



Geometric Words Anatomy
in {Taha} & {wAw}, writing Arabic way

{tashrīcu -lkalimAt} {تَشْرِيحُ الكَلِمَاتِ - لَشْرِيحِ الكَلِمَاتِ} - {تَشْرِيحُ الكَلِمَاتِ - لَشْرِيحِ الكَلِمَاتِ}

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1- Introduction

English			Hebrew			Arabic		
EN	EW	EM	HG	HW	HB	AG	AW	AR
Camel	{kamel}	{𐤀=𐤌=𐤍}	{𐤀=𐤌=𐤍}	{gAmAl}	גמל	{𐤀=𐤌=𐤍}	{jamal}	جمال
Eye	{Ay}	{𐤀=𐤅}	{𐤀=𐤅}	{qAyn}	עין	{𐤀=𐤅}	{qayn}	عين
Earth	{Erth}	{𐤀=𐤅=𐤏}	{𐤀=𐤅=𐤏}	{xArS}	ארץ	{𐤀=𐤅=𐤏}	{xarD}	أرض
Cut	{Kat}	{𐤀=𐤏}	{𐤀=𐤏}	{keTq}	קטע	{𐤀=𐤏}	{KaTq}	قطع
Agora	{xagOra}	{𐤀=𐤅=𐤏=𐤅}	{𐤀=𐤅=𐤏=𐤅}	{xagOrah}	אגורה	{𐤀=𐤅=𐤏=𐤅}	{jOrah}	جورة

English Mirrored Geometric (EM), Hebrew Geometric (HG) and Arabic Geometric (AG) Words

Five Arabic words are selected to show similarity and discrepancy of the same words in other languages as in English and Hebrew which is written from right to left similar to Arabic.

The letters of all these languages are descendant from the same ancestor, the Canaanite and the Phoenician letters, called “Abjad Letters” as they start by “ABJD”.

The Canaanite, inspired by the Egyptian writing using pictures of animals and birds, used the the head of their mate animal, the ox, as the symbol for their first Abjad letter “Aleph” and shared their Abjad letters with their Phoenicians neighbours in the north.

The Phoenicians merchants transferred the Abjad letters to their neighbours the Greeks who made their modifications and achieved a new set of letters called “Greek Alphabet”.

The Abjad letters were also used as numerals. But, the Romans created their proper set of letters called “Latin Alphabet” and used some of their letters as numerals.

Meanwhile the Abjad letters and numerals revived in the Aramic language and then in Arabic. The Arabs developed a new set of numerals including Zero and created an advanced universal decimal system used now by every single person in this world.

The Arabs failed to spread their “Abjad Letters” similar to the “Arabic Numerals”. The Arabic Alphabet keeps retreating as in Turkey and in the Arabic world while the Latin Alphabets are progressing. The world finished by using more than one hundred different Alphabets.

However, there is an opportunity for Arabic to go back to the “Abjad Letters” and to develop a new universal simplified geometric set of letters and a universal Arabic method of writing similar to Arabic numerals and to the universal decimal system.

The Geometric consonant letters consist of **22 Phoenician letters** and **6 additive Arabic letters** and **4 English letters** missing in Arabic. The form of an Arabic letter varies following its position at the beginning, in the middle, at the end of a word or if it is alone. However, Gometric letters have unique forms regardless of their positions in a word as follows:

Added Letters						ضظغ	ثخذ	قرشت	سغفص	كلمن	حطي	هوز	أبجد																				
G	ق	ح	ط	ث	ظ	ع	ظ	ث	ق	ك	م	ن	أ																				
M	ق	ح	ط	ث	ظ	ع	ظ	ث	ق	ك	م	ن	أ																				
E	c	v	p	g	t/h	g	D	D	d	k	t	t	s	r	K	S	f	q	s	n	m	l	k	y	T	c	z	w	h	d	j	b	x

Geometric (G), Mirrored Geometric (M) & English Matching (Ew) Consonant letters

Each Geometric consonant letter could be associated with one of the three short or long movements which can be written above or below consonant letters otherwise, letters are static. Geometric movements can also be written after consonant letters and called vowels. Geometric vowels are enhanced by four additional English vowels.

Shaddah / Maddah	Sukoon / Waslah	Mad Off	Mad Kash	Mad Kasr	Mad Dum	Mad Fath	Offah	Kashah	Kasrah	Dummah	Fathah
شدة/مدة	سكون/وصلة	مد أوف	مد كسح	مد كسر	مد ضم	مد فتح	أفة	كسحة	كسرة	ضمة	فتحة
◌◌◌	◌/◌	◌	◌	◌	◌	◌	◌	◌	◌	◌	◌
◌◌◌	◌/◌	◌	◌	◌	◌	◌	◌	◌	◌	◌	◌
nn/~	n/-	O	E	I	U	A	o	e	i	u	a

Geometric (G), Mirrored Geometric (M) & English Matching (Ew) Vowels

An Arabic Geometric word consists of one or more syllable. An Arabic syllable consists of one dynamic letter as in (ب) {ba} and (با) {bA} or one dynamic letter followed by one static letter as in (فم) {fam} and (باب) {bAb} or followed by two static letters as in (فوق) {fawK} and (مارس) {mArs}. The syllables of the following linked Arabic words written using Geometric letters and matching Latin letters are separated by slashes as follows:

{bis/mi -l/lA/hi -r/rac/mA/ni -r/ra/cI/mi}

{◌◌◌\◌◌◌\◌◌◌\◌◌◌ - ◌◌◌\◌◌◌\◌◌◌\◌◌◌ - ◌◌◌\◌◌◌\◌◌◌ - ◌◌◌\◌◌◌\◌◌◌}

Geometric letters are the anatomy tools for old words encountered in different languages.

2- Anatomy of the Arabic word Camel (جمال)

The **Arabic Classic** word (جمال) {jamaL} {ج=م=ل} has three consonant letters: {j} {ج} with a short vowel {a}, {m} {م} with a short vowel {a} and {l} {ل} with an assumed (**Sukoon**).

The **English** meaning of the Arabic word (جمال) {jamaL} is (**Camel**) {kameL} {ك=م=ل} which has three consonant letters: {k} {ك} with a short vowel {a}, {m} {م} with a short vowel {e} {م} and {l} {ل} with an assumed (**Sukoon**).

The **Hebrew** meaning of the Arabic word (جمال) {jamaL} is (גמל) {gAmAl} {ג=מ=ל} which has three consonant letters: {g} {ג} with a long vowel {A}, {m} {מ} with a long vowel {A}, and {l} with an assumed (**Sukoon**) each.

We conclude that the Arabic word (جمال) {jamaL} {ج=م=ل} is slightly modified in English (**Camel**) {kameL} and in Hebrew (גמל) {gAmAl}.

3- The Arabic (ج) & the Latin (C), (j), (g)

The Phoenician name of the Camel is used in three languages. However the first letter is different. The third Abjad letter (ج) {j} {ج} was used in Arabic. This letter is often pronounced {g} in Egypt. Influenced by the Egyptian accent, both **Hebrew** and **Greek** adopted the sounds {g} instead of {j} and replaced the third Abjad letter by “**Gimel**” and “**Gamma**” and replaced the word “Abjad” by “Alphabet”. This is the first major deviation from the Abjad letters.

The **Romans**, influenced by both the Greek alphabet and the Aramic Abjad, the ancestor of Arabic and Hebrew, they introduced the third letter C to be pronounced {g} as the Gamma in Greek then as (k) and to be written some how similar to the third Arabic Abjad letter (j) (ج) or to the ninth letter called Haa (ح) missing in Latin letters and confused with Khaa (خ) in Hebrew.

The Romans took many centuries to add the missing letter (g) then the letter (J) to the Latin alphabet. The letter (C) remained as the third letter to keep compatibility with older Latin texts and to play the role of the other letters as (k) or (s) in the modern writing as in car and in race.

The **Greeks and the Romans** committed the second major deviation from the Abjad letters by the creation of vowel letters while the Arabs preserved the concept of movements associated to consonant letters. The role of short and long Arabic movements is well defined while the roles of Latin vowels may differ from word to word which implies a headache of spelling.

For compatibility with Geometric letters, the role of the English letter (C) is reassigned to the Arabic Geometric letter Haa (ح) (ح) and a new Geometric (g) letter was added. The role of English letters was completely redefined in a simple way called **wAw (writing the Arabic way)**.

4- The Arabic movements & the Latin vowels

For compatibility with Geometric vowels, the English vowels were strictly redefined as short vowels {a, u, i, e, o} and long vowels {A, U, I, E, O}. Two additional short geometric movements and two long geometric movements were added to the Arabic Geometric set of vowel letters.

The total number of symbols of Geometric movements was minimized by using a horizontal notation for short vowels and a vertical notation for long vowels and by reversing one of them.

Geometric movements or vowels can be written above or below Geometric letters or above or below a **waslah** after Geometric letters as in the horizontal short vowels {=, =̣, =̤, =̥, =̦} and the vertical long vowels {⊥, ⊥̣, ⊥̤, ⊥̥, ⊥̦}.

Other Arabic marks as Shaddah and tanween can be replaced by consonant and vowel letters.

5- Anatomy of the Arabic word Ayn (عين)

The **Arabic Classic** word (عين) {qayn} {قَيْن} has three consonant letters: {ع} {q} with a short vowel {a}, {y} with assumed (**Sukoon**) and {n} with assumed (**Sukoon**).

The **English** meaning of the Arabic word {qayn} is (**Eye**) {Ay} which has two consonant letters: **Hidden Hamzah** {x} with long vowel {A} to replace the letter {q} {ع} missing in Latin letters and {y} with assumed (**Sukoon**). The letter {n} is omitted.

The **Hebrew** meaning of the Arabic word (عين) {qayn} is (אין) {qAyn} which has three consonant letters: {ע} {y} {q} with a long vowel {A}, {y} and {n} with assumed (**Sukoon**) each.

We conclude that the Arabic word (عين) {qayn} {قَيْن} is completely modified in English (**Eye**) {⊥⊥⊥} and slightly in Hebrew (אין) {⊥⊥⊥}.

The word (عين) {qayn} means also spring and it is the Phoenician name of letter {ع} {q} which had the form of an eye. Notice that the eye and the spring are sources of natural water flow.

6- The Arabic Ayn (ع) & the English Eye (i)

It is clear that Phoenician word (عين) {qayn} {قَيْن} which means eye is assigned to the same consonant letter in Arabic and in Hebrew but the word (eye) is assigned to another completely different vowel letter (i) in English. This is a strange evolution of a Phoenician consonant letter which had the rounded shape of an ox eye to become a vowel letter with the shape of a spur.

Indeed, the original consonant letters {ع} {c} was dropped from the Latin alphabet. In {wAw}, the letter (q) which can be replaced by a soft (k) or a hard (K) is reassigned to the letter {ع} {c}.

7- Anatomy of the Arabic word Earth (أرض)

The **Arabic Classic** word (أرض) {**xarD**} {أرض} has three consonant letters: **Hamzah** {**x**} with a short vowel {**a**}, {**r**} with an assumed (**Sukoon**) and {**D**} with an assumed (**Sukoon**).

The **English** meaning of the Arabic word {**xarD**} is (**Earth**) which has three consonant letters: The **Hidden Hamzah** {**x**} with a long vowel (**Ea**) {**E**} instead of {**a**}, (**r**) with an assumed (**Sukoon**) and {**th**} with an assumed (**Sukoon**) instead of (ض) {**D**} which is missing in Latin letters.

The **Hebrew** meaning of the Arabic word {**xarD**} is {**xArS**} which has three consonant letters: **Hamzah** {**x**} with long vowel {**A**} instead of the short vowel {**a**}, {**r**} with an assumed (**Sukoon**) and (ص) {**S**} with assumed (**Sukoon**) instead of (ض) {**D**} which is missing in Hebrew letters.

We conclude that the Arabic word (أرض) {أرض} is slightly modified in English (**Earth**) {أرض} and in Hebrew (ארץ) {ארץ}.

The **Arabic Classic** article of definition (Al) {**xal**} has two consonant letters: **Hamzah** {**x**} with a short vowel {**a**} and {**l**} with an assumed (**Sukoon**). The English article of definition (the) {**dha**} has one consonant letter (th) {**dh**} with a short vowel {**e**}. The Hebrew article of definition (ה) {**ha**} has one consonant letters (ה) {**h**} with a short vowel {**a**}.

We conclude that the **defined Arabic word** (الأرض) {الأرض} is slightly modified in English (**The Earth**) {الأرض} and in Hebrew (הארץ) {הארץ}.

The hard Hebrew letter (צ) {**S**} is pronounced (ts) in Modern Hebrew and the final modification of the Hebrew word {הארץ} is {הארץ} which is the name of a daily newspaper.

The earth of Abjad letters {**xarD kanqAn**} can not speak now its own original Abjad letters...! This is due to the fact that most of the new speakers on this earth are not natives but strangers.

8- The Phoenician (Alef) & the Arabic Hamzah (ء)

The first Abjad letter “**Alef**” was initially defined by the Canaanite and represented by the head of the tame (Aleef) Canaanite ox used to plough the earth of Kanaan. It was also called **Alef** by the Phoenicians, **Alif** in Arabic, **Aleph** in Hebrew, Alpha in Greek and (**A**) in Latin.

The Arabs realized that the first Abjad letter “**Alef**” encountered in the word “**ABJAD**” is a consonant letter and also used to be the numeral One. They selected the composed symbol (أ) and called it “**Alif**” to be the first Arabic Abjad letter where (ء) is called “**Hamzah**” and refers to the first Abjad consonant letter which means to the head of the Canaanite Ox with two horns and (ا) is called extended “**Alif**” and refers to the numeral One which looks like a finger.

“**Alif Mamdoodah**” is also used as a vowel letter instead of a long movement called “**Mad fath**”.

The Arabs realized that there is something magic in the unique sound of Hamzah useful for linking the words which start with Alif and they used it in the article of definition (Al) {xal}.

Unfortunately, at a later stage they abused it once associated to the three vowel letters which were created to replace the three long movements and its spelling became a nightmare.

Aleph in Hebrew is still misunderstood. The website www.hebrew4christian.com provided the following definition: "Aleph has no sound of its own, but usually has a vowel associated with it".

This is a confusing definition. "Aleph has no sound" means it is not consonant, and "has a vowel associated with it" means it is not a vowel. Then, if it is neither consonant nor vowel, what is it?

The consonant letter Hamzah (ء) {ء} was dropped from the Greek and Latin alphabets. But, the letter (x) which can be replaced by (ks) or (egz) or (z) is reassigned to the letter (ء) {ء} in wAw.

The shape the letter X could be borrowed by the Romans from the confusing Hebrew Aleph (א) which was found difficult to handle. So, it was replaced by the vowel (A) and was thrown at the back of Alphabet to play the role of other letters but its name was inspired from the word "ox".

The Greeks and the Romans influenced by the Hebrew confusion and the Arabic evolution were unable to handle correctly the first Abjad letter, they neglected the consonant part and of it and preserved the movement as a vowel letter called Alpha or (A) respectively.

Indeed, a hidden Hamzah at the beginning of all English words starting by a vowel is assumed. For example, the vowel letter (A) in Africa represents a short movement called "Fathah" for an assumed hidden Hamzah {xafrika} {ء_ـَـء_ـَـء_ـَـ} while the last letter is simply a short movement.

Additionally, the first Abjad letter is encountered in the English indefinite article as in "a {ء_ـَـ} boy" or in "an {ء_ـَـ} orange" to indicate one boy or one orange. In French "un {ء_ـَـ}" or "une {ء_ـَـ}" is used as an indefinite article and to mean number one. However, the first Abjad consonant letter is completely ignored and was avoided in the middle or at the end of words.

The hidden Hamzah could be assumed in the middle of Arabic or Hebrew words written in English. For example the word (Israel) {ء_ـَـء_ـَـء_ـَـ}, which is the name of the prophet Jacob, is combined from two words (Isra) {ء_ـَـء_ـَـ} and (el) {ء_ـَـ} each starting with Hamzah.

In Modern Hebrew, if Aleph occurs in the middle or at the end of a word, it is treated similar to Hamzah or Alif in Arabic. But, if Aleph occurs at the beginning of a word it is treated as a hidden Hamzah associated to a vowel similar to English as in the word {ء_ـَـ} (ישראל).

9- Anatomy of the Arabic word (قطع)

The Arabic Classic word (قطع) {KaTq} {ك=ت=ق} has three consonant letters: (ق) {K} with a short vowel {a}, (ط) {T} with assumed (Sukoon) and (ع) {q} with assumed (Sukoon).

The English meaning of the Arabic word (قطع) {KaTq} in English is Cut {KaT} which has two consonant letters: {K} (ق) with short vowel {a} and {T} (ط) with assumed (Sukoon). The letter {q} (ع) missing in Latin letters is omitted.

The Hebrew meaning of the Arabic word (قطع) {KaTq} is (קטע) {KeTq} which has three consonant letters: {ק}{ט} with short vowel {e} and {ט} {u} with assumed (Sukoon)) and (ע) {v} with assumed (Sukoon).

We conclude that the Arabic word (قطع) {KaTq} {ك=ت=ق} is slightly modified in English (Cut) {KaT} and in Hebrew (קטע) {qTeK}.

Hundred of Arabic words could be derived from the three letters of the word (قطع) {KaTq} but few of them could be borrowed into other Languages. This will be the subject of another article entitled as "The Arabic Words Derivation in {Taha} and {wAw}".

10- Anatomy of the spoken Arabic word (جورة)

The Arabic spoken word (جورة) {jOrah} {ج=و=ر=ة} has three consonant letters: (ج) {j} with a long spoken vowel {O}, (ر) {r} with short vowel {a} and (ة) {h} with assumed (Sukoon). Currently, the Arabic classic word (حفرة) is used instead of this word which means a hole in the ground.

The Phoenician word (جورة) {jOrah} is still widely spoken in Arabic. There is an old nice village demolished by occupation situated on a flat area at about 25 meters above the sea level and surrounded by many hills on the Palestinian coast to north of Gaza called (الجورة) {xaljOrah}.

This word (الجورة) was borrowed by the Greek to indicate the lowest place in an assembly, in a market or amphitheatre. However, as the letter (j) was replaced by (Gamma) and as the letter (L) is often neglected by native speakers {xijjOrah}, this word was transformed to (Agora) in Greek and spread to other languages as English and Portuguese.

The Ancient Agora of Athens and the ancient market of Amman called (الجورة) {xaljOrah} near Philadilphia amphitheatre in addition to the Palestinian village (الجورة) are the best-known examples to indicate the historical evolution of the word (جورة).

In 1960 Agora was introduced as a monetary unit in Israel. Currently, one Agora is equal to one hundredth of a Shekel. Shekel was introduced as a monetary unit to replace the Palestinian Lira or Jineh after the occupation of Palestine in 1948.

11- The Arabic success in numerals

The main reasons of the unbelievable success of the universal Arabic numerals and decimal system are as follows: 1- The introduction of Zero. 2- Minimizing the number of numerals from 28 to 10 numerals. 3- Defining simple rules for counting based on the ten fingers. 4- Defining three basic units of ones, tens and hundreds to represent any number. 5- Creation of easy operations of calculations. 6- Development of a comprehensive decimal system. This decimal system spread all over the world and reproduced other numeral systems which evolved into the modern information technology revolution.

12- The Arabic failure in letters

The Arabs took the following advanced development steps in writing but unfortunately they ended by increasing the sophistication of Arabic writing.

- 1- They used special marks above or below the consonant letters to handle movements. They also added complementary but not necessary marks as Shaddah and Tanween.
- 2- They admitted the omission of short movements in order that the letters will look less super charged. This caused reading errors by guessing the movements from the context.
- 3- They created many forms of each letter depending on whether it is at the beginning, in the middle, final or isolated. Some forms are connected, other forms are not.
- 4- They replaced long movements by vowel letters. But instead of introducing new letters they used existing consonants (Alif, WAw and Yaa) and called them vowel letters.
- 5- They associated the Hamzah with vowel letters in order to help in guessing the short omitted vowels associated with Hamzah or with precedent letters.
- 6- They connected the letter (L) with the Alif associated by Hamzah or Maddah which increased the number of alternatives to handle both letters.
- 7- They used Hamzah associated with the short movement called Fathah as the first letter in the article of definition (Al) which can be suppressed for linking words.
- 8- They realized that some sounds can have a varying degree of softness. Then they adopted two versions of different light and heavy sound called hard and soft letters.
- 9- They used up to three points above or below a letter for the creation of additional letters. Finally, they added 6 new letters to the original 22 Phoenician letters.
- 10- They still repeat that the number of Arabic letters is 28 letters. Although, there are more than one hundred variations and forms of Arabic letters, movements and other marks. The letter Hamzah, associated with vowels has about ten different keys on the computer keyboard.

The Geometric method aims for the **Arabic letters** and the **Arabic writing system** to follow the successful steps of the **Arabic numerals** and the **Arabic decimal system**. Actually, those super numerals are from the matrix of these Arabic letters.