Science of Arabic Lexicography: A Survey of Its Emergence and Evolution

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Abstract
The roof of everything starts from the root, when the root is properly and effectively nurtured definitely the root spreads its sprout magnificently. On the other hand, the root is nowhere to be found if it is uncared for. The same thing happens with regards to Arabic lexicography which its pioneer, al-Khalil took a great pain in leaving a work on which other lexicographers brought a leaf. This paper attempts to examine the ways and manners through which the science of Arabic lexicography had started. It begins with an introduction, a sketchy overview of the origin and the development of Arabic lexicography in the Arab world. Effort is made to review some methods adopted in the Arabic lexical works. This is followed by having a look at Arabic lexicography as it affects neighbouring areas and subsequently discuss on European lexicon. Afterwards, the paper ends with a conclusion. The paper is based mainly on data and information collected from various scholars. Other materials were also obtained from private libraries to form the data base. The study revealed that there are three main types of lexicographical books: the dictionary, the general classified vocabulary, and the short specialized vocabulary. Arabs excelled in all the three. Arabic bilingual dictionaries were rare in the Arab world, the chief exception being al-Zamakhshari’s (d.538A.H./1144 A.D.) Arabic-Persian Dictionary.

Introduction
Soon after the promulgation of Islam and the mass conversion of non-Arabs to the new religion, the need was felt for a systematic study of the Arabic language:

i. to maintain a correct reading and interpretation of the Qur’an (any mistake in reading it has always been regarded as a sin) by both Arab and non-Arab Muslims, and

ii. to make it easy for non-Arab Muslims to learn Arabic and become fully assimilated into the new ummah.

That need was immediately satisfied by the appearance of scholars devoted to the systematic observation, collection and registration of the linguistic phenomena in Arabic on their various levels. According to Ibn Khaldun, the classical Arabic language in which the Qur’an had been revealed, was subjected to two types of corruption, as a result of the spread of Islam amongst non-Arabs:

i. Corruption of the forms of words which gave rise to the science of Nahw (grammar)

ii. Corruption of the significations of words which gave rise to the science of lexicography. Thus, the twin branches of linguistic study in Arabic were born.

As far as lexicography is concerned there had been various attempts to make relatively small collections of rare words or write short monographs on some types of special vocabulary, before the magnificent attempt of the genius Arab Basran al-Khalil (d.170A.H.) to encompass all the roots (not the derivatives) of the language in one single lexicon, called al-’Ayn (after the Arabic letter ‘Ayn with which the lexicon begins). Darwish¹ states that the analytical and mathematical mentality of al-Khalil brought him to the conclusion that no number of these monographs would suffice to comprehend all the roots in the language. Besides, such monographs are bound to be full of repetitions. Al-Khalil, therefore, set his mind to invent a system which would be both comprehensive and free from repetition; he came out successful, and gave us Kitab al-‘Ayn which to us John Haywood’s words is “a landmark not only of Arabic lexicography, but in the history of world lexicography.”²

The purpose of al-Khalil’s work, as stated in the introduction, was that “through it, the Arabs should be known by means of their poetry, proverbs and discourse in an unequivocal manner”. As for the method followed, the introduction also states that he “compiled it on the letters of alif, ba’, ta’ containing what the Arabs spoke in the range of their speech and expressions, without deviating from that at all”.³

The idea upon which al-Khalil based his comprehensive non-repetitive lexicon is sometimes called ‘the theory of roots’, sometimes the permutative and sometimes the anagrammatical arrangement. To explain it in its simplest form, let us take a common tri-consonantal Arabic root r, k, b. By permutation, these three radicals theoretically can produce six forms: rkb, rbk, brk, bkr, krb, kbr. Ibn Durayd (d.321A.H.), explaining this, draws a triangle with a radical letter at each corner, thus:
One can then start from any corner and proceed in either of the two directions, forming in the meantime the theoretical six anagrams of these three radicals. Al-Khalil took each one of the Arabic letters of the alphabet, made it a title of a chapter recording in it all the roots in use wherein the letter in question forms a radical. This meant that as the lexicon progressed, the chapters became increasingly shorter. Each chapter was quantitatively subdivided into biliteral, triliteral, quadriliteral and quinquiliteral roots. Within these subsections roots were dealt with anagrammatically, all permutations of any given group of radicals being grouped together. Once a root was treated in connection with one of its radicals, it would not come up again in connection with the other. When it came to the alphabetical order of the chapters, al-Khalil did not follow either the Semitic order (‘b j d h w z … etc.) or the conventional Arabic order (’b t th …… etc.) of the alphabet. Instead, he introduced a new order based on phonetic considerations, arranging the letters according to their points of articulation, beginning with laryngeals and ending with the labials. He then added the semi-vowels or the weak letters. Thus his order runs in this way: (’- h- k- gh-); (q, k, sh, d), (s, s, z), (t, d, t), (z, dh, th), (r, l, n), (f, b, m), and (w, y). Henceforth, we shall refer to this entire phonetic quantitative anagrammatical arrangement simply as al-Khalil’s arrangement. Cumbersome a lexicon to use as al-’Ayn was, it has impressed successive generations so much that it has been rather slavishly imitated for a number of centuries, and in spite of the fact that easier arrangements had in the meantime been established. The major lexical works to follow al-Khalil’s arrangement with little or modification are: Kitab al-Jamharah of Ibn Durayd (d.321A.H.), Kitab al-Tahdhib of al-Azhari (d.370A.H.), Kitab al-Bar’ of al-Qali (356A.H.), Kitab Mukhtasar al-’Ayn of al-Zubaydi (d.379A.H.) and Kitab al-Muhkam of Ibn Sidah (d.458A.H.).

History of Lexicography

The history of lexicography is one of trial and error, but lexicon is as old as writing itself. The Sumerians’ signs on clay tablets constitute, perhaps, the world’s first classified vocabularies. The Assyrians’ coming to Babylon stimulated lexicography there. In fact, the germ of dictionary idea evolved in Assyria nearly a thousand years before Christ. The first Chinese essay in lexicography may be as old as the Assyrians. But systematic definition of a large number of characters was the Chinese Erh Ya which may be date back to between 200 B.C. and the birth of Christ. It was in reality classified vocabulary. The earliest dictionary extant is Hsu Shen’s “Shuo Wen” also in Chinese written in the first century A.D. It sets out canonical treatises and so has a parallel with early Arabic lexicography which was an aid to the understanding of the Qur’an and Hadith. Later, the Chinese type of lexicography included characters grouped phonetically irrespective of their varied written forms. The Buddhist monks must have influenced them in the way the Indian language influenced al-Khalil.

At the birth of Christ, grammar lexicography came into prominence in both Sanscrit and Greek. In Greece, Aristarchus of Samothrace (220-145B.C.) was the first to divide words into eight parts based on philosophical ideas. This was to have later effects on Latin and Arabic.

The Romans took their linguistic ideas from the Greeks, but judging by extant works, they did not compile alphabetical dictionaries. The greatest monument in Latin lexicography is Varro’s “De lingua Latina” which is a discussion of words, not a dictionary. The author lived to 27 B.C.

Meaning of Arabic Lexicography

Ta’lif al-Mu’ajim al-’Arabiyah, the equivalent of which in English is Arabic lexicography takes its root from a’jama which means to make clear. It is defined as the art or practice of writing or compilation of Arabic lexicons or dictionaries. The key word here which is an equivocal word having double meaning. One of such meanings is awdaha as the following sentence makes use of it a’ajama al-Rajul al-Kalam ( the man explained the matter) or (the man spoke clearly). In another sense, it could mean abhama in a similar sentence cited above would give us (the man spoke incorrectly). The word a’ajama on the etymological pattern of af’ala could be used and comprehended positively and at the same time negatively based on the context of its usage.

With this aim in view, we shall confine ourselves to the positive usage of the word which convinces us to agree
that al-Mu’ajim (lexicons) function thus:

 Removal of obscurities from, and explanation of ambiguities in words.7

Besides the fact that it is defined as

الكتب الجامعة لآلفاظ اللغة العربية على نمط معين

Comprehensive books comprising the words of a language based on a specific arrangement.8

We can precisely trace when it was firstly used but the earliest two lexicons that were discovered to bear the title al-Mu’jam are al-Mu’jam al-Kabir and al-Mu’jam al-Saghir by Ibn Bint Muni’ born in 214 A.H.


Qamus became known with the production of al-Fayruzabadi’s (729-817 A.H. / 1326-1414 C.E.) work called al-Qamus al-Muhit (lit. the wide ocean) but technically it denotes the comprehensive lexicon. Gradually, as time rolled on, al-Mu’jam lost its currency and finally al-Qamus became more popular, though both are still used synonymously by scholars in the field.10

Origin of Arabic Lexicon

In Arabic, we find a particularly clear picture of the process of experimentation. At first, vocabularies of limited scope and uncertain arrangement were written. The full dictionaries were written on an anagrammatic basis according to an artificial alphabetical order based on phonetic principles and separating roots according to their number of letters which they contained.

Later, roots were listed in rhymed order; that is, according to their final consonants. It is remarkable that almost from the start, the compilers of Arabic dictionaries aimed at registering the complete vocabulary materials of the language. They were, indeed, almost obsessed by the copiousness of the language and were mathematically minded in this matter. In this they differed from the earlier lexicographers of other nations, whose chief aim was to explain rare and difficult words.

Arabic soon became the language of both religion and government as Latin was in Western Europe during the middle Ages. It was not surprising that general ignorance of the written language—the language of the Qur’an and Hadith and the pre-Islamic poetry—was so often lamented and that there was a crying need for both dictionaries and grammars.

There are three main types of lexicographical books: the dictionary, the general classified vocabulary, and the short specialized vocabulary. Arabs excelled in all the three. Arabic bilingual dictionaries were rare in the Arab world, the chief exception being al-Zamakhshari’s (d.538 A.H./1144 A.D.) Arabic-Persian Dictionary. The general classified vocabulary, which might be described as a dictionary of synonyms, reached its apogee of fullness and skill with the Mukhassas of Ibn Sida (d.458 A.H./1066 A.D.), earlier efforts being Ibn Qutaybah’s Adab al-Katib and Tha’alibi’s Fiqh al-Lughah.

In line with the submission of Ibn Khallikan that nearly all Arab writers agree that Abu al-Aswad al-Du’ali (d.69 A.H./668-9 at the age of 85) and that he owed his knowledge of grammar to Caliph ‘Ali b. Abi Talib. In al-Fihrist of Ibn al-Nadim, Muhammad Ibn Ishaq said that overwhelming majority of scholars agree that grammar was taken from al-Aswad who took it from ‘Ali b. Abi Talib. This claim is justified by seen an old manuscript consisting of a few pages on al-Fa’il wal-Maf’ul (subject and object) in Madinah composed by Aswad, in the handwriting of Yahya b. Ya’mar and countersigned by ‘Allan and al-Nadr b. Shumayl.11

The rules of Arabic grammar were laid until the Umayyad period (41-132 A.H./661-750) when reports about solecism were spread wide. For instance, a person called Sa’d led a horse pass Abul-Aswad who asked him why he was not riding. The former replied in Arabic by saying:

إن فرسي ضائع

My horse is stubby

mispronouncing the word zali’un which means “lame”. Some of those present laughed, but Abul-Aswad rebuked them saying:

هؤلاء الموالون قد رغعوا في الإسلام ودخلوا فيه وصاروا لنا خويا فلو علموا كلمهم

These clients have a desire for Islam and have been converted for this reason, they have become our brothers; if only we were to lay down (the rules of) language for them.12

He, (Abul-Aswad) prepared the section on “subject and object” for them.

It is worth stating that the above blunder committed by Sa’d is not grammatical but phonological,
therefore, Abul-Aswad did not only write on syntactical topics mentioned earlier, but also included some linguistic cum lexicographical aspects in his notes. In addition, another source maintains that grammatical study was invented by Abul-Aswad based on the fact that his son Abu Harb remarks thus:

أول باب وضعة الحرف، التعجب

The first section of the art of grammar composed by
My father was on the verb of admiration.

Because he heard his daughter committing solecism with *fi’l al-Ta’ajjub* (the verb of admiration). It is reported that on a hot day, she meant to say:

ما أدمع الحر؟

How strong is the heat!

but she made a grammatical mistake in vocalization saying:

ما أدمع الحر؟

awarding nominative case to both words instead of accusative case. Thus turning her statement into a question (what is the hottest (kind of) heat?) Her father replied in Arabic thus:

القبض

The intense heat of summer

He then corrected her and laid down the rules of grammar.13

Though, none of his works is extant. He is classed as a grammarian, not a lexicographer. As earlier mentioned, the studies started by him were divided into two separate sciences: *Nahw* (grammar) and *Lughah* (lexicography or philology). In both these twin subjects, a major work of genius was produced towards the end of the 8th century, al-Khalil’s (d.170 A.H./786 A.D.) *Kitab al-‘Ayn* in lexicography and Sibawayhi’s (d. 180 A.H./796 A.D.) *Kitab fi al-Nahw* for grammar. Their works did not survive either but they are said to have been noted for their knowledge of the *gharib* (rare expressions), especially those of the Qur’an.

Here, it is enough to say that whatever philological work was carried out before al-Khalil’s time largely took the form of oral teaching; such of it as was written down was superseded by the *Kitab fil Nahw* in grammar. These works not only finally separated *lughah* from *Nahw*, they established the forms the major works on these two subjects were to take. The arrangement of the material in Sibawayhi’s *Kitab* was retained in the main by subsequent grammarians for one hundred years, while al-Khalil’s dictionary form was imitated by others for two centuries and was called al-Khalil’s method.

*Kitab al-‘Ayn* is a landmark not only in Arabic lexicography, but also in the history of world lexicography. Al-Khalil had achieved two things: he introduced the dictionary idea to the Arab world, and he propagated a deeper understanding of the nature of language. Al-Khalil adopted a means of listing the total vocabulary of the language and defining it. He left room, however, for variations and modifications without affecting the anagrammatically method and the separation of roots according to their lengths.

*Kitab al-Jamharah* of Ibn Durayd (d.321A.H.) generally followed the steps of *Kitab al-‘Ayn*, with the authors’ acknowledgement in the introduction, except for the arrangement of the chapters where Ibn Durayd has followed the alphabetical order, not the phonetic sequence. He remained, however, loyal to the anagrammatical quantitative sub-divisions of the chapter.

*Kitab al-Tahdhib* of al-Azhari (d.370A.H.), not available in print, and Haywood even doubts the existence of a complete copy of it. He describes it as “an able expansion of the ‘Ayn”. It is often quoted by later lexicographers.

*Kitab al-Bari*’ of al-Qali (356A.H.), has been reproduced in facsimile ed. by A.S. Pulton of the British Museum, who speaks of it as having been “in its day, the most comprehensive Arabic lexicon that had yet appeared”. It follows the entire arrangement of al-Khalil.

*Kitab Mukhtasar al-‘Ayn* of al-Zubaydi (d.379A.H.), a universally praised abridgement of *al-‘Ayn*, *Muhit al-Lughah* of Ibn ‘Abbad (d.385A.H.), seems to have started the habit of using metaphorical terms about sea in dictionary titles. It is entirely arranged after *al-‘Ayn*.

*Kitab al-Mukham* of Ibn Sidah (d.458A.H.), the last work to cling to al-Khalil’s arrangement, even after the appearance and diffusion of al-Jawhari’s arrangement. It is still a manuscript, but has been greatly praised as “the greatest of the lexical works composed since the age of Sihah and it is held in very high estimation for its copiousness, its accuracy and its examples from classical poets”.14

**Modern Dictionary Arrangement**

The full honour for the introduction of the modern dictionary arrangement in toto appears to have been reserved for a great scholar al-Zamakhshari, who has accurately observed all the features of the modern alphabetical arrangement in his book entitled *Asas al-Balaghah* (the basis of eloquence). In contrast to al-Jawhari, who boasts proudly of having introduced an unprecedented arrangement, al-Zamakhshari18 is satisfied by modestly pointing out, in the introduction to his work, that he has chosen for it “the most known and the easiest arrangement so that the person consulting it will fall upon his desire, finding it readily within easy reach.” Although, Darwish
unequivocally credits al-Zamakhshari as the first to perfect the modern alphabetical arrangement and apply it accurately in a large lexicon, but Haywood appears doubtful on this. The fact that al-Zamakhshari has written another lexical work called *al-Fa’iq*, on the vocabulary of the traditions (which in all probability was written prior to *al-Asas*), where he applied the modern arrangement only imperfectly, indicates that it was al-Zamakhshari who, through his own personal experience, perfected this modern arrangement and put it to accurate application. Haywood has discovered the imperfect application of the modern arrangement in *al-Fa’iq* which he describes thus:

> The work is divided into 28 books, containing words beginning with the various letters from hamzah to ya’. Within these books words are arranged in chapters according to the second letter of their roots. But in these chapters, the arrangement is either haphazard, or in accordance with some principles of which we are not aware.  

We could assure him that it is haphazard, simply because the genius of al-Zamakhshari was still experimenting in order to perfect the new arrangement, a perfection which he actually reaches in his other work *al-Asas*. It is not at all without justification that this modern alphabetical arrangement should be called al-Zamakhshari’s arrangement. Indeed it was, when introduced, so modern that it has never in Arabic again been put to application till modern times; the tide of medieval Arabic lexicography went on favoring al-Jawhari’s arrangement mostly and al-Khalil’s occasionally.

But it was not only the arrangement of *al-Asas* that for many generations looked too revolutionary to be followed and hence remained unique. The whole of al-Zamakhshari’s conception of a dictionary seems to be so original and entirely different from the traditional conception (which still holds favour up to this day, in spite of occasional verbal vibrations against it!). It has been agreed, up from the time of Ibn Khaldun down to that of Haywood, including all the authorities in between that al-Zamakhshari’s *Asas* is different from all other Arabic lexicons in that:

1. It explains all the words used metaphorically by Arabic and what meanings are used metaphorically by them.
2. It comprises a very large collection of topical significations as well as otherwise.
3. It is based on the basic idea of distinguishing between original and figurative significations of words.
4. It is compiled with a special aim- to distinguish between the literal use of words and the metaphorical (*Haqiqah* and *Majaz*)

We find that al-Zamakhshari has introduced the following revolutionary features:

1. Al-Zamakhshari has applied a thoroughly inductive method in collecting his lexical data, resorting to the actual literature both spoken and written. This is an entirely different approach from the traditional attitude of merely relying on earlier lexicons, an attitude which is unfortunately current in Arabic lexicography since the death of al-Khalil down to our own days. Here, no doubt al-Zamakhshari is setting an example to any modern ambitious lexicographer.
2. He has taken great pains to stress the importance of explaining words in their context, not out and isolated, as it has been the habit of Arabic lexicographers before and after al-Zamakhshari down to the present moment. If the modern western linguists take pride in discovering the importance of what they call “the context of situation”, they ought to know that an Arab philologist, of Persian origin, has insisted on it somewhere about eight centuries ago. Although, he sounds annoyed by the terrible practice of his fellow philologists, he is too discreet to criticize them openly. By his insistence on considering the words in their context, he is again setting another example to the modern lexicographer.
3. He has broken with the myth (which still has a strong hold over Arabic lexicographers and philologists up till now) of strictly confining pure Arabic to certain space in time and place. In appreciation of this feature of al-Zamakhshari, Haywood says: “the author almost regards words as living organisms with lives of their own which were affected by the use made of them, especially by writers of genius. So he made a point of quoting late authors including those of his own time.”
4. Al-Zamakhshari has freed himself from the yoke of the stereotyped definitions of words, unlike the herds of Arabic lexicographers between al-Khalil and our own day.

It must now be clear, therefore, that the revolutionary lexicographical features planned and actually performed by al-Zamakhshari, regarding the collection of lexical data, their arrangement, presentation and definition, coincide with ideals the modern Arabic lexicographer should aspire to. In all, these features al-Zamakhshari has been almost unique. Only two features detract from al-Zamakhshari’s standing as the perfect model to the modern Arabic lexicographer.

He was too selective and ought to have been more comprehensive.

He did not have any notion at all of a comparative historical approach, although, it had been introduced by
Hebrew lexicographer in the Arab world.

His excuse for the first is his love for the literary language, because, in his opinion, it was only this type that contributes to the understanding of the Qur’an and traditions which was the final aim of linguistic studies. As for the second, al-Zamakhshari lacked any knowledge of any of the Semitic languages. Had he known one, we are sure, the comparative historical approach would have almost imposed itself upon him. But this advantage was only enjoyed by the Jewish scholars in the medieval Arab world and has been utilized only for the benefit of Hebrew.

Again, historians of Arabic lexicography tend to evaluate usually only al-Asas, and occasionally also al-Fa’iq, as the lexicographical works of al-Zamakhshari. We should not approach the question in this manner. Instead, we should try to evaluate al-Zamakhshari as a lexicographer wherever his lexicographical skills are shown. Thus, we should not confine ourselves to his direct lexical works, but include also his indirect contributions to Arabic lexicography, especially in a work like al-Kashshaf, where a great deal of al-Zamakhshari’s lexical originalities are obvious. Indeed we are convinced that al-Zamakhshari was quite conscious of the three basic source-materials for the traditional Arabic lexicons, namely the Qur’an, the Prophet’s traditions and the secular classical Arabic literature. He aimed at exhausting them all, but separately, not in one lexicon. Thus, he dealt with the vocabulary of al-Qur’an in his book al-Kashshaf, of the Prophet’s traditions in al-Fa’iq, and finally, of the secular classical literature in al-Asas. That is why he hardly makes direct quotations from the Qur’an or traditions in al-Asas. To provide the last element of a major lexicon, he compiled his geographical dictionary called al-Jibal wal-Miyah wal-Amkinah (the mountains, waters and places), a lexical work which Darwish does not mention at all, while Haywood just gives its name admitting that he had not taken any trouble to see it (although, it is available in print, Najaf, “Iraq 1357A.H.). This book is divided into alphabetical chapters, but within each chapter the material is listed at random; another indication that it has been written before al-Zamakhshari perfected his arrangement. We wish that someone would piece together all these lexical contributions of al-Zamakhshari in one lexicon. Such a work will be a big step towards realizing an Arabic ideal lexicon, on the one hand, and a better appreciation of al-zamakhshari as a lexicographer, in the other.

Lexicons compiled according to the modern alphabetical arrangement are coming out now in numbers from cultural capitals of the Arab world especially Cairo and Beirut.

Conclusion

When compare Arabic lexicon with what had been done by other peoples previously and what has been done since in Europe, we are bound to say that Arabic lexicon is a monument to thought and industry deserving the highest praise. And we could conclude in John A. Haywood’s words “only a people with a very high standard of culture and an extensive literature could require a Lisan and a Qamus and only truly outstanding scholars could provide them.” Without them, and the other dictionaries we have discussed, much Arabic literature would have remained imperfectly understood, even by the Arabs themselves. Without them, many facts concerning Islam would have been severely handicapped. One would think that the Arabs temperament was ideally suited to the work of lexicography.

REFERENCES

3. Ibid.
5. Ibid.
7. Ibid. p. 118
8. Ibid. p. 119
13. Ibn Khallikan, op. cit. p. 663
14. Ibid.
15. Haywood, op. cit. p. 13
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