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#### **ARTICLE**

# Place and Archaeological Sites Names in the Ha'il Region: A Study of their Semiotics, Morphophonemic Structures, and Lexical Transformations

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#### **ABSTRACT**

The Ha'il region is located in the northwestern part of Saudi Arabia connecting the far northern and southern regions of the Kingdom. It boasts of its unique location, rich geographical structures, and archeological sites. Thus, the current study attempts to explore different geographical and archeological sites names in the Ha'il region through an in-depth analysis of their morphological and phonological structures and the transformation of their meanings and connotations. In other words, it is an exploratory study of the toponymic system of the Ha'il region. The study reveals how morphological structures of place names are varied, and how they have been changing their sounds, meanings, and connotations throughout ages. Moreover, it finds out that the lexicosemantic shifts and morphophonological diversity found in the toponymic system of the Ha'il region can be ascribed to a variety of synchronic and diachronic factors such as scribal inaccuracies, orthographic distortions, and poetic requirements existing in Arabic lexicographies and published literature. Furthermore, the topographical and geomorphological transformations have also contributed to the morphophonemic and semantic divergences of the place and archeological names under study. The scope of the current study is confined only to discussing

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and analyzing twenty-five place and archeological names in the region of Ha'il. As a theoretical framework, this research adopts historical and descriptive-analytical approaches as well as Peircean theory of semiotics to consolidate its thesis. *Keywords:* Lexis; Place Names; Archeological Sites; the Ha'il Region; Linguistics

#### 1. Introduction

The Ha'il region is located between the northern desert expanses and Najd plateau. Its location endows it with an ecological and strategic significance. It lies along the pilgrimage routes serving as a conduit between Hijaz, northern Levant, and the eastern Arabian interior. The existence of the fertile oases such as those in Jubba and the surrounding areas enabled early sustained human settlements. These oases served as focal points for pastoralism and agriculture promoting sedimentary and semi-nomadic lifestyles since the Neolithic period. The mountainous terrain of the region dominated by the rugged Aja and Salma ranges provides a natural fortification and protection making Ha'il an attractive and defensible settlement area throughout history.

Situated in the northwestern part of Saudi Arabia, Ha'il region occupies a significant position in the cultural and historical landscape of the Arabian Peninsula. Drawing on interdisciplinary research from historical linguistics, literary and cultural heritage, archeology, and geography, this study postulates that Ha'il region serves not only as a physical crossroads of migration routes and ancient trades but also as a reservoir of pre-Islamic and Islamic cultural memory. Being a region of many archeological sites such as Jubba, listed in the UNESCO World Heritage, and through an exploration of its toponymic heritage, this research underscores the critical role of the region as a living palimpsest of Arabian history. Ha'il is more than a region as it was and still a locus of transhistorical continuity where language, archeology, and geography provide evidence of artistic expression, sociocultural transformation, and human resilience. As a part of Saudi Arabia, it boasts of rich ancient Arabic heritage that provides it with various cultural and linguistic meanings [1].

The Ha'il region's toponymic heritage provides linguistic testimony to its deep-rooted cultural and social history. The various names of its places reflect a blend of nomadic naming conventions, Semitic linguistic origins, and Islamic and topographical influences. The rich toponymy of the region encodes information about natural features, socio-

cultural functions, and tribal affiliations. Thus, this study analyzes place names in the region, as well as the names of the archaeological sites, through a morphological analysis of word structures and an exploration of the transformation of certain meanings, connotations, and locations which have been changing over time. Moreover, it attempts to identify certain discrepancies between ancient place names mentioned in Arabic heritage and published literature and their modern geographical referents and cultural nuisances, along with the linguistic, historical, and geographical reasons behind these differences.

In the region, place names underwent morphological changes that often involved the simplification of complex lexical forms or the adaptation of classical Arabic roots to Ha'il local dialects. Such changes show linguistic evolution and reflect the necessity for easier pronunciation and memorization of such place names. In terms of their phonological features, many place names in the region have been simplified by means of sound shifts. Such shifts occur to consonant as well as vowel sounds. For example, certain emphatic consonants and glottal stops might be dropped entirely or softened in colloquial forms. Furthermore, diphthongs are leveled out and long vowels are shortened for ease of pronunciation which give the region its linguistic identity. This generally reveals a broader trend of phonological streamlining and a regional accent that influence the perception of place names, particularly in storytelling and oral traditions.

Moreover, semantic changes in the selected place names are analyzed in relation to their modified meaning, function, and cultural relevance in the light of Charles Sanders Peirce's theory of semiotics. Peirce is an American linguist, logician, scientist, and philosopher who developed the theory of semiotics in a way that it impacts the study of language as an arbitrary system of signs. Bertrand Russel<sup>[2]</sup> argues that Peirce is one of the original minds and the greatest thinker in America. He also considers him one of the paramount philosophers of the late nineteenth and early twentieth centuries whose rich contributions such as his theory of semiotics cover a wide array of areas ranging from

logic, mathematics, computer science, and physics to linguistics, ethics, psychology, and philosophy. Peirce's sign theory is foundational in linguistic, cultural, and anthropological studies<sup>[3]</sup>. His theoretical approach is based on triadic semiotics as he perceives that understanding of signs involves three distinct but interrelated processes or components; representamen, object, and interpretant which stands in contrast to Ferdinand de Saussure's dyadic model of semiotics that involves just two components; the signifier and signified. Peirce defines "a Sign as anything which is so determined by something else, called its Object, and so determines an effect upon a person, which effect I call its Interpretant, that the latter is thereby immediately determined by the former" [4] (p. 478). According to Peirce's model of semiotics, representamen is the sign itself which takes the form of a symbol, sound, image, or word; object is the actual concept or thing the sign represents, or what the sign refers to; and interpretant involves the creation of the meaning in the mind of the interpreter or the actor, and the effect or understanding the sign generates.

Peirce underlies the notion that meaning is not embedded or inherent in the sign alone but constantly created through an endless and dynamic process of interpretation which he calls semiosis, a meaning-creation process that is potentially infinite. For Peirce a sign is defined as something that stands for a concept or an object that means something to someone under some circumstances and in some respect. Therefore, a sign is not static but interactive and dynamic as it shapes its users and shaped by them. Houser and Kloesel<sup>[5]</sup> state that men and words are "reciprocally educate each other; each increase of a man's information involves and is involved by, a corresponding increase of a word's information" (p. 54). They argue that Peirce thinks that the human self is in a constant state of naming, renaming, sign-events, and sign action, "when we think then, we ourselves, as we are at that moment, appear as a sign" (p. 38). Therefore, meaning does not arise from the direct connection to external objects but from the system of different semiotics within language. This view underscores the relational and structuralist nature of meaning-making and social conventions that cherish linguistic systems side by side with cultural systems. Peirce's theory of semiotics is evident in the process of assigning and reassigning meanings and interpretations to the place names of the region of Ha'il. Some names of the region's natural places have been extended to refer to the people or the tribe that inhabited those places. Other place names which used to have negative connotations have been transformed into names that have an intimate relationship with the inhabitants of those places, and they have gained new cultural semiotics. In a latest published article, Alwaqaa [6] argues that there is a deep intimacy and strong connection between Saudi people and their landscape represented by the desert. Thus, to establish a solid connection between lexis, phontics, semantics, geography, and history is significant in the context of this research as it sheds a new light on the dialect, history, geography, and archeology of the Ha'il region of Saudi Arabia.

# 2. Research Questions

This piece of research attempts to answer the following questions.

- (1) Have the morphological structures of place names in the Ha'il region varied, and have their pronunciation, meanings, and connotations changed throughout ages?
- (2) What are the reasons behind the variation in the morphological structures of place names in the Ha'il region and the transformation of their pronunciation, meanings, and connotations?
- (3) What are the most important linguistic phenomena that led to the variation in the morphological structures of place names in the Ha'il region and the transformation of their pronunciation, meanings, and connotations?

# 3. The Scope of the Research

This study is limited to analyzing twenty-five place and archaeological sites names in the Ha'il region. These places are قَالِهُ ([Rakka], الحِجاز [al-Ḥijāz], على [Fayd], فَتْكُ [Buzākha] المريان [al-Rayyān], أجا [Aja] الريان [Salma], فِتْكُ [Fatak] وارن [Al-Ha'it], الحائط [Fatak] وفيك [Fadak], الحائط [Musṭaḥ], فدك [Balṭah], مسطح [Jaww] مشار [Mashar], مشار [Mashar], الرعيلة [Ghalghalah], مشان [Al-Ra'ilah] الرعيلة [Al-Ra'ilah] الرفاعي [Zawr], الرفاعي [Jubbah], أظايف [Jubbah], and [Jubbah], عبّة [Jubbah], and [Jubbah], عبّة [Jubbah], and

The purpose of this study is to examine the variation in the morphological structures of some place names in the

Ha'il region and the reasons behind this variation. Moreover, it investigates the phonological and semantic transformations that occurred in these names and the causes of such transformations. It also attempts to provide an explanation for the most important linguistic phenomena related to the diversity of place names structures and the change in their pronunciation and meanings. This examination is important as we try to find out whether this variation and transformation originate from classical Arabic roots or from other languages' roots. Furthermore, it sheds a new light on the geography and history of the region.

# 4. Data Collection and Research Methods

This study investigates only twenty-five place and archaeological sites names in the region of Ha'il. The reason behind selecting these names is that no study whatever has explored their semiotics, morphophonemic structures, and lexical transformations. In addition, these sites stand as prominent landmarks in the region because of their historical, cultural, and archeological significance. The names under study constitute the main data for discussing and analyzing this research, and this data has been obtained from the existing database, specifically Arabic dictionaries, lexicographies, poetry, and other published works.

This research follows different approaches in its discussion and analysis of place names in the Ha'il region. The first one is the historical approach to uncover the evolution and variation of certain place names throughout ages. The second method is the descriptive-analytical approach to analyze texts from a variety of sources including Arabic dictionaries and lexicographies, geographical sources, scholarly works, and poetic texts in order to clarify the morphological and lexical multiplicity of these place names, the shifts in their sounds and meanings, and the reasons behind these shifts. In addition to that, the research adopts Peirce's theory of semiotics as a conceptual framework. Peirce's theory is more appropriate in the context of this research as his model of semiotics is more influential than Saussure's because of his tripartite sign system. He divides the sign into three categories: icon, a sign which resembles its object like a map; index, a sign that has a physical or causal connection to its object like a footprint in sand or smoke indicating fire; and symbol, a sign whose attached meaning is learned, conventional, and cultural such as national flags and traffic lights. Peirce<sup>[7]</sup> states that all signs are partly iconic as they indicate through resembling their objects, indexical as they are actually influenced by their objects, and symbolic as they indicate by virtue of a law.

According to Houser & Kloesel, Peirce connects his theory of semiotics with the theory of metaphysics, a branch of philosophy, as the latter stands on three underlying categories or principles which he calls firstness, secondness, and thirdness. Firstness refers to the undifferentiated sensation or qualitative experience, "The First is that whose being is simply in itself, not referring to anything nor lying behind anything" (p. 248). Houser & Kloesel argue that Secondness entails the relation of the first to the second and involves association corresponding to the one between phenomena; the "Second is that which is what it is by force of something to which it is second" (p. 248). Thirdness necessitates the relation of the second to the third through mediated relations that involve three things at least; "the Third is that which is what it is owing to things between which it mediates and which it brings into relation to each other" (p. 248). As pillars of his metaphysics, firstness, secondness, and thirdness corresponds to Peirce's conceptualization of sensation, perception, and cognition respectively, and then to his concept of a sign. Peirce defines "A Sign or Representamen, is a First which stands in such genuine triadic, relation to a Second, called its Object, as to be capable of determining a Third, called it Interpretant, to assume the same triadic relation to its object in which it stands itself to the same Object" (pp. 272, 273). To illustrate this, consider the following example. To sense light in its normal wavelength through human's sight organ is firstness (sensation) in Peirce's metaphysic and semiotic scale. When the light wavelength exceeds its normal spectrum, and the subject or actor is able to differentiate between the normal wavelength and the ultra-one, then this one is called secondness (perception). In the firstness and the secondness levels, both forms of light remain just light, but in the thirdness relation the subject classifies them as colors and tokens or signs are used to distinguish one color from another as green and red. This token-denotation is thirdness (cognition). Paul Beynon-Davies [8] contends that a "sign is clearly triadic...the triad relates to the fundamental elements of his metaphysics. Peirce proposed that a sign

is a threefold relation, consisting of the representment, the object and the interpretant. The representment is the signifier, sign-vehicle or representation. The object is the signified or referent; that which is represented. The interpretant is the concept or meaning of the symbol formed through some process of interpretation" (p. 298). Thus, the sign does not exist in isolation, it rather operates only within the triad and through its accomplishment. In other words, the process of meaning-making, semiosis, is the result of interactions and interrelations among this tripartite system.

#### 5. Literature Review

Some place names in Ha'il region are explored from a geographical and spatial perspective with some literary insights through a research paper entitled Minṭaqat al-Jabalayn fī al-shi'r al-'Arabī al-qadīm [The Region of the Two Mountains in Classical Arabic Poetry] by Fahd Al-Bakr<sup>[9]</sup>. Badriyah Falah Al-Enezi<sup>[10]</sup> also examines a few place names in Ha'il local dialects from a linguistic perspective in her book, *Altṭwr allghwy fī allhjāt al-Maḥallīyah alḥā'lyyh* [Linguistic Development in the Local Dialects of Ha'il]. Furthermore, such place names are generally studied from a geographical perspective with a lexicographical focus in a dictionary entitled *Al-Mu'jam al-jughrāfī li-minṭaqat Hā'il* [Geographical Dictionary of Ha'il Region] authored by Waleed Abdullah Al-Māyiz<sup>[11]</sup>. The entries in this dictionary are arranged alphabetically in two volumes.

In an article entitled Zāhirat al-takhfīf fī alllahjh alḥā'lyyah al-mu'āsirah, Mu'jam Fasīh al'āmī fī Shamāl Najd li-'Abd al-Rahmān al-Suwaydā' unmūdhajan [The phenomenon of phonological lightening [takhfīf] in the contemporary Ha'ili dialect, lexicon 'Fasīḥ al-Āmmī in Northern Najd' by Abdulrahman Al-Suwaidā as a model], Fahad Muhammad Al-Moghlouth<sup>[12]</sup> investigates the fields of sociolinguistics and dialectology, combining linguistic aspects with social and anthropological ones. This study also focuses on certain phonological phenomena, particularly those involving simplification, such as the phenomenon of deletion and elision, which are considered ones of the most significant methods of phonological lightening in Ha'ili dialects. Moreover, the study reveals the presence of glottal stop, hamzah /?/, in Ha'ili dialects, where it may undergo one of three changes: lightening [takhfif], deletion, or substitution with a yā' /j/. These variations appear in Abdulrahman Al-Suwaidā's lexicon, Fasīḥ al-ʿĀmmī in Northern Najd.

Bushra Hamed Al-Khamsan Al-Shammari<sup>[13]</sup> studies expressions related to time in Ha'il dialect in a research paper titled Alfāz al-zaman fī al-lahjah al-Ḥā'ilīyah [Time Expressions in Ha'ili Dialect]. One of the findings is that Ha'il dialect inherited a number of phonological features from ancient Arabic dialects such as istinta, [changing the sound of tā' (ط) /t<sup>r</sup>/ into something nasal like /nt/], taḍji' [A change in articulation where a sound becomes laxer or the tongue lies flatter in the mouth, possibly altering the sound's quality], and lakhlakāniyyah [Looseness or slightness in articulation, specifically, it describes sounds that are produced with weak or loose contact between the articulators, like the tongue and the roof of the mouth]. Such features also include 'an 'anah [refers to a phonetic feature in which certain sounds are added or modified during the pronunciation of specific words. Specifically, it involves the addition of the "s" sound /s/ or the substitution of certain sounds in a distinctive way], ghamghamah [refers to the nasalized, unclear, or muffled speech that occurs when sounds are produced with indistinctness or vibration in the throat, often associated with lowered volume or unclear articulation], gat ah [refers to the cutting off or separation of sounds in speech, particularly how sounds or syllables can be disjointed or broken apart during pronunciation], and kaskasah [refers to a distinctive phonetic feature in Arabic, specifically a repetition of the /s/ sound or a soft, hissing sibilant sound produced by a hissing articulation of certain consonants]. These are phonological phenomena unique to the Arabic language in which sounds are added, deleted, or assimilated in the pronunciation of words, so that these words become strange and unfamiliar to the ears of classical Arabic listeners.

Among other valuable studies on modern Ha'ili dialects is an MA thesis entitled Allhjāt alḥā'lyyh al-mu'āṣirah fī Mu'jam Faṣīḥ al-'āmmī fī Shamāl Najd dirāsah ṣwtyyh ṣrfyyh m'jmyyh [Contemporary Ha'ili Dialects in the Lexicon 'Fasīḥ al-Āmmī in Northern Najd:' A Phonological, Morphological, and Lexical Study] in which Masha'il Hussein Al-Anazi [14] analyzes Ha'il roots found in Al-Suwaidā's lexicon from phonological, morphological, and lexical perspectives. In addition to his precious lexicon entitled Fasīḥ al-Āmmī in Northern Najd, Abdulrahman Al-Suwaidā' [15] authored a book entitled Al-Nak'hah alṭā'yyh fī allhjh alḥā'-

*lyyh* [The Taste of Dialect in Ha'ili Speech] which focuses on studying some Ha'ili dialects. The book presents a collection of linguistic roots from Ha'ili dialect along with explanations of their usage.

Despite the significant value of these studies which are considered important academic contributions on understanding the Ha'il region and its dialect with its syntactic, morphological, phonological, geographical, sociolinguistic, and anthropological features, the current study is unique in achieving objectives that have not been previously addressed or tackled by previous research. Thus, this study specifically focuses on the place names of the Ha'il region, their multiple meanings, and their lexical transformations. The researchers claim that this study is the first of its kind as no study has dealt with this topic before in the light of Peirce's theory of semiotics. This research contributes to the understanding of the toponymic patterns and the morphophonemic and semantic processes underlying the place and archaeological names in the Ha'il region of Saudi Arabia. Moreover, in comparison with the previous Arabic toponymic research which mainly focusses on linguistic or descriptive analyses of place names in such regions as al-Hijaz, Najd, Yemen, and the Levant, this research offers a new semiotic perspective on the toponymy of the Ha'il region. Unlike the genealogical or religious motivations and patterns often found in the toponymic system of some Saudi or Arab areas, the naming patterns in the Ha'il region shows a strong connection to tribal and cultural memory, topographical features, and historical events that have shaped the identity of the region. Hence, this research focus allows for a deeper understanding of how toponyms function as semiotic signs, indexing not only topographical and geographical places but also the historical and cultural consciousness unique to the Ha'il region.

#### 6. Discussion and Results

There are linguistic phenomena that have affected the place and archaeological sites names in the Ha'il region, leading to a variety of morphological structures and a transformation in lexical meanings and connotations. Among these is the phenomenon of idghām [assimilation] and its reversal process, doubling, evident in the place name  $\circlearrowleft$ , [Rakka] / 'rakka/ which comes from its root  $\circlearrowleft$  [Rakkuk] / 'rakkuk/[16]. The plural forms of this name are vari-

ous, including رُكَاكُ [Rakkāk] /rakˈkaːk/ and أركاك [Arkāk] /ʔarˈkaːk/[17] (p. 587). Al-Rāzī<sup>[18]</sup> explains that the verb [Rakka] means 'to become weak and soft,' and from this comes وَكَاكُةُ [Rakkah] /ˈrakka/ and رَكِيكُ [Rakāh] /raˈkaːkah/. He adds that people say, 'cut it from where it became weak, گُرُ [Rakka]' (p. 128).

Ibn Manẓūr<sup>[19]</sup> noted that غري [Rik] /rɪk/ refers to land that receives only a small amount of rain, and مركّكة [Markakkah] /marˈkakka/ or كيكة [Rkykah] /ruˈkajkah/ describes land that receives some إلا المالية [Rik], little rainwater and has only sparse grazing. Ibn Manẓūr argues that the word developed into various forms such as إلا [Rakka] and إلا [Rik] with slight variations in precise meaning, though the general meaning remained similar (p. 433). Al-Khalīl al-Farāhīdī [20] states that الربّك [Ar-rak] /arˈrakk/ means light rain, and الربّك [Sīl Al-rik] /si:l arˈrɪk/, is the weakest type of flood (p. 278).

Al-Jawharī specifically associated ك, [Rik] with weak rain, and the general meaning conveys a sense of weakness and scarcity (p. 587). Al-Jawharī records the verb نَّ [Rakka] under the root کے: [Zakek] /za 'kık/ (pp. 587, 588), but Al-Zabīdī<sup>[21]</sup> indicates that this is a scribal error, and the correct form in both prose and poetic meter is with /r/ instead of /z/ (177). Ibn Durayd<sup>[22]</sup> states that al-Asma<sup>\*</sup>ī claims that it is گُرّ [Rakku] / 'rakku/, and that Zuhayr's poem would not have worked metrically with 25 [Rakku], so he writes کُك [Rakkuk] / 'rakkuk/ instead (p. 1007). This is evident in the verse by Zuhayr ibn Abī Sulmā<sup>[23]</sup>, "Then they continued and said: your drinking water / is east of Salmā, Fayd, or Rakkuk" (p. 199). The poetic necessity in the verse leads to the reversal of assimilation, which is noted by Al-Qayrawānī<sup>[24]</sup> as he comments that when metrically required, the poet vocalized the sound /k/ and revealed its doubling (p. 202). The modifications of morphological and phonological structures of place names are common in Arabic poetry for rhyme and rhythm requirements as it is the case in the poetry of Abdullah al-Baradouni<sup>[25]</sup>.

Yāqūt al-Ḥamawī<sup>[26]</sup> also mentions that the words, زك [Rakka] and الرك (Al-rakk), refer to light rainfall, and it is a location among the places of Salmā, one of the two mountains of Tayy in the Ha'il region. Al-Aṣma'ā<sup>[27]</sup> narrates that he once asked a Bedouin, "Where is كك [Rakkuk]?" He replied, "I don't know, but there is a water source here called كل [Rakka]." So, it was necessary for Zuhayr to reverse the

assimilation." (p. 64). Ibn Jinni [28] contends that فيد [Fayd] ارك /faid/ and كار [Rakka] are two water sources in the nomadic area (p. 336). Al-Zamakhshari [29]; however, claims that زكك [rakkuk] is the name of a water source east of Salmā and Fayd in Zuhayr's line (p. 159). According to al-Jāsir<sup>[30]</sup>, the original  $\mathfrak{J}$ , [Rakka] is a place in Hā'il (p. 810). This is confirmed by Ibn al-A'rābī, who lived before the poet, Zuhayr ibn Abī Sulmā. He writes, "The weak على, [Rakka] has brought me / to you and seduced by it, I clung"[31] (p. 199). The كن [Rakka], here, refers to a scarce source of water located in Ha'il. From the discussion above, we conclude that the term ن [Rakka] is associated with weak flowing water, which clings lightly and trickles faintly. Thus, according to Peirce's semiotics, the name, J, [Rakka], can be categorized as indexical as little water denotes that the place is weak and dry because it receives scarce rain or water. The term specifically refers to a place in the Ha'il region, but the term comes in different morphological and phonological variations such as کُك [Rakkuk] which was used for metrical requirements.

Sometimes, the term, ڬ [rakka], can be applied to mean things other than its usual place reference like the word, al-Ḥijāz. In a verse by Labīd ibn Rabīʿah [32], this term does not refer to the well-known place of al-Ḥijāz.

A woman from the tribe of Murrah settled in Fayd,

And neighbored the people of al-Ḥijāz, Where then is the destination she longs for? At the sunrise of the two mountains, or in Ḥijar, She became surrounded by Fardah and Rukhām (p. 109).

Al-Zawzani [33] argues that زخام [Rukhām] /ruˈxaːm/ is a town in the land of Tayy, and some say it is near the way to al-Ḥijāz, the areas facing the rising sun. So, it is situated on the direction of al-Ḥijāz, another place not al-Ḥijāz that is commonly known (p. 241). Semantically, al-Ḥijāz means any geographical area which consists of big rocks and mountains that make a barrier between two flat lands. So, al-Ḥijāz is a good example of iconicity proposed by Peirce in his semiotic theory as the word resembles its object. Based on Peirce's semiotics, an icon is a sign that resembles its object, and this corresponds to his notion of firstness in his theory of metaphysics.

In the above lines, the word, 'neighboured' [jāwarat] /dʒa:warat/, is also narrated in another version as 'passed by' [jāwazat] /dʒa:wazat/, meaning 'to cross or leave,' which would influence the interpretation of al-Ḥijāz, whether it is the known region or something else. Abū Ja 'far rejects the latter version and opts with the alternative reading that the people of al-Ḥijāz here means the people of the mountains, Salma and Aja, because Fayd is near the mountains of Ṭayy in the Ha'il region. The food and water supply for the people of Fayd comes from the two mountains, and the distance between Fayd and the commonly known place of al-Ḥijāz is thirteen days' travel by camels. So, how could the poet have meant the actual Ḥijāz? [34] (p. 35).

What the poet truly means by 'the mountains' are Aja and Salma, not al-Ḥijāz. This is supported by the fact that he mentions 'the sunrise of the two mountains' or in 'Ḥijar.' Al-Zawzani explains that the poet means that the woman sometimes resided in Fayd and neighboured the people of al-Ḥijāz, that is, in spring and during the season of grazing and reproduction. Living in Fayd does not imply being close to the people of al-Ḥijāz, as the distance between them is vast and difficult to cross (p. 241). Ibn al-Anbārī<sup>[35]</sup> also asserts that all these locations are situated between Fayd and the two mountains, and not in the well-known al-Ḥijāz region. He argues that this is further confirmed by others. The eastern sides of the two mountains mean their eastern regions of the two mountains of Ṭayy in the Ha'il region (p. 135).

Al-Bakrī<sup>[36]</sup> specifies the location of Fayd, pronouncing it with a fatha (vowel /ae/) on the first sound /f/ and treats Fayd as feminine. He places it east of Salmā, which is one of the two mountains of Tayy. For this reason, Prophet Muhammad granted Fayd to Zayd, a brave knight from Bani Tamim tribe, when he became a Muslim as it was within his territory. Al-Bakrī explains that the first of Tayy mountains to appear on Kūfa route between Al-Ajfar and Fayd is the small mountain of 'Unayzah, all aligned in one extension (p. 33). Given the varying narrations, we adopt Abū Ja'far's argument of the meaning of al-Ḥijāz and Al-Bakrī's explanation of determining the location of Fayd as they are contextualized in Labīd ibn Rabī'ah's verse. The semiotics of Fayd can be assigned to the indexical and symbolic categories as it refers to a specific site in the region of Ha'il, but it takes on a symbolic meaning as Fayd means the war spoils taken by the victors. This semiotic analysis is supported by

the Prophet's decision to grant Fayd to Zayd as a booty.

Among the place names that underwent a change in in its morphological, phonological, and lexical structure is يَوْمُ يزَاخَةَ [Yawm Buzākha] /jawm bu ˈzaːxa/, The Day of Buzākha, which was the site of a battle led by Abū Bakr, the first Muslim Caliph, against the tribes of Asad and Ghatafān [37] (p. 445). It is also referred to as Buzākha as a shortened form, where another battle occurred fought by Khālid ibn al-Walīd against the renegades [38] (p. 456). In defining the location of Buzākha, Al-Asma'ī states that it was a water source which belonged to Tayy tribe in the land of Najd. Abū 'Amr al-Shaybānī thinks that it is a water source owned by Banū Asad, where a major battle took place during the time of Abū Bakr against Tulayha ibn Khuwaylid al-Asadī, who claimed prophethood after Prophet Muhammed's death. The tribes of Asad and Ghatafan gathered around Tulayha, strengthening his position. Abū Bakr then dispatched Khālid ibn al-Walīd, who sent ahead 'Ukkāsha ibn Mihsan al-Asadī, an ally of Anṣār, the Prophet's supporters. He encountered Ṭulayḥa at Buzākha, a water source of Banū Asad, where 'Ukkāsha was killed (Al-Ḥamawī, p. 408). As a sign, يَوْمُ بِزَاخَة [Yawm Buzākha] refers to a remarkable historical event (object), and the listener forms an image in his mind of victory and struggle (interpretant). Hence, this name is classified as index because it has a factual and direct relation with a real event that took place in Buzākha. It is also considered as symbol in cultural and literary contexts as it symbolizes courage, victory, struggle, and faith. On this occasion, the famous Arab poet, al-Nābigha al-Dhubyānī, writes.

They defended Wādī al-Qurā from their enemy With a multitude devastating to the adversaries And thirsty animals draw water from the plain with their tails

Before it quenches their throats,

In Buzākha surrounded by fronds, as if they were

Swift camels that got rid of their loads and dashed away<sup>[39]</sup> (pp. 154–172).

According to al-Jāsir<sup>[40]</sup>, there are two forms of the place name Buzākha, the first one is بزاخة [Buzākha] /buˈza-:xa/ and the second one is بزاخة [Buzūkha] /buˈzuːxa/, each indicating different meanings and possibly different places. The first refers to a water source of Tayy tribe in Najd; the second refers to a sand dune in the region of al-Dahnā, a

desert area, specifically in al-Asyāḥ, where waters for Banū Asad are found as stated by al-Shaybānī and al-Hamdanī (p. 191). What al-Aṣmaʿī previously mentions seems accurate. This is also emphasized by some researchers.

We tend to believe that Buzūkha or Buzākha located in the territory of Banū Asad is different from the one found in the land of Tayy. A piece of evidence supporting this argument is what the poet, Ibn Muqbil, states as he describes the former as being surrounded by sand dunes, a feature not found in Buzākha of Tayy. Ibn Muqbil used to live near Buzākha arguing that it lacks such dunes. However, in his lines he uses Buzākha to refer to the one situated in Banū Asad. He writes, "Flee from Buzākha, when it is enclosed by a dune / a dark, sharp-crested, barrier-like formation" (Al-Jāsir 1977, p. 204).

A similar variation in meaning and location occurs with the name الزيان [al-Rayyān] /ar-raj ˈjaːn/, a water source which belonged to Banū ʿĀmir. Labīd ibn Rabī ʿah al-ʿĀmirī states, "The torrents of al-Rayyān slopes have uncovered its inscriptions / though antique, such stone engravings are safe" (p. 107). Some argue that al-Rayyān is a mountain between the lands of Ṭayy and Asad. This is confirmed by the poet Zayd al-Khayl, who lived in the Ha'il region and was its prominent knight. He writes.

A rumor reached me, from one I wish not to mention

By it Yadhbul and Muwāsil are ripped, Al-Rayyān was before ashamed in disgrace, Now its high hills stand diminished (Al-Bakrī, p. 690).

Jarīr ibn Aṭiyyah also confirms this by affirming that Al-Rayyān was a part of the territory of Durayyah, which is the name of a mountain in Tayy. He writes:

How lovely is the mountain of al-Rayyān, what a mountain!

And how dear is the one who dwells in al-Rayyān!

How delightful the breezes that come from Yemenite,

that reach you from al-Rayyān, now and then [41] (p. 706).

According to Al-Māyiz, it was also said to be a great black mountain in Tayy, where fires were kindled and seen

from a three-night journey away. Streams would flow from it, and it is traversed by dales like Ghalghalah. Today it is known as al-Ru'aylah, the largest mountain in Aja range (p. 608). Exploring al-Rayyān's linguistic origin, it comes from the Arabic root, رئ [riyy] /rɪj/ meaning 'watering' or 'hydration.' Its original linguistic form was رويان, [Rwyān] /ru'wja:n/, and the letters, wāw [9], /w/ and yā [6], /j/ came together, but wāw was assimilated into yā forming Rayyān. Nashwān al-Ḥimyarī (1999) states that the original form of Rayyān came from the root with wāw, in the metrical pattern of فعلان [fa 'lān] /fasla:n/, and the feminine form would be فعلانة [fa'lānah] /fasla:nah/ (p. 706). Thus, the structural variation arose from the differing roots of the word. If we apply Peirce's semiotic theory on the name, al-Rayyān which is a great mountain, it is categorized as indexical as its root indicates irrigation and water. During the rain seasons the mountain is traversed by numerous streams that irrigate the valleys at its foot, creating the image of beauty, fullness, and bounty in the minds of its beholders which, also, renders it as a symbol in Peirce's semiotics.

Among the place names that underwent phonetic lightening is the word,  $|Ai\bar{a}|/2a'd3a:/$ , originally  $|Ai\bar{a}|^2$ /?a'dʒa:?/, which was lightened as a standard phonetic simplification, not a semantic one. This is common in Arabic, like أس,  $\frac{ra^2s}{ra^2s}$ , head, becoming اس,  $\frac{r\bar{a}s}{ra:s}$ , or فأس [fa's] /fa2s/, axe, becoming فاس [fās] /fa:s/. These are not cases of replacement-based lightening, but rather phonetic treatment, as glottal sound is often lightened in Arabic linguistic structures [42] (p. 474). The name, Ajā, appears shortened and without a hamzah (glottal stop), as in Labīd's description of the army of al-Nu'man, "Like the peaks of Salmā when they emerged or like / the summits of Ajā when wayfarers appeared upon it." [43] (p. 474). It also appears with its original hamzah, as in the verse by Zayd ibn Muhalhil al-Ṭā'ī. He writes, "They brought the horses from Ajā' and Salma, /galloping gracefully with the swift pace of riders." (p. 474).

The name is used both as feminine and masculine. It is declined for poetic necessity used with and without hamzah in shortened form. Ibn al-Anbārī argues that some Arabs shorten it and include hamzah, and others shorten it without hamzah<sup>[44]</sup> (p. 48). A supporting piece of evidence is from Imru' al-Qays' lines, "Ajā' refused to submit those who seek refuge/so let whoever dares, come forward to fight it"

(Ibn Sīda, p. 129). Ajā comes in the nominal pairings or collocations in place names in the Hā'il region as Aiā and Salmā. Linguists have offered explanations for this pairing. Al-Saghānī<sup>[45]</sup> notes that Arabs claim that Ajā' was originally the name of a man who was in love with Salmā, a woman. Al-'Awjā' was another woman who helped them meet secretly with each other. Aja and Salma belonged to two antagonistic tribes, and when the tribes knew that they were secretly dating each, they captured and crucified them on these mountains, thus Ajā', Salmā, and al-'Awjā are mountains named after these two lovers (p. 5). Hence, the names of these two mountains become symbols of true love, sacrifice, and endurance. The mountains also represent an essential part of the cultural heritage and legacy of the Ha'il region. According to Peirce's theory of semiotics, the designation of Ajā and Salmā operate as a powerful cultural symbol that impacts the minds of the interpreters who initially shaped their designations. They also function as indexical as they refer to real huge mountains surrounding Ha'il city.

Al-Qaṭīʿī [46] vocalizes Salmā and identifies its location stating that with a fatḥa /ae/, sukūn (pause), then mīm /m/, and a feminine ending, it is one of the two mountains of Tayy called Ajā and Salmā. It is a rugged mountain with a valley called, Rakk, which contains palm trees and wells lined with stone and clean water. At its top is a plain called al-Sarāʾ. It lies four miles from Fayd, on the right of the road to Mecca, and stretches nearly to the Levant (p. 729).

Another name with morphological, lexical, and phonological variations is, فَتُكُ [Fittik] /fitik/, with a kasrah /i/ on the fā' /f/. It's a place between Ajā and Salmā (Al-Zabīdī, p. 356). Al-Zabīdī mentions it as فَتْك [Fattak] /fætæk/ with a fatḥa /ae/ and sukūn, while al-Bakrī vocalizes it with a kasrah /i/. It is a place between Ajā and Salmā (p. 327). According to al-Jawharī, it has three forms: فَتُكُ [Fattak], [Fittik] (p. 602). This name فَتُكُ [Futtek] / fut:1k/, and فَتُكُ has been changing over time, even though the old and new names refer to the same location. One of its variations is also فدك [Fadak] / 'fadak/, a place now called al-Ḥāʾiṭ. However, al-Jawharī says that Fadak is the name of a village near Khaybar (p. 602). It lies in the vicinity of Khaybar, as both are extensions of former Jewish settlements. In defining its pronunciation and location, al-Bakrī states that with the first and second sounds pronounced with a fatha /ae/, it is a well-known place. It lies two days' journey from Khaybar. Its fortress is called al-Shamrūkh. Most of its inhabitants are from the tribe of Ashja. The nearest route from Madinah is through al-Naqrah, a day's journey over a mountain called al-Ḥibālah and al-Qadāl, then a mountain called Jabbār, then Yarbugh..." (p. 1016).

There are two locations named Fadak, one near Khaybar, which is the intended reference here, and another in al-Tā'if, as mentioned by Ibn Hisham [47] in his Sīrah [Prophetic Biography]. He states that when the Prophet was done with Khaybar, God cast terror into the hearts of the people of Fadak. When they heard about what God had done to the people of Khaybar, they sent emissaries to the Prophet to negotiate surrender on the basis of giving him half of Fadak. Their envoys arrived to him either in Khaybar or al-Tā'if (p. 353). He adds that Fadak is near Khaybar, and that it is a district of al-Hijāz, lying at the border between al-Hijāz and Harra, and northern Najd. Ibn Manzūr confirms this by stating that Fadak is a place in al-Ḥijāz. This is also revealed in the poetry of Zuhayr ibn Abī Sulmā, who places it among the lands of the Banū Asad tribe, "If you settle in Jaw' among Banū Asad, / in the religion of 'Amr, Fadak lies between us" (p. 473). Ibn Manzūr also mentions that Fadak is a village near Khaybar, and it lies within Hijāz. It has a spring and palm trees and was granted by God as fay, booty without battle, to Prophet Muhammad. Regarding its semiotic implications, Fadak with its morphological and phonological variations represents an indexical relation as the name refers to an existing site in the region of Ha'il.

توازن Tuwāran] /tu 'wa:ran/ and توازن [Tawāzan] /ta 'wa:zan/ are among place names in the Ha'il region with multiple morphological and phonological forms. It has also the same semiotic interpretation as it establishes an indexical relation denoting an existing place. The second form is a distorted version of the first. تُوارُنُ [*Tuwārun*] /tu 'wa:run/ is pronounced with damma /u/ on tā' /t/ and rā' /r/, ending with a n\u00fcn /n/. It is a village in Aj\u00e4 mountain, one of Tayy mountains. It can also be تُوارِنُ [Tuwārin] /tu ˈwaːrɪn/ with a kasrah /i/ on rā' /r/ (Al-Māyiz, p. 326). This distortion may be due to phonetic shifting, as noted by al-Hamawī. Its name variation, Tawazan, appears in the poetry of al-Tirmāh<sup>[48]</sup>, "Toward the roots of Artāh, shaded by a cloud, / Over the heights of Hayran or from Tawazan" (p. 276). By Tawazan he means Tuwaran, its popular name, and by Hayrān he means Habran, a mountain west of Hā'il (Al-

Māyiz, p. 326). However, al-Bakrī believes that Tawāzan and Hayrān were mountains in Yemen (p. 323).

A morphological and phonological change occurred due to metrical necessities in Yātib, which is a series of red mountains east of Ha'il between Aja and Salma. It is closer to Aja. The poet, Al-Zabīdī writes, "Oh God, when I try to delineate a portrait / For just a sip from the waters of Yatib's blessed pools." These lines are narrated by Abū Tammām [49] in his work, al-Wahshīyāt, the lesser Ḥamāsah, attributing them to Suwayd ibn Bujaylah al-Tay'ī. The lines read as follows, "Alas, as I try to compose a portrait / with a drink from the water of the pools of Ādib" (p. 201). Al-Qayrawānī also narrates it with another version, "Woe to my soul, when I try to delineate a portrait /with a drink from the pools of Ma'rib" (p. 229). Perhaps the variations in the name in different verses are due to meter and rhyme requirements. In terms of its semiotic interpretation based on Peirce's semiotic theory, this toponym is a sign that does not resemble its object, then it is not an icon. However, it is an index as it designates a real and material place. Even though the colour of these mountains, the object, is red, yet the designation or sign, Yātib, does not have any symbolic relation assigned to it by the interpreters or actors.

As for the terms مسطح [Musṭaḥ] /mustˤaħ/ and بلطة [Balṭah] /baltṣah/, there is a variation in their meaning. Amr al-Qays [50] writes, "I stayed with 'Amr ibn Darmah at a place called Baltah, /and how noble was the hospitality and how good the shelter" (p. 145). Al-Zamakhshari asseverates that Baltah is known in the mountains of Tayy, and some say it was the residence of Amr ibn Darmah (p. 57). Ibn Fāris [51] mentions that Baltah is a well-known plateau, and it is also said to mean a surprise. However, the former definition is considered accurate (p. 301). Al-Ṣaghānī states that it may mean passing or eternal time, suggesting that Baltah refers to a dwelling covered by slabs (p. 111). Thus, from a semiotic perspective, Baltah is interpreted as an icon if it denotes a dwelling covered by slaps as the sign (Baltah) partly resembles its object (slaps). Moreover, it stands as a symbol as people assign to it other metaphorical nuisances such as surprise and eternal time. Al-Azhari [52] adds that Baltah is a village in the mountains of Tayy, rich in figs and grapes. Some say it refers to time (p. 238). Nonetheless, it appears that Baltah refers to valleys with trees in the mountains of Tayy. Nowadays, it also has a spring that was not

mentioned in earlier lexicons. The topography of the place may have changed significantly with the passage of time. This is further supported by Amr al-Qays lines, "My camels graze between Jaww and Musṭaḥ, / Watching the young partridges walk the ground / Lo! Among the two dales lies a dale in Musṭaḥ, / And another lies for us deep in the heart of Balṭah" (p. 146). We find that Jaww is the name of valleys in the western part of Aja mountains, and Musṭaḥ, with a kasrah /i/ on mīm /m/, is the name of a location in Ṭayy mountains, or it might be a wide, flat slab of stone that is enclosed by rainwater. Like Balṭah, Musṭaḥ has an iconic relation as it resembles the object it refers to as both denote flatness. Balṭah, with dammah /u/ on bā' /b/, refers to places in Aja mountains where nests of partridges are found as Amr al-Qays mentions in his poem (Al-Māyiz, p. 1056).

Among other place names are مثار [Mashar] /mafar/ and غرمد [Tharmad] /θarmad/. The famous pre-Islamic poet, Hatim al-Ṭā'ī[53], writes, "To the valley from the highest of Mashar and Tharmad, /and Yaldata is the house of Mbanas of the daughter of Alghamri." Al-Zabīdī argues that Tharmad is a vale in the mountain of Ta'i which belonged to the sons of Thalaba from Banu Salama from Ta'i (pp. 465–467). Alqama states that Tharmad has multiple morphological forms as it is evident in the following lines, "You mention her as one from Rabī'ah / For her a heart is carved out of Tharmadā." Ibn Manzūr contends that Tharmad and غرمداء [Tharmadā] /θarma:da:/ are both locations in the highest Mashar, east of Aja Mountains. They have dales, mountains, water, and many palm trees such as Zour, Al-Bazkha, Al-Sibahi, Sibah, Al-Rifa'i, and others (p. 103).

The two forms مشار [Mashar] and مشار [Mashan] /maʃan/ are two names which refer to the same location as al-Bakrī points out that this location is a black mountain or a valley near Aja. This morphological and phonological variation can be attributed to scribal errors and phonetic substitution where sound /r/ replaces /n/ or vice versa as both sounds have the same place of articulation. Al-Ṣaghānī writes, "Surrounded by Snām and to its right / In the north Mashan and Al'zāmyl" (p. 103). In another narration, Al'zāmyl is referred to as Al-Ghramil, and Mashan might mean fresh dates. He mentions that Mashan, with kasra /i/ on 'm' and Mushan with o sound /u/ refer to fresh dates (p. 315). Some researchers argue that Mashar is not the same as Mashan, since Mashan is connected in the previous lines with the mountain

of Sanam in al-Hanafah (Al-Māyiz, p. 1058). Semantically speaking, Mashar and Tharmad are categorized as indexical as the former refers to a mountain and the latter denotes a small valley.

Other place names that have different morphological and phonological forms are حُتَّة [Jubbah] مَرَّعل إلْكُتَّة (Jubbah] مُتَّة [Al-Jubbah] /ald عنة [Khabah] /xabah/, which are places located north of Ha'il (Al-Bakrī, p. 486). Lexicographers state that these place names refer to an unspecific location. Notwithstanding, Ibn Sīdah<sup>[54]</sup> says that Jubbah and Al-Jubbah are definitively names of a specific location (p. 226). The poet, al-Nimr bin Tulayb Al-Aqlī<sup>[55]</sup> (1969), writes, "Ousted by the multitudes of enemy / Ajā' and Jubbah became their settlement" (p. 348). In another version, Ibn Sīdah writes, "Ousted by the multitudes of enemy / Ajā' and Khabah became their settlement" (p. 418). This might be due to a transcription or scribal error. Ibn al-A'rabi recites, "There is no considerable possession except the camels of Juma'ah / Their drinking water is from Al-Jubbah or Nu'ā'ah" (p. 2000). This variation might be attributed to scribal errors because of many different narrations. However, in Arabic lexicographies حَوْنَة [Jawbah] /d͡ʒawbah/ means hollow or depression in a land where water gathers and forms a contemporary water basin. It seems that due to vowel reduction, Jawbah was shortened to Jubbah, particularly as the geographical features of Jubbah match this description. Thus, Jubbah functions as an icon and index as the name is associated with the natural characteristics of the place, and it indicates a famous historical and archaeological site in the Ha'il region.

Among the varied lexical, morphological, and phonological forms are the place names of idlie [Aza'if] | Saza?if| and idlie [Zayif] | Zajif|. Al-Zamakhshari, as most lexicographers, argue that these place name variations do not refer to any specific place (p. 217). They come in two metrical patterns, idlied [Af'al] | PafSal| and idlied [Fa'il] | Idlied | Ifa'il|. However, in an elegy, Mutammim Ibn Nuwayrah mourns his brother who was killed in a battle, "A northern wind arose from Aza'if's domain, | When it met the open plains, it tore through with rising dust" (Ibn Sīdah, p. 20). In this case, it seems that one of the reasons for the multiple morphological and phonological forms of place names is the phenomenon of simplification, where the second form is a simplified version of the first. From a semiotic perspective, Aza'if refers to a

place or a land formation with thin layers of sand that may cause a dust storm when the wind fiercely blows. Hence, this hyponym can be classified as indexical as well as symbolic according to Peirce's categorization of signs.

From the above discussion, it becomes evident that the place names in the Ha'il region underwent lexical and semantic transformations due to poetic necessities, scribal errors,

and topographical changes. Furthermore, human beings are capable to impose new meanings, structures, and names on their environment as much as their environment impacts their lifestyles and linguistic creativity <sup>[56]</sup>. The following **Table 1** illustrates the morphophonemic variants, semiotic categorization, and referent source of a representative sample of the discussed hyponyms in the Ha'il region.

Table 1. Morphophonemic Variants and Semiotic Classification of the Ha'il Region Hyponyms.

Hyponyms	Morphophonemic Variants	Semiotic Classification			Referent Source		
		Icon	Index	Symbol	Geography	Hydro	Tribal
Rakka	[Rakkuk] / 'rakkuk/,[Rakkāk] /rak 'kaːk/, [Arkāk] /?ar 'kaːk/, [Rakkah] / 'rakka/, [Rakākah] /ra 'kaːkah/, [Markakkah] /mar 'kakka/, [Rkykah] /ru 'kajkah/, [Zakek] /za 'kɪk/, [Rakku] / 'rakku/, and [Rakkuk] / 'rakkuk/		<b>√</b>		V	<b>√</b>	
al-Ḥijāz	[al-Ḥijāz] /al-ḥi d͡ʒaːz/	$\checkmark$			$\checkmark$		
Fayd	[Fayd] /fajd/		√	√	√		
Yawm Buzākha	[Yawm Buzākha] /jawm buˈzaːxa/, [Buzākha] /buˈzaːxa/, and [Buzūkha] /buˈzuːxa/		√	<b>V</b>	<b>V</b>		
al-Rayyān	[al-Rayyān] /ar-raj 'ja:n/ and [Rwyān] /ru 'wja:n/		√	√	√	√	
Ajā	[Ajā] /?aˈdʒaː/, and [Ajāʾ] /?aˈdʒaː?/		√	<b>√</b>	√	√	<b>√</b>
Salmā	[Salmā] /ˈsalmaː/		√	√	√	√	√
Fadak	[Fadak] /ˈfadak/, [Fittik] /fittk/, [Fattak] /fætæk/, and [Futtek] /ˈfutːɪk/		√		V		
Tuwāran	[Tuwāran] /tuˈwaːran/, [Tawāzan] /taˈwaːzan/, [Tuwārun] /tuˈwaːrun/, and [Tuwārin] /tuˈwaːrɪn/		√		V		
Musṭaḥ	[Musṭaḥ] /mustˤaħ/	√	√		√		
Balṭah	[Balṭah] /baltˤah/	√	V		√		
Mashar	[Mashar] /maʃar/ and [Mashan] /maʃan/		V		$\sqrt{}$		
Tharmad	[Tharmad] /θarmad/ and [Tharmadā] /θarma:da:/		V		√		
Jubbah	[Jubbah] /d͡ʒubbah/, [Al-Jubbah] /ald͡ʒubbah/, and [Khabah] /xabah/	<b>V</b>	<b>V</b>		V	V	
Aza'if	[Aza'if]  Saza?if , and [Zayif]  zajif		<b>V</b>	√	√		
		4	13	6	15	5	2

## 7. Conclusions

The morphophonological diversity and the lexicosemantic shifts observed in the toponymic system of Ḥāʾil region can be attributed to a range of diachronic and synchronic linguistic factors, as identified by the current study. Among the primary factors are orthographic distortions and scribal inaccuracies encountered in classical and modern Arabic lexicographic sources. Due to the reason that the place names of the Haʾil region have intertextually been transmitted across various successive lexicographies, this has facilitated the propagation and perpetuation of altered

forms of these place names, revealing an endless process of etymological drift. In addition to that, the topographical and geomorphological transformations throughout ages have contributed to changing semiotics and semantic divergence and diversity, whereby the denotative meaning of particular toponyms are no longer aligned with the environmental or the geographical referents they originally denoted. Besides the transformations in etymology and morphology of the place names, there are systematic phonetic deviations caused by temporal phonological erosion which results in new phonetic forms that differ significantly from their diachronic antecedents.

Being analyzed from a morphophonemic perspective, the place names of the Ha'il region underwent simplification processes wherein markedly complex forms go through reduction to produce less morphologically subtle variants. This is central to understanding structural variations of the discussed place names. The toponymic system of the Ha'il region also demonstrates dual manifestations or phenomena of multiple referentiality: polyonomy where the same locale or place known by numerous toponyms, and polyreferentiality in cases where more than one place shares a single toponym. Furthermore, the phenomenon of homonymy is evident in the toponymy of the Ha'il region when isophonous lexemes bear divergent semantic values. A conspicuous semiotic disjunction is also observable between the empirical geographical reality and poetic representations where exegetical toponymic interpretations in classical Arabic poetry have generated a variety of readings and semantic ambiguity. Toponymic variation is further intensified by discrepancies among historiographic, cartographic, and literary sources which have precipitated both morphological restructuring and lexical innovation. In some cases, these variations are rooted in divergent proto-linguistic roots or distinct etymological derivations.

Several phonological processes have been instrumental in these transformations, including prosodic constraints such as poetic license, articulatory simplification of glottal stops such as hamzah /2/, assimilation and dissimilation, as well as vowel quantity alternation, apocope and syncope. The heterogeneity of the regional topography has also had a formative role in lexification patterns and morphological diversification. Based on Peirce's theory of semiotics, onomastic convergence, the associative naming of places and sites based on historically or culturally resonant nominal templates or patterns, plays a significant and constitutive role in the evolution and genesis of place names in the Ha'il region. In other words, the naming conventions shows a strong connection to cultural memory, topographical features, and historical events that have shaped the identity of the region. Based on the representative sample presented in the table above, the toponyms in the Ha'il region fall into three sign categories: index (13), symbol (6), and icon (4); and into three referent sources: geography (15), hydro (5), and tribal (2).

## 8. Research Limitations

The current study explores only twenty-five words related to place and archeological sites names in the Ha'il region. Future studies can focus on geographical comparisons between ancient place names and modern place names of the Ha'il region or with other regions in Saudi Arabia or regions in the Arab world. Furthermore, they can trace the origins of Ha'il dialects in relation to place names issuing from the linguistic variety of Ta'i, Semitic languages, and Indo-European languages.

## **Author Contributions**

Conceptualization, F.S.M.A.-M.; introduction. M.A.M.A.; methodology, M.A.M.A., F.S.M.A.-M., and A.A.S.A.-S.; literature review, F.S.M.A.-M., M.A.M.A. and A.A.S.A.-S.; discussion and results, M.A.M.A., A.A.S.A.-S. and F.S.M.A.-M.; conclusion, M.A.M.A., F.S.M.A.-M.; resources, F.S.M.A.-M., A.A.S.A.-S. and M.A.M.A.; data curation, F.S.M.A.-M.; writing—original draft preparation, F.S.M.A.-M., A.A.S.A.-S. and M.A.M.A.; writingreview and editing, M.A.M.A.; visualization, F.S.M.A.-M., M.A.M.A., and A.A.S.A.-S.; supervision, F.S.M.A.-M., A.A.S.A.-S. and M.A.M.A.; project administration, F.S.M.A.-M. and M.A.M.A.; funding acquisition, F.S.M.A.-M. and A.A.S.A.-S. All authors have read and agreed to the published version of the manuscript.

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## **Conflicts of Interest**

The authors declare no conflict of interest. The funder had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results.

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