

## Arabic letters from Phoenician Letters to Geometric Phonetic Letters and Movements

The ancient Semitic alphabets had **22 consonant letters** (sounds) without dots or diacritics, and used in many Semitic languages such as the Canaanite, the Phoenician, the Aramaic, the Hebrew and the Arabic. **Unwritten short and long movements** were used in speaking to launch the sounds of these letters from the mouth.

The **first Arabic historical step**, with the dawn of Islam, was the **development of the Arabic letters by dotting some of them** and by the **addition of 6 dotted letters**: {th, kh, dh, D, Dh, gh} to have **28 letters, used also as numerals**: **9 ones**, **9 tens**, **9 hundreds** and **one thousand**, to complete the old **Phoenician decimal system**.

(أ ب ج د ه و ز ح ط ي ك ل م ن س ع ف ص ق ر ش ت) = (ث خ ذ ض ظ غ) + (أ ب ج د ه و ز ح ط ي ك ل م ن س ع ف ص ق ر ش ت) + (ت ث خ ذ ض ظ غ)

The **second Arabic historical step** was the development of a new **Arabic Decimal Numeral System**, which captured the hearts and the minds all over the world, by introducing **9 numerals** based on the number of **fingers or angles** and the **Zero** as a **dot** or a **circle**, and by developing the science of **Arithmetic** and **Algebra**.

The Arabs distinguished between a **consonant letter** which is a **sound** that can be launched outside the mouth by a **movement** of the front of the mouth in a specific direction within a specific short or long period of time, before it disappears in the ear. They recognized **3 optional short movements** (**Fathah, Dummah, Kasrah**) and **3 mandatory long movements** (**Mad Fath, Mad Dum, Mad Kasr**) for launching the sound in three main directions: **upward** by opening the mouth, **forward** by rounding the lips, and **downward** by relaxing the lower jaw. The **3 long movements** are called **Mudood**, plural of **Mad**, in **Quran** and **Vowels in classic Arabic**.

**Horizontal symbols** were written above the consonant letters in the case of **Fathah** and **Dummah**, and below it the case of **Kasrah**. Three **consonant letters** **Alif, Waw and Yaa (a, w, y)** were used as long movements and called **vowel letters**. But, **Mad Fath** in Qur'an is frequently written as a **vertical Fathah**, as in **Allah**. The Arabs added the **Hamzah above vowel letters** and **below Alif** to insure the **Alif sound**. Arabic letters **shapes** change according to their position in a word, whether they are at the beginning, in the middle, at the end, or isolated.

The Arabs also distinguished between **6 guttural consonant letters** (**Alif, Ha, Ha, Ayn, Kha, Ghayn**) and the **oral consonant letters**, which may be **Soft** with light sound as (**s, d, t, dh, k**) or **Hard** with heavy sound as (**S, D, T, Dh, K**). They realized that **Kasrah** can add **softness** to a consonant letter, as **L** in Bismillah, while **Fathah** and **Dummah** add **hardness**, as in **Allah** and **Hizbullah**. Guttural letters are not or rarely used in **Greek** and **Latin**.

The **Arabic geometric alphabet** consists of **28 consonant letters**, each letter has a single sound and unique shape including the letter **Alif or Hamzah** and **6 vowels** including **3 short movements** written **horizontally** and **3 long movements**, written **vertically**, above or below consonant letters or after them above or below a connection of letters called **Waslah**. Geometric consonant letters include **13 un-dotted** letters: **6 short letters** based on the shape of a square and **7 long letters** based on the shape of two vertically joined squares, and **15 dotted letters** made by adding one, two or three dots above or below un-dotted letters as follows:

(أ ح ع ص م) (ط ر د و ه ل ك) (ب ن ت ج ي ه ح ط ي ك ل م ن س ع ف ص ق ر ش ت) - (ث خ ذ ض ظ غ) (أ ب ج د ه و ز ح ط ي ك ل م ن س ع ف ص ق ر ش ت) - (ت ث خ ذ ض ظ غ)