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Abū Ḥayyān's Tuhfat al-'arīb: A Lexicographical Link Between Andalusia and the Eastern Islamic World

Abstract

This paper examines Abū Ḥayyān al-Andalusī's method of arrangement of entries in Tuhfat al-'arīb a concise lexicon of the Qur'an. Previous studies evaluating the method have noted that, unlike the established traditions of arranging entries either by the initial letter or by the rhyme system that organises words by their final letter (qāfiya system), Tuhfat al-'arīb employs both the first and final letters in its ordering. This method avails Tuhfat al-'arīb a unique position in the literature of gharīb al-Qur'an. Meanwhile, some have observed some perceived irregularities in the arrangement of entries by final letters, often attributing them to authorial oversight or scribal error. This study challenges that view, arguing that Abū Ḥayyān intentionally adopted two alphabetical systems, namely, the Mashriqī order for the first letters and the Maghribī order (popular among Andalusian and North African scholars) for the final letters. Reviewing existing scholarship on this topic in Arabic, English and Turkish while conducting a content analysis of Tuhfat al-'arīb, supported by graphical representations of its lexical patterns, the article demonstrates that this dual system is, far from an error, a deliberate methodological choice. In conclusion, the findings suggest that Abū Ḥayyān's synthesis of Maghribī and Mashriqī traditions may represent his own transregional scholarly identity, bridging Andalusia and Cairo. Thus, the Qur'anic lexicon, Tuhfat al-'arīb, may be regarded as a subtle intellectual unification of the Islamic East and West.

Keywords: Tafsīr, Arabic Lexicography, Tuhfat al-'arīb, Maghribī Alphabetical Order, Abū Ḥayyān al-Andalusī.



Ebū Ḥayyān'ın Tuhfetü'l-Erīb Adlı Eseri: Endülüs ve Doğu İslam Dünyası Arasında Sözlükbilimsel Bir Bağ

Öz

Bu çalışmada, Ebū Ḥayyān el-Endelüsī'nin garībü'l-Kur'an alanında telif ettiği Tuhfetü'l-erīb bi mâ fi'l-Kur'an mine'l-garīb adlı kısa ve özlü eserinde kullanılan madde diziliş yöntemi incelenmektedir. Daha önceki bazı araştırmalarda belirtildiği üzere, maddelerin kelimelerin ilk veya son harflerine (kafiye sistemine) göre düzenlendiği klasik sözlük geleneğinin aksine, Tuhfetü'l-erīb'de orta harf dikkate alınmadan sadece ilk ve son harfler esas alınmıştır. Tertibindeki bu özellik itibarıyla Tuhfetü'l-erīb, garībü'l-Kur'an literatürü arasında farklı bir yere sahiptir. Öte yandan kelimeleri sıralarken son harfe riayet konusunda her zaman titiz davranmadığı yönünde Ebū Ḥayyān'a çeşitli eleştiriler yöneltilmiştir. Birçok araştırmacı, maddelerin son harflere göre sıralanmasında görünen, daha doğrusu böyle bir intibaya yol açan düzensizlikleri uzun süredir tartışmakta; genelde bunu yazarın ihmeline ya da müstensih hatalarına bağlamaktadır. Bu çalışma ise Ebū Ḥayyān'ın, ilk harfler için ise Maşrik dizilişini, son harfler için ise Endülüs ve Kuzey Afrika âlimleri arasında yaygın olan Mağrib dizilişini bilinçli biçimde benimsediğini ileri sürerek bu görüşe karşı çıkmaktadır. Konuyla ilgili Türkçe, Arapça ve İngilizce literatürün incelenmesi, Tuhfetü'l-erīb'in muhteva analizinin yapılması ve

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bunun grafiksel gösterimleriyle desteklenmesi sonucunda eserde düzensizlik intibai oluşturan durumun bir hatadan ziyade bilinçli bir metodolojik tercih olduğu ortaya konmuştur. Sonuç olarak Ebû Hayyân'ın Mağrib ve Maşrik geleneklerini birleştirmesinin, Endülüs ile Kahire arasında köprü kuran âlim kimliğinin bir yansıması olduğunu söylemek mümkündür. Dolayısıyla tertibi itibariyle Tuhfetü'l-erfîb, İslam dünyasının doğu ve batısının incelikli bir sentezi olarak değerlendirilebilir.

Türkçe Geniş Öz makalenin sonunda yer almaktadır.

Anahtar Kelimeler: Tefsir, Arapça Sözlükbilimi, Tuhfetü'l-erfîb, Mağrib Alfabetik Dizilişi, Ebû Hayyân el-Endelüsî.



Introduction

The chronicles of medieval Andalusian scholars frequently feature their *rihla* eastward. While some returned to their homeland to continue their intellectual pursuits and disseminate their knowledge, others remained in the Eastern Islamic world. These movements exposed them to different cultures, methodologies, and legal schools, allowing them to synthesise these in their works. Ultimately, these scholars and their works often epitomise the connection between the Western and Eastern intellectual traditions.

Intellectual distinctions between the Western and Eastern Islamic worlds were apparent across various disciplines, albeit with varying degrees. In Arabic literature, for instance, the Andalusian poetry style, the *muwashshaḥat*, gained widespread recognition through the works of its scholars.¹ Another notable linguistic feature was Andalusian lexicography. Although Andalusian Arabic vocabulary may not have achieved prominence,² using the Andalusian alphabetic order (an alternative sequence in which some letters are positioned differently) in lexicons and encyclopaedias is quite observable. While integrating diverse linguistic elements may sometimes prove relatively straightforward, merging two distinct alphabetic systems within a single lexicon presents a far more intricate challenge. It is precisely at this juncture that the contribution of Abū Ḥayyān Athīr al-Dīn Muḥammad b. Yūsuf al-Gharnāṭī (d. 745/1344) assumes particular significance.

In the Arabic lexicographical tradition, the classification of dictionaries by the way they organise their material generally falls into three major systems: the phonetic-permutative, the common alphabetical, and the rhyme-based.³ Widely identified with Khalīl b. Aḥmad (d. 175/791), the phonetic-permutative method may be regarded as having reached its endpoint with Ibn Sīda's (d. 458/1066) *al-Muḥkam wa-l-muḥīṭ al-a'zam*.⁴ In contrast, the other two systems—alphabetical in character—continued to flourish. The rhyme (*qāfiya*) system orders entries by their final radicals, but alphabetically.⁵ Used in the likes of al-Jawharī's (d. 400/1010) *al-Şiḥāḥ*, entries are arranged such that the verb *dhahaba*, for instance, would be located under the chapter of *bā*.⁵ The proper alphabetical

¹ For information about the diffusion of Muwashshaḥat style to the Mashriq, see Dwight Reynolds, 'Music', *The Literature of Al-Andalus*, ed. María Rosa Menocal et al. (Cambridge University Press, 2000), 73–74.

² With the fall of Muslim Spain and the promulgation of the *Pragmática Sanción* in 1567 under Philip II of Spain, the Andalusian dialect of the Arabic language entered a period of demise. Its presence thereafter survived only in limited, specialised contexts, particularly in certain technical lexicons compiled by Andalusian scholars. For example, the botanical terminology in *Umdat al-ṭabīb fi ma'rifat al-nabāt* by Abū al-Khayr al-Ishbīlī (d. 5th/11th century) is reported to contain approximately 5% Andalusian Arabic. (Victor M. Barraso, 'Studies In Umdat Al-Tabib Fi-Marifat Al-Nabat ('The Pillar Book of the Physicians for the Knowledge of Plants') Among the Andalusian Agronomic And Botanical Treatises' [31st Congress of the Kansai Society for the Study of Arabic, Osaka, 2011], 21–22).

³ For more information about approaches to the arrangement of lexical entries in the Arabic lexicographical tradition; see John A Haywood, *Arabic Lexicography: Its History, and Its Place in the General History of Lexicography* (Leiden: E.J. Brill, 1960), 11–110; Ramzi Baalbaki, *The Arabic Lexicographical Tradition from the 2nd/8th to the 12th/18th Century* (Leiden: E.J. Brill, 2014), 279–401; Amidu Sanni, 'The Arabic Science of Lexicography: State of the Art', *Islamic Studies* 31/2 (1992), 141–168.

⁴ Baalbaki, *The Arabic Lexicographical Tradition*, 322.

⁵ Baalbaki, *The Arabic Lexicographical Tradition*, 363.

arrangement, on the other hand, outlasted the earlier systems and eventually emerged as the standard method of organisation. In this now conventional system, lexical entries are ordered according to the initial letter of their radicals—whether in their bare trilateral form or, less often, with full morphological augmentation.⁶ Thus, the verb *dhahaba* is classified under the chapter of the letter *dhāl*.⁷

In the literature of *gharīb al-Qur'ān*, both rhyme and the conventional orders have been employed alongside a third approach that arranges words based on their occurrence in the Qur'an.⁸ In this genre, Muḥammad b. Abī Bakr al-Rāzī's (d. after 666/1268) work exemplifies the preference for *qāfiya* method.⁹ Although al-Rāzī lived at a time when the rhyme-based system had largely fallen into disuse, his abridgement of al-Jawharī's *al-Ṣiḥāḥ* makes his retention of that system in his *Gharīb al-Qur'ān* work hardly surprising.¹⁰ On the other hand, within the *gharīb al-Qur'ān* genre, al-Rāghib al-Iṣfahānī (d. 5th/11th century) represents the conventional “first-to-last” arrangement, which orders entries from the initial to the final radical.¹¹

In Arabic lexicography, among those who adopted the alphabetical method are authors who sometimes employed the “two-thirds system,” in which entries are arranged according to only the first two radicals.¹² However, this approach is not attested in the *gharīb al-Qur'ān* tradition. Meanwhile, Abū Ḥayyān in his *Tuḥfat al-'arīb bimā fi l-Qur'ān min al-Gharīb*, adopts a distinctive variant of alphabetical ordering—one that takes into account both the first and the final radicals, with the middle radical playing no determinative role in the arrangement. This version of the two-thirds somewhat utilises the “old” and “new” methods concurrently, allowing him another intellectual dichotomy—the merger of the orderings in the lexicographical traditions of the West/Maghrib (Andalusia) and East/Mashriq of the Islamic worlds.

Abū Ḥayyān entitled his work *Tuḥfat al-'arīb bimā fi l-Qur'ān min al-Gharīb* (The Gift of the Sage on the Rare Words in the Qur'an). One may ask whether Abū Ḥayyān was subtly suggesting, by this title, that his compilation represented a hidden treasure, intended to be unearthed by the discerning and skilful reader. Nevertheless, scholarly attention has not been paid to his skilful arrangement until recently.

Given Abū Ḥayyān's eminent scholarly status, his lexicon did not remain unnoticed. Within a century of its composition, Zayn al-Dīn al-'Irāqī (806/1404) produced an *alfiyya* (thousand-line poem) from it.¹³ Qāsim b. Qutlūbughā al-Ḥanafī (879/1474) sought to “rearrange” its entries and paired it with another work of *gharīb al-Qur'ān* ascribed to Ibn Jamā'a (819/1416) or Muḥammad b. Abī Bakr b. Yūsuf al-Farghānī (date of death unknown).¹⁴

⁶ Baalbaki, *The Arabic Lexicographical Tradition*, 329–330.

⁷ Rāghib al-Iṣfahānī, *al-Mufradāt fi gharīb al-Qur'ān*, critical ed. Ṣafwān 'Adnān al-Dāwūdī (Damascus-Beirut: Dār al-Qalam-Dār al-Shāmiyya, 1412), 331–332.

⁸ See Abū Muḥammad 'Abdullāh b. Muslim Ibn Qutayba, *Tafsīr Gharīb al-Qur'ān*, critical ed. Sayyid Aḥmad Ṣaqr (Egypt: Dār al-Kutub-l-'Ilmiyya, 1978).

⁹ Ḥusayn Naṣṣār, *al-Mu'jam al-'arabī nash'atuhu wa-taṭawwuruhu* (Cairo: Dār Miṣr li-t-ṭibā'a, 1988), 1/38.

¹⁰ Baalbaki, *The Arabic Lexicographical Tradition*, 68.

¹¹ Naṣṣār, *al-Mu'jam al-'arabī*, 37.

¹² Baalbaki, *The Arabic Lexicographical Tradition*, 331.

¹³ See Zayn al-Dīn 'Abd al-Raḥīm b. al-Ḥusayn Irāqī, *Alfiyyat gharīb al-qur'ān al-karīm* (Akādīmiyyat iqrā' al-'ālamīyya li-l-dirāsāt al-Qur'āniyya, no date).

¹⁴ See al-Qāsim b. Qutlūbughā al-Miṣrī Ḥanafī, *Mu'jam gharīb al-Qur'ān*, critical ed. 'Abd al-Majīd Muḥammad al-Darwīsh (Damascus: Dār al-Nawādir, 2012). Although al-Qāsim al-Ḥanafī did not mention the names of either author whose works he merged, he did explicitly name the books. *Tuḥfat al-'arīb* is indisputably attributed to Abū Ḥayyān. As for the other work, *al-Bayān fi gharīb al-Qur'ān*, some scholars have attributed it to al-Farghānī, while others have ascribed it to Ibn Jamā'a. In the course of this research, it was found that al-Farghānī is indeed credited with a work titled *al-Bayān fi gharīb al-Qur'ān* [see Ismā'īl Bāshā, *Hadiyyat al-'arīfīn: asmā' al-mu'allifīn wa-āthār al-muṣannifīn* (Beirut: al-Tārīkh al-'Arabī – Dār lḥyā' al-Turāth al-'Arabī, 1951), 2/104.]. Regardless of the author's identity, the structure of the work

In the modern period, the first printed edition of *Tuḥfat al-'arīb* was published in 1926 (1345 AH).¹⁵ Nevertheless, despite the enduring interest in this concise Qur'ānic lexicon, the most unique aspect of the work remained largely unrecognised for centuries: that Abū Ḥayyān may have intended a deliberate scholarly gesture to bridge the lexicological traditions of the Islamic West and East.

In light of these considerations, this study situates Abū Ḥayyān's *Tuḥfat al-'arīb* within the landscape of Andalusian and Eastern lexicographical traditions. It will first examine the now-obsolete Andalusian/Maghrebian alphabetical order, then review the existing scholarship concerning the arrangement of entries in *Tuḥfat al-'arīb*. Finally, the study will address certain misconceptions regarding the structure of the work by critically appraising Abū Ḥayyān's methodological choices and exploring the possible motivations behind his effort to merge these two traditions.

A. The Andalusian/Maghrebian Alphabetic Order

The western sphere of the Islamic world, encompassing Andalusia and Northwestern Africa, historically employed a distinctive Arabic alphabetic order, a practice that influenced the organisation of dictionaries, encyclopaedias, and manuscript indexing. Although now largely obsolete, variations from the standard sequence appear both within the *abjad* (the traditional Semitic ordering) and the *alifbā'* (the more phonetically based modern ordering) of the Arabic script. While the Andalusian/Maghrebian *abjad* sequence is less commonly attested, it can be observed in certain works, such as the botanical encyclopaedia of the Andalusian geographer Sharīf al-Idrīsī (d. 560/1165), titled *al-Jāmi' li-ṣifāt al-ashjār wa-l-asmār wa-l-ḥashā'ish wa-ḍurūb anwā' al-mufradāt min al-nabāt*.¹⁶

Table 1: Colour-Coded Comparison Between the Popular Mashriqī and Archaic Maghribī Alphabetic Order

	Mashriqī	Maghribī
1.	ا	ا
2.	ب	ب
3.	ت	ت
4.	ث	ث
5.	ج	ج
6.	ح	ح
7.	خ	خ
8.	د	د
9.	ذ	ذ
10.	ر	ر
11.	ز	ز
12.	س	ط
13.	ش	ظ

follows the order of sūras, in contrast to Abū Ḥayyān's alphabetical arrangement. This choice is because Ibn Qutlūbughā aimed to provide a reference tool that helps the one who remembers a word but not where it appears, see al-Ḥanafī, *Gharīb al-Qur'ān*, 43.

¹⁵ Khadija al-Ḥadīthī, *Abū Ḥayyān al-naḥwī* (Baghdad: Maktabat al-Nahḍa, 1966), 161. In what appears to be a typographical error, Khadija al-Ḥadīthī misdated the Hijrī year 1345 AH as 1936 CE, whereas it corresponds to 1926 CE, the date that appears on the print of the work in question, see Muḥammad b. Yūsuf b. 'Alī b. Yūsuf b. Ḥayyān Abū Ḥayyān al-Andalusī, *Tuḥfat al-'arīb bimā fi l-Qur'ān min al-gharīb*, critical ed. Muḥammad Sa'īd b. Muṣṭafā al-Wardī (Hama: Maṭba'at al-Ikhlāṣ, 1926), 1.

¹⁶ Manuscripts of this work are preserved in the Süleymaniye Library, Istanbul, under shelf mark 03610, collection no. 241937, as well as in the Istanbul University Library, manuscript no. NEKAY01343.

14.	ص	ك
15.	ض	ل
16.	ط	م
17.	ظ	ن
18.	ع	ص
19.	غ	ض
20.	ف	ع
21.	ق	غ
22.	ك	ف
23.	ل	ق
24.	م	س
25.	ن	ش
26.	ه	ه
27.	و	و
28.	ي	ي

The Andalusian/Maghrebian *alifbā'* order, hereafter referred to as the Maghrebian or *Maghribī* alphabetical order, has been employed by numerous scholars as early as the fourth century A.H. Matājir Šūriyya observed that one of the earliest scholars to utilise this order for indexing was al-Ḥārith al-Khushanī (d. 361/971), in his *Akhhār al-fuqahā' wa-l-muḥaddithīn*.¹⁷ The order would later be seen, in full and partial usage, in the works of various biographers and lexicographers in the Islamic West. Among those identified are Abū al-Ḥasan al-Qābīsī (d. 403/1012),¹⁸ Ibn 'Abd al-Barr al-Namarī (d. 463/1071),¹⁹ Abū 'Ubayd al-Bakrī (d. 487/1094),²⁰ Qāḍī 'Iyāḍ (d. 544/1149),²¹ Abū al-Ḥayr al-Ishbīlī (d. 5th/11th century),²² Ibn al-Abbār al-Qudā'ī (d. 658/1260),²³ Ibn Juzayy al-Kalbī (d. 741/1340),²⁴ and notably, the subject of this study, Abū Ḥayyān al-Andalusī (d. 745/1344).

Despite the prominence of the Maghrebian alphabetical order in the works of Andalusian scholars, it would be erroneous to assume that all scholars of the Western Islamic tradition adopted this system. Some, perhaps to appeal to a larger audience, preferred the more widely used *Mashriqī* order. For instance, the Andalusian scholar Ibn al-Bayṭār (d. 646/1248) did not employ the Maghrebian order in his pharmacological lexicon, *Kitāb al-jāmi' li-mufradāt al-adwiya wa-l-aghdhīya*. Yet, while the Maghrebian alphabetical order may be considered obsolete today, it was still in use as late as the 20th century. The Moroccan scholar Muḥammad 'Abd al-Ḥayy al-Kattānī (1886-1962), for example, utilised it in his biographical dictionary, *Fihris al-fahāris wa-l-athbāt*.

By and large, the limited diffusion of the Maghrebian alphabetical order may have contributed

¹⁷ Šūriyya Matājir, 'al-Tartīb al-hijā'ī wa-kayfiyyāt isti'mālihi fi l-andalus mā bayna al-qarnayn al-thānī wa-l-rābi' al-hijriyyayn', *al-Ḥiwār al-mutawassitī* 14/1 (2013), 184.

¹⁸ *Kitāb al-mulakhaṣ li-musnad al-Muwaṭṭa'*.

¹⁹ *al-Tamhīd li-mā fi l-Muwaṭṭa' min al-ma'ānī wa-l-asānīd, al-Taqaṣṣī li-mā fi l-Muwaṭṭa' min ḥadīth al-nabī, al-Istī'āb fi ma'rifat al-aṣḥāb, al-Istiqnā' fi asmā' al-mashhūrīn min ḥamalāt al-'ilm bi-l-kunā, al-ibtihāl bimā fi shī'r Abī al-'Atāhiyya min al-ḥikam wa-al-amthāl*.

²⁰ *Mu'jam mā ista'jama min asmā' al-bilād wa-al-mawāḍi'*.

²¹ *Tartīb al-madārik wa-taqrīb al-masālik li-ma'rifat a'lām Madhhab Mālik, Mashāriq al-anwār 'alā ṣiḥāḥ al-āthār*.

²² *'Umdat al-ṭabīb li-ma'rifat an-nabāt*.

²³ *al-Mu'jam fi aṣḥāb al-Qāḍī al-Imām Abī 'Alī al-Ṣadafī, at-Takmila li-kitāb aṣ-ṣila, Dīwān*.

²⁴ *al-Tashīl li-'ulūm al-tanzīl (Muqaddima)*.

to the long-standing failure to recognise Abū Ḥayyān's synthetic method. Although *Tuḥfat al-'arīb* itself was known, its underlying methodological framework remained largely unexplored and was, in some cases, dismissed as lacking coherent structure. Thus, the present study turns to appraise the perspectives of scholars who have studied the work.

B. Overview of Studies on Abū Ḥayyān's *Tuḥfat al-Arib*

As early as the generation following Abū Ḥayyān, scholars began to engage with *Tuḥfat al-'arīb*, perhaps due in part to the author's scholarly prestige. For some, extracting or amending aspects of his work may have seemed intellectually fashionable—or even a mark of distinction. The first known figure to undertake such an engagement was Zayn al-Dīn al-'Irāqī, who composed an *alfiyya* based on *Tuḥfat al-'arīb*, offering modest additions and interpretive glosses to suit the requirements of *qāfiya*.²⁵ However, al-'Irāqī appears to have found the organisation of lexical entries in Abū Ḥayyān's work somewhat perplexing. He remarked: “*Jam'a Abī Ḥayyān wa-huwa rattabahu tartīb aḥruf al-hijā' wa-hadhdhabahu lakinnahu mā i'tabara al-thawāniyā wa-mā atā min al-ḥurūf tāliya*” (Abū Ḥayyān compiled and arranged it according to the order of the alphabet, and organised it, yet he did not take into account the second letters or those that followed them).²⁶ On this basis, al-'Irāqī decided to “rearrange” the lexical entries in his poem.

In the latter half of the 9th century AH, another scholar from the Mashriq milieu, Qāsim b. Qutlūbughā al-Ḥanafī devised a new approach to engaging with *Tuḥfat al-'arīb*. His objective was to produce a comprehensive lexicon of gharīb al-Qur'ān that would accommodate both alphabetical and *muṣḥafic* arrangements, thereby serving a broader range of users. To this end, he sought to merge the work of Abū Ḥayyān, who employed an alphabetical sequence, with another work that followed the *sūras* order. Like al-'Irāqī before him, Qāsim al-Ḥanafī might have thought that the sequence of entries in Abū Ḥayyān's lexicon was disordered and in need of a “rearrangement”. In an opening remark that appears in one of the published versions of the book, he said “*Lammā ra'aytu kitāba 'al-Tuḥfata fī gharībi l-Qur'āni' 'iqdan tanātharat duraruhu, 'aḥbabbtu 'an 'anzimahu fī aqrabi silkin, wa-huwa l-ḥarfū l-'awwalu, wa-th-thānī mina l-ḥurūfi l-'aṣliyya*” (Seeing the book *al-Tuḥfa (sic.) fī Gharīb al-Qur'ān* as a necklace whose pearls were scattered, I desired to arrange it in the closest thread: which is, the first and second root letters.)²⁷

In modern academia, *Tuḥfat al-'arīb* has been cited by a range of scholars, including those in Arabic lexicography, biographers of Abū Ḥayyān, and editors and researchers of the text itself. However, evaluations of the work's methodological ordering have been mixed. Notably, some have neglected to comment on the structure altogether. For instance, Muḥammad Sa'īd b. Muṣṭafā al-Wardī, who was the first to issue an edition of the book in Ḥamā in 1926, did not refer to the lexicon's ordering principles in his introduction.²⁸ Similarly, Aḥmad Sharqāwī Iqbāl's 1987 compendium of Arabic lexicons makes no mention of the methodological structure in its entry on *Tuḥfat al-'arīb*.²⁹

In this research, we have examined a range of academic sources in Arabic, Turkish, and English to assess how scholars have evaluated Abū Ḥayyān's methodological approach. It was discovered that while several studies have attempted to engage with the structure of *Tuḥfat al-'arīb*, their assessments often remain superficial. Many restrict their analysis to noting that Abū Ḥayyān combined the

²⁵ Irāqī, *Alfiyyat*, 1.

²⁶ Irāqī, *Alfiyyat*, 1.

²⁷ al-Qāsim b. Qutlūbughā al-Miṣrī Ḥanafī, *Mu'jam gharīb al-Qur'ān*, critical ed. 'Abd al-Mu'min Abū al-'Aynayn 'Alī Ḥufaysha (Beirut: Dār al-Kutub al-'Ilmiyya, 2012), 357.

²⁸ Muḥammad Sa'īd b. Muṣṭafā Wardī, 'Muqaddimat al-Shāriḥ', *Tuḥfat al-'arīb*, by Abū Ḥayyān al-Andalusī (Hama: Maṭba'at al-Ikhlāṣ, 1926), 2.

²⁹ Aḥmad Sharqāwī Iqbāl, *Mu'jam al-ma'ājim* (Beirut: Dār al-gharb al-Islāmī, 1993), 14.

Jawharian system, as used by al-Rāzī, with the first-to-last sequencing of al-Iṣfahānī.³⁰ Some only mentioned that he used the alphabetical system.³¹ In both cases, they tend to overlook a crucial detail: the alphabetic systems underlying these models are themselves distinct. Consequently, such works frequently conclude, rather generally, that the lexicon is organised based on both the initial and final radical letters.³² In studies that attempt to categorise Arabic lexicons by structural typology, *Tuḥfat al-'arīb* is often acknowledged as unique, being the only lexicon to integrate both ends of lexical entries into its organisational framework.³³

Nonetheless, some researchers have mistakenly concluded that Abū Ḥayyān did not consistently apply the final-letter ordering,³⁴ likely due to unfamiliarity with the Andalusian alphabetic sequence. Others, echoing al-'Irāqī's earlier remark, claim that the work relies solely on initial-letter ordering.³⁵ A further group of scholars viewed the arrangement as inherently disordered and needing correction. Among these are Dāwūd Sallūm and Nūrī Ḥammūdī al-Qaysī, who produced a revised edition under the title *Tartīb Tuḥfat al-'arīb*,³⁶ aiming to restructure the lexicon according to what they deemed a more coherent system.

Some researchers have been perplexed by the structural organisation of *Tuḥfat al-'arīb*, and their works reflect considerable intellectual effort in trying to make sense of it. However, none appears to have fully grasped the underlying principles at play. 'Abd al-Ḥamīd Ṭilib, carefully studied the arrangement and devoted a separate section of his study to analysing it.³⁷ After he observed that the author had structured the entries by both the first and last letters, he offered the following evaluation:

"We have often seen the arrangement of the last letter not adhered to. For example, with the letter hamza, we observed that it followed the method we presented up to the *gharīb* words that begin with hamza and end with *nūn* (a-s-n). Then, it mentions words that start with hamza and end with *fā'* or *qāf*, such as (a-q-f),³⁸ (a-z-f), then (a-b-q), before returning to its arrangement again."³⁹

³⁰ In the words of Ḥusayn Naṣṣār, "*wa-jama'a Abū Ḥayyān bayna tartīb al-Rāghib wa-al-Jawharī*." See Naṣṣār, *al-Mu'jam al-'arabī*, 41. See also Soner Gündüzöz, 'Arap Sözlük Bilimi ve Sözlük Çalışmaları', *İslam Medeniyetinde Dil İlimleri Tarih ve Problemler*, ed. İsmail Güler (Istanbul: ISAM, 2015), 36.

³¹ Mus'ā'id b. Sulaymān b. Nāṣir Ṭayyār, *Anwā' al-taṣnīf al-muta'allaqa bi tafsīr al-Qur'ān al-karīm* (Dammam: Dār Ibn al-Jawzī, 1423), 87; Mahmut Kafes, *Ebu Hayyan El-Endelüsi'nin Hayatı ve El-Bahru'l-Muhit Isimli Tefsirindeki Metodu* (Konya: Selçuk University, PhD Dissertation, 2018), 44; Mehmet Kaya, *Endülüs Tefsir Geleneğinde Eleştiri Bahru'l-Muhit Örneği* (Ankara: Fecr Yayınları, 2020), 148.

³² al-Ḥadīthī, *Abū Ḥayyān al-naḥwī*, 159; Naṣṣār, *al-Mu'jam al-'arabī*, 39; 'Abd ar-Raḥmān b. Muḥammad Ḥujaylī, *al-Ma'ājim al-mufahrasat li-alfāz al-qur'ān al-karīm* (Madina: Muḥamma' al-Malik Fahd li-Ṭibā'at al-Muṣḥaf al-Sharīf, 1421), 7/274; Mohammad Hassan Edrisi - Gholamhossein Sharifi, 'A Study of Arabic Lexicons, Their Compilation Methods, and Development', *Journal of Novel Applied Sciences* 4/2 (2015), 161.

³³ Edrisi - Sharifi, 'A Study of Arabic Lexicons, Their Compilation Methods, and Development', 161; Mehmet Demir, *Kur'ān'ın Anlaşılmasında Garību'l-Kur'ān'ın Yeri - (Kurtubī Tefsiri Örneği)* (Ankara: İlahiyât, 2021), 61; Baalbaki, *The Arabic Lexicographical Tradition*, 331.

³⁴ Aḥmad Maṭlūb, 'Taqdīm', *Tuḥfat al-'arīb*, by Abū Ḥayyān al-Andalusī (Beirut: Maktabat Lubnān Nāshirūn, 2001), 10; Samīr Ṭāhā Majzūb, 'Manhaj Abī Ḥayyān', *Tuḥfat al-'arīb*, by Abū Ḥayyān al-Andalusī (Beirut-Damascus: al-Maktab al-Islāmī, 1983), 35; 'Abd al-Ḥamīd Ṭilib, *Gharīb al-qur'ān: rijāluḥu wa-manāḥjuḥu min Ibn 'Abbās Ilā Abī Ḥayyān* (Kuwait: Wizārat al-Awqāf wa-l-Shu'ūn al-Islāmiyya, 1986), 373.

³⁵ Muḥammad Tūnjī, *al-Mu'jam al-mufaṣṣal fi tafsīr gharīb al-Qur'ān al-karīm* (Beirut: Dār al-Kutub al-'Ilmiyya, 2003), 12; Aḥmad b. 'Abd Allāh Bātīlī, *al-Ma'ājim al-lughawiyya wa-turuq tartībihā* (Riyadh: Dār al-Rāya, 1992), 30; Abdul-Wahab M Alghamdi, *Study of Gharīb in the Qur'ān Over a Period of Ten Centuries, From 213 To 1182 AH* (London: SOAS University of London, PhD Dissertation, 2019), 45.

³⁶ See Muḥammad b. Yūsuf b. 'Alī b. Yūsuf b. Ḥayyān Abū Ḥayyān al-Andalusī, *Tartīb tuḥfat al-'arīb bimā fi l-Qur'ān min al-gharīb*, critical ed. Dāwud Sallūm, Nūrī Ḥammūdī al-Qaysī (Beirut: 'Ālim al-Kutub, 1986).

³⁷ Ṭilib, *Gharīb al-qur'ān*, 473–488.

³⁸ This could be a typographical error, possibly referring to a different trilateral root, as a-q-f is neither found in Abū Ḥayyān's work nor the Qur'an. The intended reference might have been to a root such as a-f-f, which would make more sense within the context.

³⁹ Ṭilib, *Gharīb al-qur'ān*, 474.

By this, Ṭilib implies that if Abū Ḥayyān were strictly following an order based on both the first and last letters, then the entries should have appeared as follows: *a-z-f* and *a-q-f*, followed by *a-b-q*, and finally *a-s-n*, since the letter *nūn* comes after *fā'* and *qāf* in the standard alphabetical order. Ṭilib extends this critique to other sections of the lexicon—specifically those beginning with the letters *jīm*, *ḥā'*, *dāl*, *rā'*, and *sīn*—arguing that Abū Ḥayyān did not consistently apply the final-letter principle throughout the work.

After perceiving the inconsistencies in the ordering of entries, Ṭilib considered the possibility that such irregularities might not have originated with Abū Ḥayyān himself. Given the latter's reputation as a meticulous and prolific scholar, Ṭilib was reluctant to attribute the perceived "errors" to him directly. Instead, he proposed that the "inconsistencies" might have resulted from scribal mistakes during the transmission of the text. However, in attempting to substantiate this hypothesis, Ṭilib found that all the manuscripts he consulted displayed the same structural pattern.⁴⁰ This uniformity across multiple copies weakens the argument for copyist error.

At this juncture, it becomes necessary to question the copyist-error theory not only on the grounds of manuscript consistency but also because this perceived "disorder" was already noted by scholars within a generation and two after the author himself. As previously mentioned, both Ibn Qutlūbughā and al-ʿIrāqī commented on the haphazard arrangement of the lexicon. Hence, this suggests that what later scholars might have perceived as a copyist error was, in fact, a recognised feature of the work from the outset.

Meanwhile, when the first author of this article identified the underlying system embedded in Abū Ḥayyān's lexicon, he brought it to the attention of his advisee and a postgraduate candidate whose thesis committees he served on. These individuals have subsequently acknowledged this insight in the footnotes of their respective works,⁴¹ thereby offering early scholarly recognition of the method in question.

C. Demystifying Abū Ḥayyān's Method

Having established the originality of this discovery concerning Abū Ḥayyān's method, we will now attempt to articulate how this organisational system is constructed and how it compares to the methodological frameworks of other major works within the same genre. This will allow for a more precise situating of *Tuḥfat al-'arīb* within the *gharīb al-Qur'ān* literature and broader lexicographical tradition of the Islamic world and clarify its distinct contribution to the field.

1. Between the Modern Arrangement and the Jawharian Style

There is little need to reinvent what has already been established by earlier scholars regarding the classification methods in Qur'ānic lexicons. Rather, it is more useful here to illustrate these methods through representative examples drawn from the works of al-Isfahānī and al-Rāzī, in order to situate Abū Ḥayyān's approach in relation to them.

In al-Isfahānī's lexicon, which follows the conventional modern "1-2-3" alphabetical order, one finds that the entries *j-b-t* (جبت), *j-b-r* (جبر), and *j-b-l* (جبل) appear consecutively within the chapter of the letter *jīm*.⁴² This ordering is primarily determined by the second and third root letters, such that the entries are sequenced according to their final letters *-tā'*, *rā'*, and *lām*, respectively— with *tā'* preceding *rā'*, and *rā'* preceding *lām*.

⁴⁰ Ṭilib, *Gharīb al-qur'ān*, 474–475.

⁴¹ Abdullah Karaca, *Tefsirde Dilbilimsel Tahlil ve Tenkidin Özgün Bir Örneği: El-Baḥru'l-Muḥiṭ* (Ankara: Ankara Univeristy, PhD Dissertation, 2024), 274; Beyzanur Bozkurt, *Ebū Ḥayyān El-Endelüsî'nin Tefsir İlminin Sınırlarına Dair Görüşleri* (Kayseri: Erciyes University, Masters Thesis, 2024), 23.

⁴² Rāghib al-İşfahānī, *al-Mufradāt fī gharīb al-Qur'ān*, 182–186.

By contrast, in Abū Ḥayyān's *Tuḥfat al-'arīb*, although these same roots are located within the chapter of *jīm*, they are not positioned consecutively. The "1-3" sequence does not reflect the ordering of the middle radical. For instance, *j-b-t* appears between *j-w-b* and *j-th-th*; *j-b-r* is situated between *j-h-r* and *j-d-r*, both of which share the same final radical *rā'*, though the medial radicals follow no clear order. Similarly, *j-b-l* is positioned between *j-h-z* and *j-th-m*. This irregularity suggests that the medial radical was not used as a basis for internal sequencing.

In al-Rāzī's lexicon, the method follows the classical rhyme-based "3-1-2" style, where entries are organised according to their final radical. Thus, the trilateral roots *j-b-t*, *j-b-r*, and *j-b-l* are found not under the chapter of *jīm*, but under the chapters of *tā'*, *rā'*, and *lām*, respectively.⁴³

While Abū Ḥayyān's approach departs significantly from the macro-structural systems employed by both al-Isfahānī and al-Rāzī, it bears partial resemblance to the former in terms of arrangement of chapters; and to the latter's method in the way the final radical contributes to sub-ordering within chapters. As previously noted, this aspect of his methodology has not escaped the attention of modern scholars. However, what remains less clearly articulated in the academic literature is the subtle yet deliberate manner in which Abū Ḥayyān employed this methodological synthesis as a vehicle for merging the alphabetic order conventions of the *Mashriq* and *Maghrib*.

2. Between the Maghrib and the Mashriq Alphabet Order

In this section, we examine the structure of the lexical arrangement by focusing on the entries within the chapters of *ḥā'* and *hā'*. Specifically, we present a comparative analysis through two tables designed to illustrate the differing outcomes based on alternative alphabetic frameworks. The first table reflects the order that would result if the *Mashriqī* alphabetic sequence were applied consistently to both the initial and final radicals of the words, as per the expectation of Abū Ḥayyān's critics. The second table reconstructs the actual order found in *Tuḥfat al-'arīb*, which, as established in this study, is structured according to the *Mashriqī* order for the initial letter and the *Maghribī* order for the final letter.

To facilitate analysis, we draw upon a colour-coded reference chart (Table 1) that displays the Arabic letters in both the *Mashriqī* and *Maghribī* sequences. In the comparative tables, lexical entries are arranged from right to left, following Arabic script directionality. Each word is annotated with two sets of numbers: the figures placed above the entries in the *Mashriq*-based table reflect their hypothetical order under a purely *Mashriqī* schema. In contrast, the numbers below correspond to their actual positions in *Tuḥfat al-'arīb*, where the final radical follows the *Maghribī* alphabetic order.

Conversely, in Table 3, structured according to the *Tuḥfat al-'arīb* order, the numbering above each entry corresponds to the order in which the words appear in the book, while the numbers below indicate their theoretical positions had the *Mashriqī* alphabetic sequence been employed instead.

Table 2: Chapter of Ḥā' using Mashriq Alphabet Order for Final Letters⁴⁴

12.	11.	10.	9.	8.	7.	6.	5.	4.	3.	2.	1.
حجج	حدث	حثث	حرت	حرب	حقب	حزب	حدب	حصب	حوب	حسب	حمأ
12	11	10	9	8	7	6	5	4	3	2	1

⁴³ Muḥammad b. Abī Bakr b. 'Abd al-Qādir Rāzī, *Tafsīr gharīb al-qur'ān al-'aẓīm*, critical ed. Hüseyin Elmalı (Ankara: Diyanet İşleri Başkanlığı, 1997). See (*j-b-t*), 125; (*j-b-r*), 198; (*j-b-l*), 387.

⁴⁴ For an Arabic explanation of this table, see Mustafa Karagöz - Ifeoluwa Siddiq Oyelami, 'al-Ab'ād al-majhūla fī al-nizām alladhī ṭabbaqahu Abū Ḥayyān fī kitābihi *Tuḥfat al-'Arīb*', *Min al-balāgha ilā al-sharḥ wa-l-ta'wīl: juhūd al-qarn al-thāmin al-hijrī al-rābi' 'ashar al-milādī fī ta'şil al-dirāsāt al-lughawiyya al-'arabiyya fī al-'ahd al-Mamlūkī* (Istanbul: IRCICA, 2025), 296–297.

24.	23.	22.	21.	20.	19.	18.	17.	16.	15.	14.	13.
حفر	حور	حرر	حشر	حسر	حصر	حذ	حوذ	حرد	حدد	حفد	حوج
24	23	22	21	20	19	18	17	16	15	14	13
36.	35.	34.	33.	32.	31.	30.	29.	28.	27.	26.	25.
حطط	حبط	حيض	حرض	حصحص	حيص	حسس	حوز	حنجر	حظر	حبر	حجر
31	30	49	48	46	47	58	29	28	27	26	25
48.	47.	46.	45.	44.	43.	42.	41.	40.	39.	38.	37.
حلل	حنك	حك	حرق	حذق	حقق	حيق	حنف	حقف	حنف	حرف	حفظ
35	34	33	57	56	55	54	53	52	51	50	32
60.	59.	58.	57.	56.	55.	54.	53.	52.	51.	50.	49.
حيي	حفو	حصن	حنن	حسم	حطم	حكيم	حرم	حمم	حبل	حول	حمل
60	59	45	44	43	42	41	40	39	38	37	36
									63.	62.	61.
									حوي	حري	حمي
									63	62	61

In a work arranged according to both the first and last letters of lexical entries—based on the conventional *Mashriqī* alphabetical order—one would expect the entry “حوز”, ending with “ز”, to be followed by “حسس”, ending with “س”, since *sīn* comes after *zāy* in the standard alphabet. After, the sequence would logically continue with words ending in “ص” i.e. “حيص” and “حصحص”; then entries ending in “ض” i.e. “حرض” and “حيض”; followed by entries ending in “ط” i.e. “حبط” and “حطط”; then “حفظ”, ending in “ظ”; followed by those ending in “ف” i.e. “حرف”, “حقف”, “حنف”, and “حقف”; and then words ending in “ق”, i.e. “حيق”, “حقق”, “حذق”, and “حرق”. Next should come entries ending in “ك”, i.e. “حك” and “حنك”; followed by those ending in “ل”, i.e. “حلل”, “حمل”, “حول” and “حبل”. Then would follow words ending in “م”, i.e. “حمم”, “حرم”, “حكيم”, “حطم”, and “حسم”. Finally, the “ح” section would end with entries “حوي”, “حري”, “حمي”, “حيي”, “حفو”, “حصن”, “حنن”.

As observed in Table 3, however, the actual arrangement of entries in *Tuḥfat al-ʿarīb*—from “حبط” in the 30th position to “حسس” in the 58th—is markedly different from what one would expect in Table 2, which follows the *Mashriqī* alphabetical order.

Table 3: Chapter of Ḥā’ using Maghrib Alphabet Order for Final Letters (*Tuḥfat al-ʿarīb*'s order)⁴⁵

12.	11.	10.	9.	8.	7.	6.	5.	4.	3.	2.	1.
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⁴⁵ For an Arabic explanation of this table, see Karagöz - Oyelami, ‘al-Abʿād al-majhūla’, 297–298.

حما	حسب	حوب	حصب	حدب	حذب	حزب	حقب	حرب	حرت	حث	حدث	حجج
1	2	3	4	5	6	7	8	9	10	11	12	
13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	
حوج	حفد	حدد	حرد	حوذ	حذد	حصر	حسر	حشر	حور	حفر		
13	14	15	16	17	18	19	20	21	22	23	24	
25.	26.	27.	28.	29.	30.	31.	32.	33.	34.	35.	36.	
حجر	حبر	حظر	حنجر	حوز	حبط	حطط	حظظ	حيك	حنك	حمل		
25	26	27	28	29	36	37	38	46	47	48	49	
37.	38.	39.	40.	41.	42.	43.	44.	45.	46.	47.	48.	
حول	حبل	حمم	حرم	حكّم	حطم	حسم	حنن	حصن	حيص	حصحص	حرض	
50	51	52	53	54	55	56	57	58	31	32	33	
49.	50.	51.	52.	53.	54.	55.	56.	57.	58.	59.	60.	
حيض	حرف	حفف	حقف	حنف	حيق	حقق	حذق	حرق	حسس	حفو	حيي	
34	38	39	40	41	42	43	44	45	30	59	60	
61.	62.	63.										
حمى	حرى	حوي										
61	62	63										

It is seen that the order of the words in the *ḥā'* chapter of *Tuhfat al-'arīb* follows the sequence outlined in Table 3. As the table shows, after “حوز” in the 29th row, the expected next entry, “حسس” (which ends with س), does not appear. Instead, the order proceeds with “حبط” and “حطط”, which end with ط; followed by “حظظ” ending with ظ; then “حيك” and “حنك” ending with ك; then the entries “حليل”, “حمل”, and “حبل”, all ending with ل. These are followed by “حطم”, “حكم”, and “حرم”, all ending with م. These are followed by “حسم”, ending with م; then “حنن” and “حصن” ending with ن; then “حيص” and “حصحص” ending with ص; followed by “حرض” and “حيض” ending with ض; then “حقف”, “حفف”, and “حرف”, and “حنف” ending with ف; next are “حقق”, “حقيق”, “حذق”, and “حرق” ending with ق. Only after these entries does “حسس” appear, and the chapter concludes with “حوي”, “حري”, “حفو”, “حيي”, and “حمى”.

To further substantiate this point, let us examine the *hā'* chapter featuring 30 entries. In Table 4, which presents a hypothetical arrangement based on the *Mashriq* order, we observe that “همس”, ending with “س”, appears directly after “همز”, as expected, given that “ز” is the 11th letter and “س” the 12th in the *Mashriqī* alphabetical sequence. However, under the *Maghribī* arrangement, where “ط”

occupies the 12th position, it is “هبط” that appears after “همز”. In the actual *Tuḥfat al-ʿarīb*, which uses the *Maghribī* order for the last letters, “همس” appears much later, as the 25th entry, corresponding with the fact that “س” is the 24th letter in the *Maghribī* sequence.

Table 4: Chapter of “hā” Using Mashriq Alphabet Order for Final Letters

12.	11.	10.	9.	8.	7.	6.	5.	4.	3.	2.	1.
هشش	همس	همز	همر	هجر	هور	هود	همد	هجد	هدد	هزو	هيا
26	25	10	9	8	7	6	5	4	3	2	1
24.	23.	22.	21.	20.	19.	18.	17.	16.	15.	14.	13.
هيم	هضم	هشم	هيل	هزل	هلل	هلك	هلع	هطع	هرع	هجع	هبط
18	17	16	15	14	13	12	24	23	22	21	11
						30.	29.	28.	27.	26.	25.
						هيهي	هدي	هوي	هيو	همن	هون
						30	29	28	27	20	19

A similar discrepancy is observed in the entries ending with “ع”. As the 18th letter in the *Mashriqī* order but the 20th in the *Maghribī* sequence, entries ending with this letter tend to appear earlier in Table 4, the hypothetical *Mashriqī*-based arrangement (positions 14–17). In contrast, they are listed later, at positions 21–24, in Table 5, which reflects the actual order in *Tuḥfat al-ʿarīb*. Likewise, the entries ending with the gold-colour-coded letters “ك”, “ل”, “م” and “ن” show a reverse, appearing earlier in the *Maghribī*-based arrangement (positions 12–20) compared to their later placement in the *Mashriqī* order (positions 18–26).

Table 5: Chapter of “hā” Using Maghribī Alphabet Order for Final Letters (*Tuḥfat al-ʿarīb*'s order)

12.	11.	10.	9.	8.	7.	6.	5.	4.	3.	2.	1.
هلك	هبط	همز	همر	هجر	هور	هود	همد	هجد	هدد	هزو	هيا
18	13	10	9	8	7	6	5	4	3	2	1
24.	23.	22.	21.	20.	19.	18.	17.	16.	15.	14.	13.
هلع	هطع	هرع	هجع	همن	هون	هيم	هضم	هشم	هيل	هزل	هلل
17	16	15	14	26	25	24	23	22	21	20	19
						30.	29.	28.	27.	26.	25.
						هيهي	هدي	هوي	هيو	هشش	همس
						30	29	28	27	12	11

From the lens of the conventional alphabetical system (*Mashriqī* order), one might mistakenly conclude that the last letters of the lexical entries were not taken into account, leading to the perception of an “inconsistent” arrangement. However, when the same structure is reevaluated in light of the *Maghribī* order, as demonstrated in Tables 3 and 5, it becomes evident that the last letter is indeed considered, albeit according to the *Maghribī* sequence. Therefore, assessments suggesting that Abū Ḥayyān neglected the final letter in the ordering of entries do not reflect the reality; such conclusions evidently stem from an uncritical assumption of the *Mashriqī* order as the default.

Furthermore, the consistency and precision with which this ordering is applied across the chapters of the work render it implausible to dismiss the structure as a copyist's error or an oversight by Abū Ḥayyān. On the contrary, it must be seen as a deliberate and methodically considered decision by the author.

Meanwhile, Tables 3 and 5, which follow the ordering of the work itself, further confirm Abū Ḥayyān's distinctive “1-3” system rather than any form of “1-3-2”. In other words, the middle radical never enters into his organisational logic. Thus, cells 54–57 of Table 3 list “حقيق”, “حقق”, “حدق” and “حرق” in that sequence. Had the middle radicals been arranged according to any recognised alphabetical order—whether *Mashriqī* or *Maghribī*—the expected sequence would have been “حدق”, “حرق”, “حقيق” and then “حقيق”. Likewise, in Table 5, “هدي” (29) would normally precede “هوي” (28) under both alphabetical systems; however, the adopted “1-3” method produces the reverse order. This is, nevertheless, a logical method for a compiler who had envisaged employing two different alphabetical arrangements.

Conclusion

Many researchers have rightly drawn attention to Abū Ḥayyān al-Andalusī's methodological approach in *Tuhfat al-'arīb*, noting that he takes into consideration both the first and the last root letters in arranging his entries. In the *gharīb* al-Qur'ān tradition, al-Iṣfahānī exemplifies the conventional system of sequencing based on initial letters, while al-Rāzī adopts a rhyme-based model that starts with the final letters. Abū Ḥayyān, however, introduced a novel system within the genre and, indeed, within Arabic lexicography, based on the first and last letters, while apparently giving no weight to the middle radicals in the arrangement process. Thus, Abū Ḥayyān adopts what may be described as a “1-3” system, in contrast to al-Iṣfahānī's “1-2-3” arrangement and al-Rāzī's “3-1-2” model. Indeed, he stands as the first and only scholar known to have effected such a synthesis. However, scholars have been unable to determine precisely how and why he adopted this approach. This lack of clarity has given rise to the notion of “inconsistency” frequently attributed to the work. Some studies have suggested that in the sequencing of final letters Abū Ḥayyān either erred or failed to maintain uniformity. Even when some scholars attempted to exonerate him from the so-called “errors”, they resorted to the hypothesis of scribal mistakes, which is difficult to prove considering the similarity observable across multiple manuscripts. Consequently, the question of the arrangement of entries in *Tuhfat al-'arīb* has remained a long-standing puzzle.

This study has demonstrated that what has often been interpreted as disorder or error in the arrangement of entries is, in fact, the result of Abū Ḥayyān's deliberate choice to adopt the *Maghribī* order for final letters. We propose that this decision was not accidental but a meaningful expression, perhaps even symbolic, of his personal and intellectual trajectory. Raised in Andalusia, a central hub of the Western Islamic world, and later settled in Cairo, Abū Ḥayyān stood at the crossroads of the *Maghrib* and the *Mashriq*. His lexicographical method may thus be seen as a reflection of this East-

West synthesis, subtly unifying the two traditions within a single work. Like other Andalusian scholars who integrated intellectual experiences from their eastern voyages, Abū Ḥayyān seems to have enacted a synthesis within the lexicographical tradition. This approach is hardly surprising in the case of a scholar whose linguistic interests extended beyond Arabic to include Turkish and Amharic. It is only natural that he would integrate diverse traditions within the Arabic language itself.

To what, then, do we owe this gesture? Was it an attempt to preserve the *Maghribī* order for posterity? Or was it a romantic articulation of unity within the Islamic ummah across geographical boundaries? Moreover, why did he not indicate the method at the beginning of the work? These questions remain open and worthy of further inquiry. At the same time, the absence of a discernible pattern regarding the middle letters of entries raises further questions. Did Abū Ḥayyān disregard them entirely, or might he have employed a yet-undiscovered system for internal sequencing? The search for answers continues.



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1. Statement of Originality:

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2. Author Contributions:

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No GenAI tools were used at any stage of the study.

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BIBLIOGRAPHY

- Abū Ḥayyān al-Andalusī, Muḥammad b. Yūsuf b. 'Alī b. Yūsuf b. Ḥayyān. *Tartīb tuḥfat al-'arīb bimā fī l-Qur'ān min al-gharīb*. critical ed. Dāwud Sallūm, Nūrī Ḥammūdī al-Qaysī. Beirut: 'Ālim al-Kutub, 1986.
- Abū Ḥayyān al-Andalusī, Muḥammad b. Yūsuf b. 'Alī b. Yūsuf b. Ḥayyān. *Tuhfat al-'arīb bimā fī l-Qur'ān min al-gharīb*. critical ed. Muḥammad Sa'īd b. Muṣṭafā al-Wardī. Hama: Maṭba'at al-Ikhlās, 1926.
- Alghamdi, Abdul-Wahab M. *Study of Gharīb in the Qur'ān Over a Period of Ten Centuries, From 213 To 1182 AH*. London: SOAS University of London, PhD Dissertation, 2019. <https://soas-repository.worktribe.com/output/385757>
- Baalbaki, Ramzi. *The Arabic Lexicographical Tradition from the 2nd/8th to the 12th/18th Century*. Leiden: E.J. Brill, 2014.
- Barraso, Victor M. 'Studies In Umdat Al-Tabib Fi-Marifat Al-Nabat ('The Pillar Book of the Physicians for the Knowledge of Plants') Among the Andalusian Agronomic And Botanical Treatises'. 1–29. Osaka, 2011.
- Bātīlī, Aḥmad b. 'Abd Allāh. *al-Ma'ājim al-lughawiyya wa-ṭuruq tartībihā*. Riyadh: Dār al-Rāya, 1992.
- Bozkurt, Beyzanur. *Ebū Ḥayyān El-Endelūsī'nin Tefsir İlminin Sınırlarına Dair Görüşleri*. Kayseri: Erciyes University, Masters Thesis, 2024.
- Demir, Mehmet. *Kur'ân'ın Anlaşılmasında Garību'l-Kur'ân'ın Yeri - (Kurtubî Tefsiri Örneği)*. Ankara: İlahiyât, 2021.
- Edrisi, Mohammad Hassan - Sharifi, Gholamhossein. 'A Study of Arabic Lexicons, Their Compilation Methods, and Development'. *Journal of Novel Applied Sciences* 4/2 (2015), 157–162.
- Gündüzöz, Soner. 'Arap Sözlük Bilimi ve Sözlük Çalışmaları'. *İslam Medeniyetinde Dil İlimleri Tarih ve Problemler*. ed. İsmail Güler. 23–77. Istanbul: ISAM, 2015.
- Ḥadīthī, Khadija al-. *Abū Ḥayyān al-naḥwī*. Baghdad: Maktabat al-Nahḍa, 1966.
- Ḥanafī, al-Qāsim b. Qutlūbughā al-Miṣrī. *Mu'jam gharīb al-Qur'ān*. critical ed. 'Abd al-Majīd Muḥammad al-Darwīsh. Damascus: Dār al-Nawādir, 2012.
- Ḥanafī, al-Qāsim b. Qutlūbughā al-Miṣrī. *Mu'jam gharīb al-Qur'ān*. critical ed. 'Abd al-Mu'min Abū al-'Aynayn 'Alī Ḥufaysha. Beirut: Dār al-Kutub al-'Ilmiyya, 2012.
- Haywood, John A. *Arabic Lexicography: Its History, and Its Place in the General History of Lexicography*. Leiden: E.J. Brill, 1960.
- Ḥujaylī, 'Abd ar-Raḥmān b. Muḥammad. *al-Ma'ājim al-mufahrasat li-alfāz al-qur'ān al-karīm*. Madina: Mujamma' al-Malik Fahd li-Ṭibā'at al-Muṣḥaf al-Sharīf, 1421.
- Ibn Qutayba, Abū Muḥammad 'Abdullāh b. Muslim. *Tafsīr Gharīb al-Qur'ān*. critical ed. Sayyid Aḥmad Ṣaqr. Egypt: Dār al-Kutub-l-'Ilmiyya, 1978.
- Iqbāl, Aḥmad Sharqāwī. *Mu'jam al-ma'ājim*. Beirut: Dār al-gharb al-Islāmī, 2nd Ed., 1993.
- Irāqī, Zayn al-Dīn 'Abd al-Raḥīm b. al-Ḥusayn. *Alfiyyat gharīb al-qur'ān al-karīm*. Akādīmiyyat iqrā' al-'ālamīyya li-l-dirāsāt al-Qur'āniyya, no date.
- Ismā'il Bāshā. *Hadiyyat al-'ārifīn: asmā' al-mu'allifīn wa-āthār al-muṣannifīn*. Beirut: al-Tārīkh al-'Arabī

- Dār Ihyā' al-Turāth al-‘Arabī, 1951.
- Kafes, Mahmut. *Ebu Hayyan El-Endelüsi'nin Hayatı ve El-Bahru'l-Muhit Isimli Tefsirindeki Metodu*. Konya: Selçuk University, PhD Dissertation, 2018. <https://acikbilim.yok.gov.tr/handle/20.500.12812/450915>
- Karaca, Abdullah. *Tefsirde Dilbilimsel Tahlil ve Tenkidin Özgün Bir Örneği: El-Bahru'l-Muhit*. Ankara: Ankara Univeristy, PhD Dissertation, 2024. <https://dspace.ankara.edu.tr/handle/20.500.12575/92626>
- Karagöz, Mustafa - Oyelami, Ifeoluwa Siddiq. 'al-Ab'ād al-majhūla fī al-niẓām alladhī ṭabbaqahu Abū Ḥayyān fī kitābihi Tuḥfat al-'Arīb'. *Min al-balāgha ilā al-sharḥ wa-l-ta'wīl: juḥūd al-qarn al-thāmin al-hijrī al-rābi' 'ashar al-milādī fī ta'şil al-dirāsāt al-lughawiyya al-'arabiyya fī al-'ahd al-Mamlūkī*. 279–303. Istanbul: IRCICA, 2025.
- Kaya, Mehmet. *Endülüs Tefsir Geleneğinde Eleştiri Bahru'l-Muhit Örneği*. Ankara: Fecr Yayınarı, 2020.
- Majzūb, Samīr Ṭāhā. 'Manhaj Abī Ḥayyān'. *Tuḥfat al-'arīb*. by Abū Ḥayyān al-Andalusī. Beirut-Damascus: al-Maktab al-Islāmī, 1983.
- Matājir, Şūriyya. 'al-Tartīb al-hijā'ī wa-kayfiyyāt isti'mālihi fī l-andalus mā bayna al-qarnayn al-thānī wa-l-rābi' al-hijriyyayn'. *al-Ḥiwār al-mutawassiṭi* 14/1 (2013), 181–194.
- Maṭlūb, Aḥmad. 'Taqdīm'. *Tuḥfat al-'arīb*. by Abū Ḥayyān al-Andalusī. Beirut: Maktabat Lubnān Nāshirūn, 2001.
- Naşşār, Ḥusayn. *al-Mu'jam al-'arabī nash'atuhu wa-tatawwuruhu*. Cairo: Dār Mişr li-t-ṭibā'a, 1988.
- Rāghib al-Işfahānī. *al-Mufradāt fī gharīb al-Qur'ān*. critical ed. Şafwān 'Adnān al-Dāwūdī. Damascus-Beirut: Dār al-Qalam-Dār al-Shāmiyya, 1412.
- Rāzī, Muḥammad b. Abī Bakr b. 'Abd al-Qādir. *Tafsīr gharīb al-qur'ān al-'azīm*. critical ed. Hüseyin Elmalı. Ankara: Diyanet İşleri Başkanlığı, 1997.
- Reynolds, Dwight. 'Music'. *The Literature of Al-Andalus*. ed. María Rosa Menocal et al. 60–82. Cambridge University Press, 2000.
- Sanni, Amidu. 'The Arabic Science of Lexicography: State of the Art'. *Islamic Studies* 31/2 (1992), 141–168.
- Ṭayyār, Musā'id b. Sulaymān b. Nāşir. *Anwā' al-taşnīf al-muta'allaqa bi tafsīr al-Qur'ān al-karīm*. Dammam: Dār Ibn al-Jawzī, 1423.
- Ṭilib, 'Abd al-Ḥamīd. *Gharīb al-qur'ān: rijāluhu wa-manāhjuhum min Ibn 'Abbās Ilā Abī Ḥayyān*. Kuwait: Wizārat al-Awqāf wa-l-Shu'ūn al-Islāmiyya, 1986.
- Tūnjī, Muḥammad. *al-Mu'jam al-mufaşşal fī tafsīr gharīb al-Qur'ān al-karīm*. Beirut: Dār al-Kutub al-'İlmiyya, 2003.
- Wardī, Muḥammad Sa'id b. Muştafā. 'Muqaddimat al-Shāriḥ'. *Tuḥfat al-'arīb*. by Abū Ḥayyān al-Andalusī. Hama: Maṭba'at al-Ikhlāş, 1926.



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Ebû Hayyân'ın Tuhfetü'l-Erîb Adlı Eseri: Endülüs ve Doğu İslam Dünyası Arasında Sözlükbilimsel Bir Bağ

Geniş Öz

Arap sözlükbilim geleneğinde, lafızların düzenlenmesinde çeşitli yöntemler geliştirilmiştir. Alfabetik sıralamayı tercih eden müellifler, günlük kullanımda tercih edilen alfabenin yanı sıra Halîl b. Aḥmed'in (ö. 175/791) fonetik (mahreç) sistemine ya da nadiren de olsa sayısal değer atamalarında kullanılan *ebced* sistemine dayanan diziliş biçimlerini kullanmışlardır. Ayrıca kelimelerin ilk veya son harflerine göre düzenlenmesi sözlük müelliflerinin tercihlerinde görülmektedir. Garîbü'l-Kur'ân literatürü özelinde konuşmak gerekirse kelimelerin Mushaf sırasına göre düzenlendiği kitapların dışında alfabetik sistemin farklı biçimlerinin uygulandığı eserler de bulunmaktadır. Muhammed b. Ebû Bekir er-Râzî eserinde kelimelerin son kök harflerini dikkate almış, diğer bir deyişle kafiye sistemini tercih etmiştir. Lafızların kök harflerinin tamamını sırayla dikkate alan Râgîb el-İsfahânî yaygın olarak bilinen alfabetik sistemi kullanmıştır. Ebû Hayyân el-Endelüsî ise *Tuhfetü'l-erîb* adlı eserinde hem ilk harf hem de son harfe riayet ederek iki sistemi birleştirmiş, onun eseri bu yönüyle literatürde bilinen tek örnek olmuştur. "Eski" ve "yeni" yöntemleri bir arada kullanma biçimindeki bu yaklaşım, ona İslam dünyasının Maşrik ve Mağrib alfabetik sistemlerini birleştirme imkânını da sağlamıştır.

Alfabeedeki bazı harflerin sıralamasında, yaygın olarak bilinen ve kullanılan Maşrik dizilişinden farklı olan Mağrib dizilişinin kullanımı bugünkü bilgimize göre hicrî 4. yüzyıla kadar uzanmaktadır. Mağrib coğrafyasını oluşturan Endülüs ve Kuzey Batı Afrika âlimlerinin azımsanmayacak bir kısmının eserlerinde bu sistemin kullanıldığı görülmektedir. Günümüzde yazılan eserlerde Mağrib usulü alfabetik tertibe pek rastlanmamakla birlikte bu sistemin 20. yüzyıl sonlarına kadar kullanılmaya devam ettiği söylenebilir.

Mağribî dizilişe aşına olunmaması ya da bir sözlüğün iki farklı alfabetik sistemi aynı anda kullanabileceğine ihtimal verilmemesi nedeniyle birçok araştırmacı, Ebû Hayyân'ın *Tuhfetü'l-erîb*'teki lafızların tertibini karmaşık bulmuştur. Nitekim eseri manzum

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haline getiren Zeynüddin el-İrâkî, muhtemelen diziliş sistemini fark etmediği ve eserin tertibini karmaşık bulduğu için sıralamayı yeniden düzenlemiştir. Aynı şekilde *Tuhfetü'l-erîb*'deki maddelerin tamamen düzensiz olduğu düşüncesinin, Kasım el-Hanefî İbn Kutluboğa'yı eseri yeniden düzenlemeye sevk etmiş olduğu anlaşılmaktadır.

Modern dönemde klasik sözlükler, garîbü'l-Kur'ân literatürü veya Ebû Hayyân hakkında çalışma yapan araştırmacılar ve eserin neşrini yapan muhakkikler tarafından *Tuhfetü'l-erîb*'in tertibine ilişkin çeşitli tespitler yapılmış ve türlü iddialar öne sürülmüştür. Ancak bu görüşler eserin metodolojik yapısının genellikle yanlış anlaşıldığını veya yüzeysel ele alındığını göstermektedir. Sözgelimi Ebû Hayyân'ın alfabetik sistemi kullandığını belirtmekle ya da müellifin sıralamada hem ilk hem de son harfi dikkate aldığını dile getirmekle yetinip bunun ötesinde herhangi bir değerlendirme yapmayan araştırmacılar mevcuttur. Tertibin detayına dair bir bilgi ihtiva etmemesi, dolayısıyla da tertibe yönelik herhangi olumsuz bir değerlendirme içermemesi itibarıyla bu iki yaklaşım bir dereceye kadar doğru kabul edilebilir. Ancak kitabın tertibini tam olarak ortaya koymaktan uzak oldukları için eksiktir. Kimi araştırmacılar ise Ebû Hayyân'ın son harf sıralamasını standart bir biçimde uygulamadığını iddia ederken bazıları eserin yalnızca ilk harf esasına dayandığını ileri sürmüştür. Bir başka grup ise eseri tamamen düzensiz bulmuş olmalı ki yeniden yapılandırma cihetine yönelmiştir. Varsayılan hataları yazara atfetmek istemeyenlerse sorunun kaynağı olarak müstensihleri görmüşlerdir. Bununla birlikte birden fazla nüshada aynı durumun söz konusu olması ve bunun Ebû Hayyân'dan hemen bir asır sonra dahi fark edilmesi son teorinin yanlışlığını ortaya koymaktadır.

Çalışmamızda *Tuhfetü'l-erîb*'in kelimelerin dizilişinde hem ilk ve son harflerin dikkate alındığı hem de Maşrık ve Mağrib alfabetik dizilişlerinin sistemlerini birleştiren bir eser olduğu, teorik ve pratik düzlemde ortaya konulmuştur. Sözlük yazımındaki ilk ve son harf geleneğini bir araya getirme çabasının ardındaki olası motivasyon Maşrık ve Mağrib alfabetik geleneklerini birleştirmek olabilir. Kısaca ifade etmek gerekirse Ebû Hayyân, Maşrık ve Mağrib alfabetik sistemlerini lafızları ilk ve son harflerine göre tertip etme zemininde birleştirmiştir.

Makalede, *Tuhfetü'l-erîb*'in sistemi yansıttığını düşündüğümüz “ح” bölümünün yanı sıra rasgele seçilen “.” bölümündeki maddeler özelinde eserin sistemi incelenmiştir. Çalışmada, *Tuhfetü'l-erîb*'in sisteminin detaylarını göstermek amacıyla tablolardan yararlanılmıştır. Öncelikle Maşrık ve Mağrib dizilişlerindeki farklılıkların tezahür ettiği harflerin ayrı renklerle gösterildiği bir tabloya yer verilmiştir. Sonra “ح” ve “.” bölümleri çerçevesinde karşılaştırmalı ikişer tablo kullanılmıştır. Bu harflerden her birine ait ilk tablolar Maşrık, ikinci tablolar ise Mağrib usulüne göre hazırlanmıştır. İlâveten, ilk tablolarda lafızların üstünde yer alan satırdaki sayılar, varsayılan Maşrık dizilişine göre ortaya çıkan düzene; alttaki sayılar ise Mağrib usulüne göre ortaya çıkan tertibe, yani lafızların eserdeki gerçek konumuna işaret etmektedir. İkinci tablolardaki kelimelerin üstünde yer alan rakamlar Mağrib dizilişine göre lafızların sıralamasını, yani kitapta uygulanan tertibi, alttaki rakamlar ise Maşrık tarzının dikkate alındığı varsayıldığında ortaya çıkacak düzeni göstermektedir. Söz konusu ikinci tablolar Ebû Hayyân'ın *Tuhfetü'l-erîb*'de kelimeleri sıralarken aslında son harfleri de dikkate aldığını, fakat bunu Mağrib tarzı alfabetik sisteme göre yaptığını açıkça ortaya koymaktadır. Dolayısıyla onun son harfi ihmal ettiği yönündeki değerlendirmelerin gerçeği yansıtmadığı anlaşılmaktadır. Bu tür hatalı yorumlar Mağrib tarzı alfabetik sistemin varlığından haberdar olunmamasından veya müellifin son harf konusunda Mağrib usulü alfabetik dizilişi esas almış olma ihtimalinin göz ardı edilmesinden ya da eserin tertibinde Maşrık usulü alfabetik dizilişin kullanıldığı yönündeki ön yargıdan kaynaklanmaktadır.

Eserin tüm bölümlerinde aynı sıralama sisteminin tutarlı biçimde uygulanmış olması, bunun istinsah hatasıyla veya müellifin dikkatsizliğiyle açıklanamayacağını göstermektedir. Aksine bu durum, yazarın

metodolojik bir tercihte bulunduğuna ve bunu bilinçli olarak yaptığına işaret etmektedir. Sonuç olarak Ebû Hayyân'ın Mağrib ve Maşrik geleneklerini birleştirmesinin Endülüs ile Kahire arasında köprü kuran âlim kimliğinin bir yansıması olduğunu söylemek mümkündür. Dolayısıyla tertibi itibariyle *Tuhfetü'l-erîb*, İslam dünyasının doğu ve batısının incelikli bir sentezi olarak değerlendirilebilir.

Anahtar Kelimeler: Tefsir, Arapça Sözlükbilimi, Tuhfetü'l-erîb, Mağrib Alfabetik Dizilişi, Ebû Hayyân el-Endelüsî.



Hakem: Dış, Bağımsız.

Teşekkür:

-

Beyanname:

1. Özgünlük Beyanı:

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2. Yazar Katkıları:

Fikir: MK; **Kavramsallaştırma:** MK&ISO; **Literatür Taraması:** MK&ISO; **Veri Toplama:** MK&ISO; **Veri İşleme:** MK&ISO; **Analiz:** MK&ISO; **Yazma - orijinal taslak:** ISO; **Yazma - inceleme ve düzenleme:** MK&ISO.

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Etik Kurul İzni gerekmemektedir.

4. Finansman/Destek:

Bu çalışma, Erciyes Üniversitesi Bilimsel Araştırma Projeleri Birimi tarafından desteklenmiştir. Proje No: SBA-2024-13906

5. Çıkar Çatışması:

Yazarlar, herhangi bir çıkar çatışması olmadığını beyan etmektedirler.

6. Üretken Yapay Zeka Beyanı:

Çalışmanın hiçbir safhasında yapay zeka araçlarından faydalanılmamıştır.

7. Sürdürülebilir Kalkınma Amaçları:

