. Reghen (rain)	rign	reghen
7. Bruder (brother)	broþar	broeder
8. Schuuester (sister)	swistar	suster
9. Alt (old)	alþeis	out
10. VVintch (wind)	wind	wint
11. Siluir (silver)	silubr	sil-, sel-, sulver

12. Goltz (gold)	gulþ	gout
13. Kor (corn)	kaurn	corn, coorn
14. Salt (salt)	salt	sout
15. Fisct (fish)	fisks	visc
16. Hoef (head)	haubip	hooft, hoeveds ^o
17. Thurn (door)	daurons	dore, dure
18. Stein, *Stern (star)	stairno	sterre, sterne
19. Sune (sun)	sunna	sonne
20. Mine (moon)	mena	mane
21. Tag (day)	dags	dach
22. Oeghene (eyes)	augona	oghen, oeghen ^o
23. Bars (beard)	baras	baert
24. Handa (hand)	handus	hant
25. Boga (bow)	buga	boghen
26. Miera (ant)	-	miere
27. Rinck (ring)	ring	rinc
28. Ringo (ring)	ring	rinc
29. Brunna (spring)	brunna	borne
30. VVaghen (wagen)	vagns	waghen
31. Apel (apple)	-	appel, apel
32. Schieten (to shoot)	skiutan	scieten
33. Schlipen (to sleep)	slepan	slapen
34. Kommen (to come)	qiman	comen
35. Singhen (to sing)	siggvan	singhen
36. Lachen (to laugh)	hlaljan	lachen
37. Eriten *Criten (to cry out)	gretan	criten
38. Geen (to go)	gaggan	gaen
39. Breen (to roast)	-	braeyen
40. Schuualth (death)	**swalta (v. swiltan)	swelten

CANTILENA

Vvara vvara ingdolou;
 Scu te gira Galtzou
 Hæmisclep dorbiza ea

B. "...alia cum nostra lingua non satis congruentia usurbat..."

Crimean Gothic	Bible Gothic
41. Knauen (good)	kawana
42. Iel (health)	**hail (hails)
43. Ieltsch (well)	**hailisks

44. Iel vburt (good health, farewell)	hails waurpai
45. Marzus (marriage)	marþus
46. Schuos (wife)	sves
47. Baar (child)	barn
48. Ael *All (stone)	hallus?
49. Menus (flesh)	mimz
50. Rintsch (mountain)	-
51. Fers (man)	vair
52. Statz (earth)	stap̃s
53. Lista (too little)	**leitista- (leita-) leitels
54. Ada (egg)	**addi (addjo)
55. Ano (hen)	hana
56. Telich (foolish) From the Turkish <i>telyq</i>	dvala-leiks
57. Stap (goat) From the Hungarian <i>czap</i>	-
58. Gadeltha (beautiful)	gad-il-ata
59. Atochta (bad)	atugata
60. VVichtgata (white)	hweit(a)gata
61. Mycha (sword)	**meikis (meki)
62. Schediit (light)	skaidan
63. Borrotsch (wish)	**(ga-)baurjodus (ga-baurjaba)
64. Cadariou (soldier)	ga-drauhts
65. Kilemschkop (drink up)	ganim scap
66. Tzo Vvarthata (thou didst)	þu waurhta
67. Ies Varthata (he did)	is waurtha
68. Ich malthata (I said)	ik maþlida

C. "Iussus ita numerabat..."

Crimean Gothic	Bible Gothic	Mnl
69. ita (one)	ains	een
70. tua (two)	twai	twee
71. tria (three)	þria (neuter)	dri
72. fyder (four)	fidwor	viere
73. fyuf *fynf (five)	fimf	fijf
74. seis (six)	saihs	ses

75. seuene (seven)	sibun	seven
76. athe (eight)	ahtau	achte
77. nyne (nine)	niun	neghen
78. thiine (ten)	taihun	tien
79. thiinita (eleven)	ainlif	ellef
80. thunetua (twelve)	twalif	twalef
81. thunetria (thirteen)	**triataihun	dertien
82. stega (twenty)	twans tiguns (acc.)	twintich
83. treithyen (thirty)	þrins tiguns (acc.)	dertich
84. furdeithien (forty)	fidwor tiguns (acc.)	veertich
85. sada (one hundred)	taihuntehund	hondert
86. hazer (one thousand)	þusundi	duzent

TABLE II: Crimean Gothic Grapheme Inventory

Vowels	Front	Central	Back
High	<i> <ii> <y>		<u>
Mid	<e> <ee>		<o>
Low			<aa> <a>

Examples	Front	Central	Back
High	Fisct Schediit Schlipen *fynf		Brunna Stul
Mid	Schuu ^u ester Geen		Goltz Boga
Low			Baar Alt VV ^a ghen

Digraphs	Front	Central	Back
High	<ie> <ye>		
Mid	<ei>		<ou> <oe>
Low			<ae> <æ>

Examples	Front	Central	Back
High	Schieten treithyen		
Mid	seis furdeithien		Cadariou Hoef
Low			Ael Hæmisclep

TABLE III

This is a summary of the Crimean Gothic vowel-grapheme to vowel-phoneme discussion to give an historical overview from the reconstructed Common Germanic (CGmc) vowel including correspondences in Bible Gothic (BG), Crimean Greek (CGk: the native language of Busbecq's informant) and Middle Netherlandic/Middle Flemish (Mnl/Mfl: the native dialects of Busbecq).

I. The Grapheme <a>

	CGmc	Mnl	Mfl	BG	CGk	CG
Short	*a	/a/	/a/	/a/	*/a/	**[a]
Long	*ā	/a:/	/a:/	/a:/	*/a/	**[a]

Note: CG* represents the reconstructed CG as the CGk informant may have produced the sounds. CG** represents the reconstructed CG.

II. The Grapheme <e>

	CGmc	Mnl	Mfl	BG	CGk	CG
Short	*e	/e/ or /ɛ/	/ɛ/	0	*/e/	**[e]
Long	*ē ₁ /*ē ₂	/e:/	/e:/	/e:/	*/e/	**[e:]
	*ai	/ɛ:/	/ɛ:/	/ai/	*/e/=[e ⁱ]	**[ɛ ⁱ]

III. The Grapheme <i>

	CGmc	Mnl	Mfl	BG	CGk	CG
Short	*i	/i/ or /ɪ/	/ɪ/	/i/	*/i/=[i]	**[i]
Long	*ē ₁ + *ī *iu + *eo	/i:/	/i:/	/i:/	*/i/=[i]	**[i:]

IV. The Grapheme <o>

	CGmc	Mnl	Mfl	BG	CGk	CG
Short	*o	/ɔ/ or /o/	/ɔ/ or /o/	0	*/o/	**[o]
Long	*ō	/ɔ:/ or /o:/	/o:/	/o:/	0	**[o:]

V. The Grapheme <u>

	CGmc	Mnl	Mfl	BG	CGk	CG
Short	*u	/ʌ/ or /y/	/ʌ/ or /y/	/u/	*/u/	**[u]
Long	*ō + *ū	/y:/	/y:/	/u:/	*/u/	**[u:]

VI. *The Digraph <ie>*

See the discussion of CGmc **i* above. In syllable initial position <ie> may point to a [je] pronunciation.

VII. *The Digraph <ei>*

Here Busbecq records the allophone of CGk **/e/= *[eⁱ]*. Busbecq perceives perhaps his Mfl quasi diphthong /eⁱ/. This is surely the case for CG "seis" **[sɛⁱ s]*.

VIII. *The Digraph <ae>*

It is standard Mnl orthographic practice to add an <e> to the vowels <a>, <o> and <u> in closed syllable to show vowel length. Such is the case in the CG "Ael" [a:ɪ].

IX. *The Digraph <ou>*

Although <ou> appears in Mfl as an orthographic variant of <oe> or /o:/ before velars and labials, it appears in the text only in word final position for the CG lexemes. I believe that at least in CG "Cadariou", Busbecq used the <ou> variant to indicate some form of CGk **[o]*.

X. *The Digraph <oe>*

<e> is a length-marker to show CG [o:].

XI. *The Digraph <œ>*

Whether this is a digraph or ligature is difficult to say since it appears only once in the text in the *Cantilena*. There are many examples in the Latin text itself. In Late Medieval Latin <a> represented an /e:/ sound. Perhaps this is the case here, if it is not a simple misprint for <ae> or <oe>.

TABLE IV

I have used M.V. Sergieskij's study ("Mariupol'skie grecheskie govory" in *Izvestiya Akademii Nauk SSSR*. pp. 533-587, 1934), on Mariupol Greek, a form of Greek spoken in the Crimea, to reconstruct a vowel phoneme system for 16th-century CGk.

Vowels	Front	Central	Back
High	[i] /i/		[u] /u/
	[ɨ]		[u]
Mid	[e]		
	[ɔ̞] /e/		[ɔ̞]
	[je]		[o]
			[o]
Low			/a/ [a]

Diphthongs	Front	Central	Back
High	/i̯/		/u̯/
Mid	/e̯/		/o̯/
Low			/a̯/

A Reconstructed 16-Century CGk Vowel System (Phonemes and Allophones)*

Vowels	Front	Central	Back
High			*[u]
	*[i/		*[u]
	*[ɨ]		*[u]
Mid			*[ɔ]
	*[e/		*[ɔ]
	*[ɛ ⁱ]		*[ɔ]
Low			*[a]
			*[a]

Some Closing Remarks on the Crimean Greek Vowel System

Twentieth-century Mariupol Greek has five diphthong phonemes. These phonemes were formed in conjunction with nouns whose stem ended in /d/ and subsequent plural formation ended in /ɣ/ as well as with verbs whose stem ended in /ɣ/ (See Sergievskij: paragraphs 7 and 65: *pi ɣad* [spring] to plural *piɣaida*, *paɣu* [I go] but *pāis* [you go]). It is difficult to say whether these diphthongs had been phonemized by the 16th century, therefore they have not been reconstructed here for CGk.

In Mariupol Greek there are five vowels in stressed position and three in unstressed position. In unstressed position, /e/ and /o/ coalesce with /i/ and /u/ (Sergievskij: paragraph 1). It is important to note here that vowel length is not phonemic in Mariupol Greek. Instead the vowels in stressed position are lengthened somewhat (Mirambel, p. 19 and p. 27). Sergievskij on the

other hand does not discuss vowel length at all. The reason for this is perhaps that in the northern dialect of Greek from which CGk developed, vowel length is not phonemic (Sergievskij, paragraphs 1 and 2). The tense allophones of Mariupol Greek /u/ and /o/ show this slight lengthening in stressed position. They have been therefore postulated for CGk. In Mariupol Greek, the open centralized allophone [ɨ] appears after dentals /d/, /t/, /l/, /n/ and velars /ɣ/ and /x/. Since these same consonants (except for /l/) are present in CGK, I have postulated this same allophone for CGk. [ɛ̃] becomes an allophone of /e/ in single-syllable words in Mariupol Greek (Sergievskij, paragraph 5) and is probably carried over into CGk. A second allophone of /e/ is [je] that appears in word initial position. This is also carried over into CGk.

TABLE V (1)

The Development of Germanic Vowels and Diphthongs into Crimean Gothic (Stressed Syllables)

Vowels								
*a	*e	*ī	*o	*u	*ā	*ē ₂ + *ē ₁	*ē ₁ + *ī	*ō *ū
**/a/	**/e/	**/i/	**/o/	**/u/	**/a:/	**/e:/	**/i:/	**/u:/
<a>	<e>	<i>	<o>	<u>	<a>	<e>	<i>	<u>
<aa>		<y>			<ae>?		<ii>	
<ae>?								

Diphthongs			Mergers	
*ai	*au	*iu *eo	$\overbrace{*ē_1 \quad *ī \quad *iu \quad *eo}^{**/i:/}$	
*/ɛ:/	**/o:/	**/i:/		
<e>	<oe>	<y>		
<i>?		<ie>		
<ei>?				

The Development of Germanic Vowels and Diphthongs into Crimean Gothic (Unstressed Syllables)

Vowels									
*a	*e	*ī	*o	*u	*a	*e	*ī	*o	*
*/ə/	**/ə/	**/ə/	**/ə/	**/ə/	**/ə/	**/ə/	**/ə/	**/ə/	**/
<a>	<e>	<i>	<o>	<u>	<a>	<e>	<i>	<o>	<u>
<e>		<e>	<e>	<e>	<e>	<e>	<e>	<e>	<e>

DIPHTHONGS

None

TABLE V (2)

The Crimean Gothic Vowel System

Vowels	Front	Central	Back
High	/i/ /i:/		/u:/ /u/
Mid	/e/ /e:/ /ɛ:/?	/ə/	/o:/ /o/ /ɔ:/
Low			/a:/ /a/

Examples	Front	Central	Back
High	F <u>i</u> sct Schlip <u>e</u> n L <u>i</u> sta *C <u>r</u> it <u>e</u> n		St <u>u</u> l Br <u>u</u> nn <u>a</u> Hus *S <u>u</u> nn <u>e</u>
Mid	Sch <u>u</u> u <u>e</u> ster R <u>e</u> gh <u>e</u> n F <u>e</u> rs s <u>e</u> u <u>e</u> ne st <u>e</u> ga?	M <u>i</u> n <u>e</u> S <u>u</u> n <u>e</u>	B <u>o</u> ga G <u>o</u> ltz T <u>z</u> o K <u>o</u> r *Br <u>o</u> et
Low			V <u>V</u> ag <u>h</u> en A <u>l</u> t s <u>a</u> da H <u>a</u> nda

Bibliography

- Feist, Sigmund (1939). *Vergleichendes Wörterbuch der Gotischen Sprache: mit Einschluss des Krimgotischen und sonstiger zerstreuter Überreste des Gotischen*. 3rd ed., E.J. Brill, Leiden.
- Jacobs, Jozef (1911). *Vergelykende Klank- en Vormleer der Middelvlaamsche Dialecten: Eerste Deel; Klankleer*. A. Siffer, Gent.
- LeRoux, T.H. and J.J. LeRoux (1969). *Middelnederlandse Grammatika*. 6th ed., J.L. van Schaik, Pretoria.
- Loey, A. van (1967). *Inleiding tot de Historische Klankleer van het Nederlands*. W.J. Thieme & Cie, Zutphen.
- Loey, A. van (1962). *Middelnederlandse Spraakkunst II. Klankleer*. 3rd ed., J.B. Wolters, Groningen.
- Mirambel, Andre (1959). *La Langue Grecque Moderne: Description et Analyse*. C. Klincksieck, Paris.

- Schönfeld, M. (1970). *Historische Grammatica van het Nederlands*. 8th ed., W.J. Thieme & Cie, Zutphen.
- Sergievsij, M.V. (1934). "Mariupol'skie grecheskie govory". *Izvestiya Akademii Nauk SSSR*. 533-587.
- Streitberg, Wilhelm (1920). *Gotisches Elementarbuch*. 5th/6th ed., Carl Winter, Heidelberg.
- Tomaschek, Wilhelm (1881). *Die Goten in Taurien*. Alfred Holder, Vienna.
- Vasiliev, Alexander A. (1936). *The Goths in the Crimea*. The Medieval Academy of America, Cambridge.
- Velde, R.G. van de (1964). "Het Krimgotisch. Berichtgeving en Problematiek." *Leuvense Bijdragen*. 54, 63-71.
- Wright, Joseph (1962). *Grammar of the Gothic Language*. 2nd ed., supplement O.L. Sayce, Clarendon Press, Oxford.