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Front cover of the Book of Origins, Part II

ORIGIN OF "SEMITIC" LANGUAGES

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ORIGIN OF "SEMITIC" LANGUAGES

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ORIGIN OF "SEMITIC" LANGUAGES

An introductory original etymological investigation of the prehistoric ancestral linguistic nuclei and monosyllables of "Semitic" languages, primarily based on Akkadian and Southern and Northern Arabic
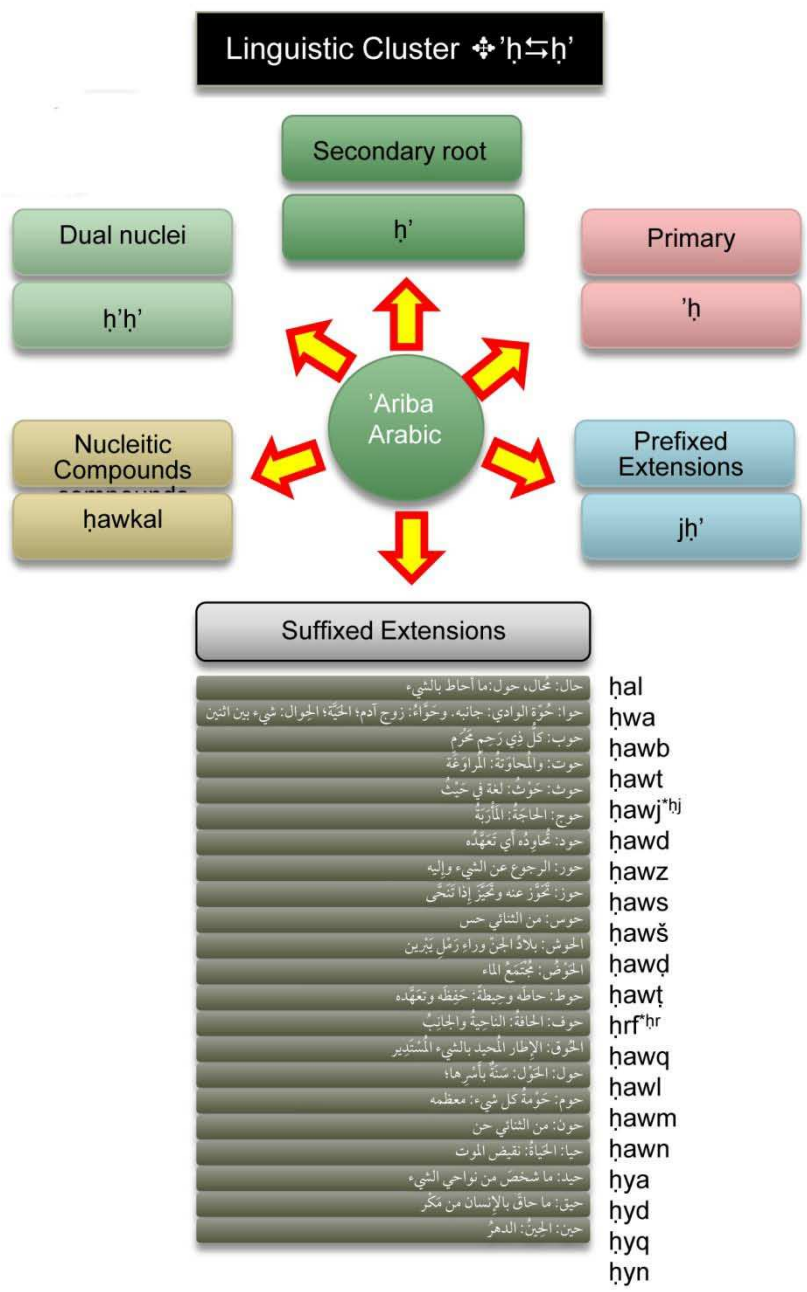
ADEL S. BISHTAWI

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LIST OF ABBREVIATIONS

LN	Linguistic nucleus
LU	Linguistic unit
DN	Dual nuclei
NC	Nucleitic compound
PE	Trilateral Prefixed Specifier Extension
SE	Trilateral Suffixed Specifier Extension

PUBLICATIONS

Books:

Bishtawi, Adel S., **The Book of Origins**:
    Volume I (English): *Origin of the Arabic Numerals - A natural history of numbers*, 3rd Edition
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Bishtawi, Adel S., **The Book of Origins**:
    Volume I (Arabic): *Natural Foundations of Arab Civilisation*
    Origins of Alphabets, Numeration, Numerals, Measurements
    Weights, Litigation and Money
    Arab Institution for Studies and Publication 2010

Bishtawi, Adel S., **The Book of Origins**:
    Volume II (Arabic): *Origin of "Semitic" Languages*
    AuthorHouse Publication 2013

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    Volume III: *Origin of Religion Scheduled for 2015*

Websites:

http://www.bishtawi.com
http://www.thebookoforigins.com

THE BOOK OF ORIGINS
SECOND VOLUME
ORIGIN OF "SEMITIC" LANGUAGES

An introductory original etymological investigation of the prehistoric ancestral linguistic nuclei and monosyllables of "Semitic" languages, primarily based on Akkadian and Southern and Northern Arabic

ABSTRACT

This paper is intended to provide a comprehensive overview in English for the Arabic version of the second volume of the Book of Origins: *Origin of "Semitic" Languages* published by AuthorHouse in September 2013. The English version of the first volume of the Book of Origins – *Origin of the Arabic Numerals: A natural history of numbers* – was published in 2010 and followed in the same year by an expanded Arabic version that included new research on the origin of numeration, alphabets, measurements weights, litigation and money.

The new research involving the history of the Arabic numerals established their prehistoric origin and confirmed a linguistic link between small numbers and small words. The scope and depth of the multilayered research were expanded in an attempt to identify the origin of "Semitic" languages and, probably, the origin of natural linguistics.

The unity of what is traditionally called "Semitic" languages may be traced in the roots, in the inflections, and in the general features of the syntax. Almost a thousand years before the publication in 1781 of *Repertorium fuer biblische und morgenlaendische Literatur*, linguists studying certain features of Canaanite (Phoenician), Hebrew, Arabic, and Ethiopic noted the interrelationship of these languages. Other studies pointed to a prehistoric ancestral origin for these and more than sixty other languages, first named *Ursemitische* and later *Proto-Semitic*.

The research in the *Origin of "Semitic" Languages* confirmed that at one time in the remotest horizon of its history, the ancestral parent of "Semitic" languages consisted of a very limited number of biconsonantals and monosyllabic root morphemes, many of which were borrowed or adapted from the natural environment. The research suggests that biconsonantals, not triconsonantals as is widely believed, were the original roots of "Semitic" languages. Words expressing the basic needs of primitive man, such as water, food, hut, stone, danger, etc., could be several

thousand years older than the oldest attested Semitic language (i.e. Akkadian) or several tens of thousands.

Akkadian, Phoenician, Aramaic, and Arabic are formidable communicative tools, yet their biconsonantal roots, or linguistic nuclei, were found to be surprisingly small. Four hundred and thirty roots were identified in two categories - primaries and secondaries. Most are paired in units constituting the main body in the larger linguistic clusters, tens of which were listed and discussed in the *Origin of Semitic Languages*, and a selected number was presented in this paper along with tables, charts and supportive materials.

With what could be the greatest linguistic secret in history unveiled in the *Origin of Semitic Languages* for the first time in history, other important surprises may follow. Careful etymological analysis of linguistic nuclei, some of which were borrowed from animals and ancient environment, may present the true origin of scores of biblical names and ancient locations. Moreover, new windows can be opened on the various aspects of early societies to provide what appears to be a sufficiently clear picture of the their life, their first steps on the long road to civilisation, the origin of religion and, probably, the development of human consciousness.

PART 1   NATURAL LINGUSITICS

1.1   INTRODUCTION

In certain extant literature, "Semitic" languages are sometimes described as a group of related languages originating in the "Near East" whose living representatives are spoken by people across much of the Middle East, North Africa and the Horn of Africa. The group includes several scores of languages the most widely spoken of which is Arabic, or more correctly *Modern Arabic*, a tongue of about 430 million people, and the prayer language of more than a billion additional people all over the world.

Edward Lipinski noted that "Semitic" languages were so named in 1781 by A.L. Schloezer because they were spoken by peoples included in Gen. 10, 21-31 among the sons of *Sem*.[1] Though the description "Semitic" is considered "practical" by some, a number of scholars, past and present, have voiced certain concerns since "*Semitic*" allows for a considerable degree of confusion and misunderstanding. One of the earlier scholars is George Rawlinson who thought the name is both irrelevant and problematic.[2] More accepted is the principle of unity of "Semitic" languages as evident in the roots, the inflections, the general characteristics of syntax and other features illustrated by Lipinski:

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[1] Lipinski, Edward, *Semitic Languages: Outlines of a Comparative Grammar*, 2nd ed., Leuven 2001, p. 21.

[2] "The Phoenician people are generally admitted to have belonged to the group of nations known as Semitic. This group, somewhat irrelevantly named, since the descent of several of them from Shem is purely problematic, comprises the Assyrians, the later Babylonians, the Aramæans or Syrians, the Arabians, the Moabites, the Phoenicians, and the Hebrews. A single and very marked type of language belongs to the entire group, and a character of homogeneity may, with certain distinctions, be observed among all the various members composing it. The unity of language is threefold: it may be traced in the roots, in the inflections, and in the general features of the syntax. The roots are, as a rule, bilateral or trilateral, composed (that is) of two or three letters, all of which are consonants. The consonants determine the general sense of the words, and are alone expressed in the primitive writing; the vowel sounds do but modify more or less the general sense, and are unexpressed until the languages begin to fall into decay. The roots are, almost all of them, more or less physical and sensuous. They are derived in general from an imitation of nature." Rawlinson, George, *History of Phoenicia*, London 1889, pp. 49-50. (Here).

The Semitic languages, although their number amounts to about seventy, have a much larger layer of common elements in their phonology, morphology, syntax, and vocabulary than the Afro-Asiatic group as a whole. They also share certain common features in their evolution, easily recognizable in ancient and in modern forms of speech. These common elements and parallel developments, maintained despite lapse of time and spreading over new areas, strongly support the family-tree theory which regards the dividing process that affects a homogeneous language – in this case Proto-Semitic – as the main impelling power from which new idioms originated (p. 43).

The linguistic daughters of "Proto-Semitic" have the oldest attested history. Certain texts in Akkadian and Eblaite date back to the middle of the third millennium BC in Iraq and northern Syria, while certain religious texts found in Egypt are believed to be 4400-4300 years old. However, alphabets are a relatively new invention, and the spoken language could be several thousand years older than the oldest epigraphical evidence discovered thus far. As "Semitic" languages are mainly attested in Iraq, Syria and Egypt, determining the original homeland of the speakers of the *mother tongue*, or "Proto-Semitic", has been considered "necessary for an understanding of the mutual relations and parallel developments of the historically documented Semitic languages" (Lipinski, p 43).

Some scholars suggested that identifying the original homeland of "Proto-Semitic" should take into consideration the linguistic relations between the different members of this family as well as between the various groups of the larger "Afro-asiatic" family. Perhaps more relevant is the conclusion that a better understanding of the relations of the attested "Semitic" languages can best be explained by identifying the ancient origin of all these languages, which should be older than old Akkadian, preserved on clay tablets dating back to about 4600 years.

As the greatest secrets of prehistoric human beings can be revealed in the deepest layers of identified ancient caves, so probably can be the oldest languages if their ancient roots are properly investigated. Rawlinson identified the roots of "Semitic" languages as *bilateral* or *trilateral* - i.e. composed of two or three letters,

"all of which are consonants". In modern literature, the roots presented as examples consist of bilaterals (*ʾb* "father") or trilaterals (*mlk* "milk").

Unfortunately, Arabic, an important family member, is generally described as "based primarily upon its system of triconsonantal roots". However, experienced scholars are usually more careful for good reasons. Says Lipinski, "The existence of biconsonantal roots in Semitic languages, besides the triconsonantal ones, cannot be denied, even apart from the roots that became biconsonantal in consequence of the dropping out of one of the radicals" (p. 207). He further added that the number of roots increases significantly if one accepts that only two of the three radicals of the triconsonantal roots are the main bearers of the meaning and that the third one had at one stage the task of a determinant or modifier. A page later he said: "Contrary to the traditional opinion, the basic stock of the Semitic vocabulary appears to consist of monosyllabic root morphemes."

The following contribution to the argument is intriguing: "The Semitic languages have nonconcatenative morphology. That is, word roots are not themselves syllables or words, but instead are isolated sets of consonants (usually three, making a so-called *trilateral root*). Words are composed out of roots not so much by adding prefixes or suffixes, but rather by filling in the vowels *between* the root consonants (although prefixes and suffixes are often added as well). For example, in Arabic, the root meaning, "write" has the form *k-t-b*. From this root, words are formed by filling in the vowels, e.g. *kitāb* "book", *kutub* "books", *kātib* "writer", *kuttāb* "writers", *kataba* "he wrote", *yaktubu* "he writes", etc.[3]

If one is to accept that the roots of "Semitic" languages are an important evidence of the unity of these languages, once must first determine the nature and the historical development of such roots. It has been suggested that these roots are composed of two or three letters, all of which are consonants. Also suggested above is the possibility that certain roots "became biconsonantal in consequence of the dropping out of one of the radicals", while it was also suggested that "words are composed out of roots not so much by adding prefixes or suffixes, but rather by filling in the vowels *between* the root consonants".

Two of the suggestions above are worthy of further investigation:

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[3] *http://en.wikipedia.org/wiki/Semitic_languages* (Accessed: 24.09.2013).

1) *two of the three radicals of the triconsonantal roots are the main bearers of the meaning and that the third one had at one stage the task of a determinant or modifier*;

2) *the basic stock of the Semitic vocabulary appears to consist of monosyllabic root morphemes.*

The second suggestion, though one of several suggested elsewhere, can be effort-lessly supported by any student of Akkadian. However, the conclusion that "two of the three radicals of the triconsonantal roots are the main bearers of the meaning" is the closest thus far identified to the true nature of the bilateral "Semitic" roots and their trilateral extensions. Nevertheless, the vital question remains: Why so?

Though no examples were provided, "Semitic" roots can be identified as either the first and second, or the second and third radicals of *original* trilaterals. This should not conflict with the fact that a substantial number of roots consist of mono-syllabic morphemes, but the core root appears to have been constructed of two let-ters suggesting that languages like Akkadian and Arabic combine *two originally different prehistoric languages* that will be identified later on.

1.2   CHARACTERISTICS OF "SEMITIC" ROOTS

The investigation of the origin of the Arabic numerals[4] revealed their ancient history and confirmed the accumulative dynamic that transcends ages and applies to most fields of human knowledge developed, in the majority of cases, by *necessity*. It follows that ancient people *needed* to express the number "one" before they needed to express the number "ten" and "ten" before "fifty", etc. Yet, in a language like Arabic, the word for *one* - "wahid" (wāḥid) - and *ten* - "ashra" ('ašra) - consist of the same number of letters per word. If *one* preceded *ten* by hundreds or thousands of years, should it not consist of a smaller number of letters?

Etymological investigation revealed that the root of number *one* consists of two letters; more surprising was the discovery that all Arabic numerals have bilateral roots. The investigation was later extended to include more than nine thousand en-tries in *Lisan Al Arab*, the most comprehensive Arabic dictionary. However, serious

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[4] Bishtawi, Adel S., *Origin of the Arabic Numerals: A Natural History of Numbers*, Bloomington, IN: AuthorHouse 2011. Chapters related to the origin of Arabic numerals were incorporated in Part 1 of the *Book of Origins* in Arabic: *The Natural Foundations of Arab Civilisation: The origins of alpha-bets, numerals, measurements, weights, litigation and currency,* launched in London in 2010.

inconsistencies emerged and it was found necessary to consult other "Semitic" languages, the most important of which was Akkadian - the oldest attested "Semitic" language – insuring the inclusion of both the oldest and youngest members of the "Semitic" family.

The conclusions of the systematic, multi-year etymological research into the origin of "Semitic" languages were presented in *An Introductory Original Etymological Investigation of the Prehistoric Ancestral Linguistic Nuclei and Monosyllables of "Semitic" Languages, Primarily Based on Akkadian and Southern and Northern Arabic*

In addition to *wāḥid*, Arabic contains *'had*. A third word, *ḥd* (ḥad), has a number of meanings that may appear different to "one", "single" or "only". Determining the bond that ties all these meanings requires the determination of the original meaning given to the root of these words - i.e. *ḥd*. On its own, the root has a number of meanings including "border", "a separation line", the "sharp edge of a sword or a dagger", "assigned punishment for certain crimes", and so forth.

Such a determination has to take into consideration the "primitive" natural environment in which prehistoric human beings began to develop language. A rough line drawn by a stick, a rock or a finger between two primitive huts in Eastern Africa or Southern Arabia would be considered "a border" or a "separation line". The line itself, when approximated, is similar to the sign for number *one*, still communicated in our time by holding the right index finger upright.

However, it can be suggested that the need for early human beings to claim a plot of land by separating it from other plots is an advanced concept of ownership. Therefore, the root *ḥd* appears to be the product of an advanced stage of early thinking. The need to employ the same root, *ḥd*, to describe the sharp edge of a sword or a dagger is likely to have come at a much later stage of development, probably involving the ability to use copper or bronze to make swords and daggers. The use of bladed weapons to punish the guilty could only have come at a much later stage of social development because punishment involves advanced moral and judicial concepts such as right and wrong.

What should be noted is that the root *ḥd* may have been developed to express a single, easily defined meaning. Other related meanings may not have been added to the original meaning until such a time when the root was overloaded to

such a confusing degree that people were compelled to extend the root by adding a third letter, thus producing - for example - *ḥdr*. This trilateral has several meanings, so it may take some investigation to determine its connection with its root. One of them is "to descend", involving movement from a higher to a lower location, or from one type of terrain to another, or from one side of a border to the other. The trilateral *ḥdd* - "determine, or specify" - is another extension, the relationship of which to the original meaning of its parent should be clear. The trilateral *ḥdb* - "humping" - may appear to be an extension of *ḥd,* but the appearance is merely visual because it is an extension of a different root: *db*. One of the meanings of *db* is "to crawl", and another "bear" (as in the animal). With a little imagination, a connection can be established between "humping", "crawling", and the way bears move.

It may be useful for semanticists to take into consideration that the need that gave rise to expanding the range of meaning of bilateral roots by adding a third letter is different from the need that gave rise to the invention or adaptation of original roots. The time difference between the two may be measured in hundreds or thousands of years. Early man should be assumed to have found the need to identify things and concepts that were vital for survival before identifying moral or literary concepts at a much later stage of development, most probably in another era. Such roots should be assumed to identity water "m'", food "kl", hut "pt", tree "'š", stone/pebble "ḥṣ", danger "ḫt → ḫtr", important animals "b', fḫ", in addition to basic actionable roots such as cut "ṭq/qṭ", walk "mš", run "gr", sex "'r, nk", hunt "ṣd", fear "ḫf", etc.

The accumulative logic of knowledge which implies that people knew one before ten or fifty before hundred should also imply that people invented, or adapted, two-letter words before inventing three-letter words. Researchers who claim that *ḥdr* is a root should find it hard to explain the origin of *ḥd*m and would find it even harder to establish a relational meaning between *ḥdr* and *ḥdd*. The challenge is not to identify bilateral roots - hundreds of which are listed in *Tahḏīb al-Luġa* - but to identify the original meanings of bilaterals. Once achieved, a range of meanings for most roots can be established, and the process of identifying the relationship between roots and extensions can begin.

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1.3 PREHISTORIC GENIUS

A more challenging undertaking is to establish the relationship between one root and another. Not all roots are monosyllabic morphemes, for a reason that will be explained later. Those that are have a unique feature that may be described as "revolutionary". Morphemes by design are not supposed to be broken up without losing all sense of meaning.

However, they can be reversed.

Faced with a limited number of roots and an increasing number of things, concepts and situations that needed to be identified and communicated, a genius began a revolutionary process involving the reversal of the monosyllabic root, thus producing another set of roots that doubled the number of roots available for use.

For example, the root *ṭq* (طق) is a sound frequently heard in nature when branches are broken or rocks fall onto solid ground. When reversed, *qṭ* (قط) was used as a new container for additional communicative expressions added to the existing stock of vocabulary.

Al-Azhari of Tahḏīb al-Luġa is probably the best authority on the tongue of 'Ariba, a distinguished ancient Arabian race who established great empires in Iraq, Syria and Egypt.[5] Yet he failed to establish the link between the original root *qṭ* and the reversed version *ṭq,* as is the case with most roots he examined due, in part, to his adherence to the explanations of pioneer lexicographers or interpreters of religious texts.

The root *ṭq* is treated in Arabic dictionaries as little more than onomatopoeia, but in colloquial Arabic, which appears much older than Modern Arabic, it means, "to break", sometimes metaphorically as in *ṭq raqabatu,* "he broke his neck". The original meaning of *qṭ* is "to sever" or "to break". When the time came to distinguish between different types of cutting, the root was extended, creating *qṭ* "sever", *qṭr* "distil, extract (achieved in certain cases by cutting sugar cane)", *qṭl* "killed" (*qtl* appears to be a variation), and *qṭm* "cut off" or "chop off". *Qṭf* is another extension used to describe the general act of cutting, but it is more accurately used to de-

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[5] Says Ibn Khaldoun, "This nation is the oldest…, mightiest and most powerful of all on Earth, as well the nation that left us a great legacy. We have been told that they were the first Arab generation… They had kings and kingdoms. They controlled the Arabian Peninsula… and their dominance stretched to Sham (Iraq, Syria, Lebanon and Palestine) and Egypt… They include the nation of 'Ad, Thamūd and Tassm" (*The Introduction*, pp. 18-19).

scribe the picking of roses, cotton or bunches of grapes.

Individually, both *ṭq* and *qṭ*[6] have identifiable ranges of meaning. At the same time, both combine to provide a wider range that should be confined, albeit sometimes loosely or by deduction, to the original meanings of the two roots. The two roots are considered in the *Origins of "Semitic" Languages* as a linguistic unit (*qṭ⇆ṭq*) in an interim list (pp.135-142) of more than 200 identified linguistic units combining both monosyllabic morphemes and original bilaterals.

In general, linguistic units made up of monosyllabic morphemes appear to be more disciplined and much easier to identify and group than their bilateral counterparts. They include some of the linguistic powerhouses of language such as *ṣl⇆lṣ, ṣm⇆mṣ, rṣ⇆ṣr, dr⇆rd*, etc. The fields they cover are wide-ranging and include inventions such as soap making (bṣ⇆ṣb), arithmetic (ḥṣ⇆ṣḥ), industry (ṣn⇆nṣ), angles and scales (zw⇆wz), and urbanisation ('m⇆m'). Aspects of famine and shortages of food were allocated a number of units including *j'⇆'j* and *lh⇆hl*. Snakes, the source of both fear and awe, were treated in two units, *'f⇆f'* and *ḥf⇆fḥ*. An extension of *ḥf* is *ḥawf* "fear", indicating that serpents were not considered a source of fear but fear itself.

In comparison, bilateral roots appear to be much older and more difficult to reconstruct, probably due to their ancient origin. In addition, a number of such units consist of the *hamza*, a short or soft *a*. This unique letter is extendable to a full *a*, *w* or *y*, creating both remarkable flexibility and confusion. One reason why some extensions of words containing the hamza are difficult to identify and collect in units and clusters is the tendency of classical lexicographers to spread them out in many sections of extant dictionaries.[7]

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[6] Akkadian: *qatû* (1): (work, object, education) finished, ended, completed; *qatû* (2): 1) to come to an end , to finish (time, travel, life...), to be finished / completed (work, building...); 2) to be exhausted (person, resource), to run out (resource, drink...), to (almost) die / to be finished; 3): (stative): to be totally devoted to the king; *qatû* B: to end, to finish; (D) to bring to an end, to destroy; *qatû*: G. to be ended D. to bring to an end; to do in full; *qātu*: hand; paw; handle.
(*http://www.premiumwanadoo.com/cuneiform.languages/dictionary/index_en.php*).

[7] For example, extensions of *'h⇆h'* include *'hn, whn, why, diah, jawh*, etc. Lexical and grammatical extensions of a unit like *'r⇆r'* are unusually difficult to group. *R'* "to see" produces odd constructions such as *mr'āh* "mirror", *maraya* "mirrors", *tra'ā* "transpire, appear", *ro'ya* "vision". The inclusive nature of ancient linguistic nuclei presents etymologists with challenges almost every step of the way. *Mr'* (originally *m'r*) "man, woman, boy, girl, son, daughter" is a prefixed extension of *'r* "sex, vagina, penis, bottom, etc." The reason for this inclusiveness is simple – they are all connected to sex or private parts. The fact that no plural exists for the singular *mr'* can be explained by the difficulty to pronounce such a plural if its construction is at all possible. *"R ('yr)* "penis" (Eros, erotica?)

Nevertheless, hamza units and clusters are rich in spirituality, feelings and other human qualities and concepts. Such units include *'š⇆š'*, *'r⇆r'*, *'d⇆d'* and *'l (il) ⇆l'*. A thorough analysis of the roots and extensions of the last unit reveal how the concept of God was formed, surprisingly perhaps, in prehistoric times. This, along with several similar units, will form the core of the *Origin of Religion*, the third and last part of the *Book of Origins*.

The unit *'ḥ⇆ḥ'* has a wide range of meaning revolving around water and water holes. It is of particular interest due to three extensions: *ḥayya* "snake", *ḥayat* "life" and *ḥawwa* "Eve". The meanings of these three extensions would be considered to be within the unit's range of meaning, since water is essential for life. Due to their brisk movement, snakes appear to have been viewed as a symbol of life, while *ḥawwa* "Eve", like water, is life giving. Another prominent unit is *'r⇆r'* which has an extensive meaning range justified by the subjects it treats, including sex, sexual desire, the relationship between man and woman, child-caring, inheritance, fire-holes (for cooking), motherly love and tending to children. As roots can be all-inclusive by association, the meaning range of *'r* includes vagina, penis, and bottom. Bottoms are at the back of the human body, so extensions of this unit include *wara'* "behind, back", and *'rḫ* "history", relating to events that took place in the past or "behind" current times.[8] The unit with the most extensions is *'š⇆š'*, the meaning

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is easier to group: *'yūr*. The claim that *mar* is Sumerian for "son" should be reviewed. Originally, Sumerian was an east African language spoken by the *Sum*, a creative and distinguished race, and one of five races who appear to have settled in Arabia or were known to the other races at the time. Toponymical evidence of the Sum exists in *Somalia*, a nucleitic compound: *Sum, mal* "fill, many, nation, creed [milla]"; *Axum* which appears to be another nucleitic compound *'k* "hill", "Sum"; *Sumharam,* an ancient port in today's Sultanate of Oman where the Sum appear to have lived before all or some of them migrated to Southern Iraq and Najd. Two main tribes settled in Najd, *Jadees* (a prefixed extension of *Jadd*, a Yemeni tribe), and *Ṭassam*, a prefixed extension of *Sum*. Several words in Modern Arabic appear to relate to the *Sum* noting their creativity and love of merriment: *mismar* "nail", *sumr* "dark skin", *Samar* "merriment, especially at night" and *samroot* "tall". Two words stand unique and both are prefixed extensions, *'sm* "name" and *rsm* "drawing or imprint". Many of the words claimed to be Sumerian have linguistic nuclei. Possible examples include, *Alla Xul* "evil God" → "Allah (*il)ġūl (ġl) [monster]"; *kasadu* "arrive" → *qaṣd* (ṣd); *sikaru* "beer", Ar. *sakar* "intoxicated" (kr [originally gr] → *takrir* "repeat, distil"; *nasaku* "bite" (should be *našk*, from *šk* "thorn, to pierce"; *salmu* "black" → Akkadian *šillu* (šl), *šulūlu* "shade, shadow". Like many other biblical names, *Ishmael* appears to be a nucleitic compound*, sum, 'l* "senior, high". In this sense, *šm* (Shem) is a corruption.

[8] Akkadian: *'r*: arītu: a pregnant woman; arû: to be pregnant, to conceive; arûtu: conception / being pregnant; erītu: a pregnant woman (or female animal); ir'emum: loved one, beloved, dear, darling; narāmu: 1) love, beloved (of a deity); 2) (personal name); 3) (deity) who loves; 4) love of / for: 5) (adverb). *'r*: ra'īmu: loved, beloved, loved one; rā'imu: in love; noun: a lover, a well-wisher; ra'intu: beloved, loved one, darling, dear (to the heart), sweetheart, honey (darling); rā'imu: loving, in love, fond, amorous; a lover, an enthusiast (?), a well-wisher. [Comment: It appears that extend-

range of which centres on trees and the use of wood to build huts. The unit has certain characteristics similar to those found in bilateral roots, but it could alternatively be a monosyllabic morpheme - i.e. of Yemeni origin.

The wide meaning range of roots supports the possible conclusion that the two roots of linguistic units could not have been created at the same time. The time difference could be measured in tens, hundreds or even thousands of years. One of the roots is primary and the other secondary, but both were given the same productive powers. In certain cases, it is possible to identity the primary root easily. It usually expresses things that exist in the environment and has fewer available extensions, sometimes with vague or imprecise meanings that fall outside their expected meaning range.

Identifying a single letter and adding another to form the basic bilateral root may appear accumulatively natural. Identifying a monosyllabic morpheme as a root may appear advanced in primitive times, until one realises that these could be even more primitive than bilateral roots. One of the possible explanations for this is that many primary monosyllabic morpheme roots are human approximations of sounds heard in nature. One example is *ṭq* but so is *hr, zq, hb, fḫ, ḫr, ṭb* and many others. In such cases, the reversed root ceases to be a sound approximation and may instead qualify as a human invention.

The Yemeni origin of many monosyllabic root morphemes is betrayed by the inclusion of *g* and *p*, two letters that were not used in Hijaz. Many other roots and extensions can be identified as Yemeni by examining references in Arabic literature to their Yemeni origin. The vocabulary stock of Akkadian includes both bilateral roots and monosyllabic root morphemes, but this ancient language provides the researcher with sufficient evidence to map the extensive influence of the Yemeni stock of vocabulary in Modern Arabic.

Some *g* roots appear to have had an ancient migration to *k,* as is the case with *gr → kr* in Akkadian.[9] However, in Modern Arabic the *g* migration is not limited to *k*

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ers of both *ʾr* and *rʾ* are within the context of love, but reviewing other extensions of *rʾ* may give the impression that it is the type of love a mother has for her child. *R'm* in Modern Arabic is "to feel for, feed". This is supported by another extension *rʾf* "to take pity on, feel mercy for". The meaning range of 'r⇆r' begins with sex but extends to the family and caring for children.

[9] A: Gerru (1), kerru: 1) way, road, path, thoroughfare, 2) caravan, 3) military campaign, march, 4) (religious) procession; gerru (2): lion cub, young of the lion, puppy; gerru maṣṣartu: patrol; gerru šarri: royal road, royal way of life. B: kerrētu: marching song (?); kerru (1), karru, kāru: male sheep.

but includes *j* and sometimes *q,* creating extensive duplication in extant dictionaries. Likewise, *p* migration in Modern Arabic is not limited to *f* but includes *b* as well, with equally extensive duplication. A number of important *Hijazi* words deemed "northern" were found to be of Yemeni origin, such as *ḥasb → ḥaṣb* (an extension of *ḥṣ*)*,* as well as many religious expressions attested in Akkadian*.* So far, 13 *g* linguistic units have been identified in Modern Arabic, migrated to more than 25 units (listed on page 270). The *p* units are seven, with 14 *f* and *b* migrations (p.284).Origin of "Semitic" Languages

1.4 LINGUISTIC STRUCTURE: LN, LU, DN, NC, SE, PE, LC

The reconstruction of the relevant stock of Modern Arabic vocabulary and the comparative referencing with specific available Akkadian stock revealed an elaborate linguistic structure consisting of six main parts:

1- Monosyllabic root morphemes and bilateral roots collectively described in the *Origin of "Semitic" Languages* as linguistic nuclei (LN): e.g. *ḫr* "fall, descend, flows"

2- Linguistic units (LU) consisting of pairs of primary and secondary nuclei. They are identified by a special sign (⇆) symbolising their interrelationship: e.g. *ḫr⇆rḫ*

3- Dual nuclei (DN) composed of two identical suitable roots: e.g. *ḫrḫr* (a human approximation of the sound of flowing water)

4- Nucleitic compounds (NC) constructed of two different linguistic nuclei, characterised by having a literary meaning and a conventional meaning derived from or suggested by the literal meaning: *ḫr+nb* (*ḫrnb*) "carob" (Ak-

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Semanticists attempting to identify the chain linking all these words and many others should take into consideration the original meaning of *gr* "drag along, pull", its suffixed extension *gra* "run", and its prefixed extension *'gr* "fee, till, plough". The common denominator for "way, path, caravan, military campaign, march, puppy, royal road, thoroughfare, procession, etc.," is that they all *run* or *run along,* whether physically or metaphorically. Prefixed extensions are usually distinguished by a number of qualities. To understand why *'gr* is named so, the environment or era of its birth should be considered, in this case the advent of the a**gr**arian era. Straight lines dug to plant oats or wheat can resemble little roads. A man employed to do this type of work is an *'kkar* "ploughman" who is paid a fee ('jr →'jra → 'gra). The plot in which he works is a *'kr* "acre". Farming at one time was the largest source of employment, so much so that their profession came to denote all professions, hence *kar* "profession" in Damascene dialect.

kadian *ḫarûbu*).[10]

5- Trilateral specifier extensions of the linguistic nuclei created by supplementing the linguistic nuclei with a third suitable letter. Trilateral extensions are of two types:

   a) Suffixed specifier extensions (SE) constructed from linguistic nuclei followed by an additional suitable third letter: *ḫrb* "destroy, ruin".

   b) Prefixed specifier extensions (PE) constructed from linguistic nuclei preceded by a suitable letter: *nḫr* "hole, puncture, perforation, aperture, bore, tear", "nostril".

6- Linguistic Clusters (LC) which in standard cases group all the above parts, but may be limited to a linguistic unit and a few suffixed extensions. In most cases, components of the Linguistic Clusters depend on their availability in dictionaries, glossaries and other relevant references, but it is also possible to identify "missing" roots or to correct corrupted or misspelled trilateral extensions and nucleitic compounds. A special sign (⌖) is given to Linguistic Clusters: ⌖ḫr⇋rḫ.

It should be noted from reviewing the above unique construction that "Semitic" ('Ariba) languages are made not of individual words but of a unique family of clusters, the total number of which should reflect the total number of words contained in the clusters, and therefore, in a given language. If lexicographers list the primary root *ḫr* and its suffixed specifier extensions under *Ḫ,* and the secondary root *rḫ* and its suffixed specifier extensions under *R,* they would be splitting an integrated linguistic unit in half. Moreover, the proper place of the prefixed specifier extension *nḫr* is under *Ḫ,* not under *N.* As prefixed specifier extensions number in the hundreds, they are scattered throughout dictionaries and linguistic works.

The same applies to dual nuclei and nucleitic compounds, but specifier extensions present a special challenge. It has been suggested "only two of the three radicals of the triconsonantal roots are the main bearers of the meaning and that the third one had at one stage the task of a determinant or modifier". This is true in

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[10] Determining the original meaning of certain Nucleitic compounds can be enhanced by researching the target meaning. In this case *ḫr* means to "fall, drop" whereas *nb* is "plant" (nabat). When ripe and hardened, the pods fall under the trees in large numbers, hence this simple and natural description of the sweet and nutritious fruit. The claim that "carat" is derived from *carob* appears to be incorrect. It is from *qr*, originally "to settle" but extended to mean a plot of land.

some but not in all cases. Prefixed or suffixed specifier extensions constitute the largest block of vocabulary. As almost all root extensions are radical trilaterals, linguistic nuclei are made either of the first and second letters, or the second and third letters. In certain cases, a trilateral can be a prefixed extension of a root as well as a suffixed extension of another. Meanings given in dictionaries of such a trilateral may include a mixture of the meanings of both roots, resulting in contradictory elements. One example is *bṭl* (baṭal) "hero" or *buṭula* "heroism", but also *baṭel* "delusory" and *baṭala* "unemployment". "Heroism" is one of the meanings of *ṭl* whereas "unemployment" is one of meanings of *bṭ*. Other examples include *n'š, 'jm, 'rn, wrq, ġrm, wqr, mḥn, 'nb, rd', fna, ḥma, 'jl, l'm, nṭq, kf', šr', brj* and *nqb*.

1.5   SOURCES OF "SEMITIC" ORIGINS

The linguistic structure identified above is not the *ideal* but rather the *actual* structure. Had classical lexicographers of a language like Arabic been aware of the actual components of the language they treated, the number of "orphaned" entries in their works would have been a fraction of what is found in extant dictionaries. Place names, forenames, given names and other types of names may constitute a separate category but this is largely not the case in languages like Arabic or Akkadian. One of the reasons is historical, in the sense that users of the language had a limited number of words, which they had to use for all sorts of designations. In most cases, such names would have a meaning, including hundreds of surnames constructed from nucleitic compounds.

The 'Ariba family of languages is very ancient. Time and the extensive geographical spread of the speakers of these languages can be justifiably blamed for the considerable number of inconsistencies that challenge the researcher, but the age-old failure of linguists to identify the basic structure of 'Ariba may serve to throw a blanket of doubt over the value and soundness of many of their works. Several linguists of Arabic permitted the interchangeability of certain letters on no more grounds than personal taste or preference. This can result in a number of serious problems. For example, changing *ṣ* in certain roots to *s* or *ṭ* to *t* may destabilise entire linguistic clusters.

Many early linguists provided answers to important linguistic questions, but no one appears to have explained the reason for the dual or treble migration of entire

Yemeni clusters, thus adding hundreds of duplicates to dictionaries. Perhaps even more significant is the absence of a convincing explanation for the inclusion of four letters - ṯ, ḏ, ḍ and ẓ - in the Modern Arabic alphabet that are absent in 'Ariba. This is not to deny that certain Arabs or Arabians may have used such letters, but if they did, their identity was not revealed. What is clear is that most of the words containing these letters have older versions incorporating the original letters, and many are attested in Akkadian. A number of linguistic units and clusters with extensions comprising one or more such letters were found to be *migrations* from original units and clusters, and many supposed trilateral roots had either very few extensions or none at all.

Nevertheless, the dictionaries of Modern Arabic appear to be the bedrock on which several millennia of linguistic layers have settled. Akkadian, on the other hand, has a clearer structure but its available stock of vocabulary is not adequately sufficient to reconstruct the "Proto-Semitic" language. As far as this research is concerned, both Akkadian and Modern Arabic are vital for achieving a comprehensive restructuring of 'Ariba. Consulting colloquial Arabic dialects may be considered mandatory for the attempt of such construction, especially that of the Sham (Syrian) dialect, characterised by its northern Arabic and Phoenician influence, and the Palestinian dialect which is primarily of ancient Yemeni origin.

1.6 CASES AND SITUATIONS

In all applicable instances, the researcher is advised to pay special attention to determining the case or situation of linguistic units and clusters. The case or situation of certain units and clusters can be clear or even obvious. For example, the case of the cluster ﺝ/ﻴﺝ is hunger, including its causes, effects and the steps taken by the people of the time to overcome it. Once the case or situation is determined, the researcher acquires a decisive tool for excluding expressions not related to the case or situation of the unit or cluster studied. Careful attention in these instances is rewarding. For example, it may not be clear what connection there is between *j'* "hunger" and *j'a* (ji'a) "beer", until one realises that beer may have been first created because it contained heavily soaked oats that were considered inedible before the onset of famine. The connection between *j'* (jū') "hunger" and 'j ('jaj) "dusty storm" reveals the cause of famine - i.e. drought that allows wind to carry away

particles of parched soil.

Determining the case may help also in explaining certain contradictory expressions. For example, meanings of the primary *ḫr* include "fall", "descend", and "flows". The meanings of its suffixed extension *ḫrb* include "destroy" and "ruin". Yet, *prosperity* and *good life* are two meanings assigned to the secondary root *rḫ*, confirmed by its suffixed extension *rḫa* "soft, wet, plentiful". The unit *ḫr⇆rḫ* and the expanded structure *✢ḫr⇆rḫ* concern neither ruin and destruction, nor softness, wetness nor prosperity, but rather objects that fall from the sky or high places, and substances that flow. Meteor showers can cause ruin and destruction, but rain showers can provide an abundant harvest and consequently prosperity. Another related extension is *rḫṣ* "cheap", something to be expected in times of plenty. Furthermore, what could the connection be between *ḫr* and its suffixed extension *ḫrʾ* "faeces"? Refuse *falls* from the body, like meteors or rain from the sky. What about *naḫīru* (Akkadian: *nostril*, Arabic: *minḫr*)? It is simply a hole, like any hole made by a *falling* object.[11]

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[11] ✢ḫr⇆rḫ: Akkadian: ***ḫr**: ḫarābu: G. to be(come) deserted Š. to devastate, lay waste Št. to be devastated; ḫarādu (2): an onager, a wild ass, a wild donkey; ḫarādu (D): to warn; ḫarādu: to watch, to attend, to prompt (D) to warn, to alert (N) to be attentive, to watch out, to be careful; ḫarāru, ḫarāṣu, ḫarû: to dig; ḫarāru+: gnarl; ḫarāru: to dig, to hollow out; ḫarāsu: to itch, scratch; ḫarāṣu: G. to subtract, deduct; to excavate; to make clear, become clear, to do accurately; to fix, define; to issue clear commands D. to reduce; to wrongly diminish Št. to calculate deduction, deduct N. to be subtracted, deducted; ḫarāšu (1): G: to be in labour / labor, to reach the concluding stage of pregnancy; ḫarāšu (2): G: to bind (on); D: to bring together, to collect, to plant (trees in a park); ḫarāšu (3): G: to be silent / mute + / dumb + / tongue-tied +, to become mute, to lose the faculty of speech; D to silence, to hush, to make dumb, to deprive of speech; ḫarbānāti: ruins, rubble; ḫarbānu: desert dweller; ḫarbatu: wasteland, ruins; ḫarbītu: a ruin; ḫarbu (1): deserted; n.: desert; ḫarbu: plough; ḫarbutu: untilled land; ḫarbūtu: havoc, desolation; ḫarḫarru: chain (Dual nuclei (DN), sound approximation); ḫarīru: 3) a kind of garment or textile (ḫarīru → Arabic *ḥarīr* "silk" but Akkadian, with *ḫ*, is probably correct because fibre comes out of the larvae, metaphorically, like faeces. Additionally, *ḫr*, originally "volcanic rocks" has no possible connection with silk or the making of silk fibre).

*rḫ: raḫāṣu: G. to destroy, devastate, trample; to rush, hurry Gt. to rush towards one another D = G N. to be devastated; raḫāṣu: G. to wash, bathe (v.i. & v.t.) Š. to soak N. to be washed; raḫāṣu: G. to trust, rely Š. to make confident, cause to trust; raḫāṣu: G. to gather, hold a debate; raḫḫīqu +: far, far-away, distant (this is from **rḫ*); raḫīṣu: pile of harvest produce (especially straw); rēḫtu: 1) remainder, remnant, leftover, rest; reḫû*: to pour in, to imbue, to impregnate, to fertilize, to beget (Dt) to be(come) pregnant; reḫû: 1) to pour out (river, liquid), to ejaculate / have sexual intercourse, (sleep) to flow over / to overtake -someone- ; 2) (man) to copulate, to inseminate, to make love / fuck / have sex / get laid; rēḫu: remaining, leftover; subst.: rest, remainder; rēḫtu: 1) remainder, remnant , leftover, rest; reḫû*: to pour in, to imbue, to impregnate, to fertilize, to beget (Dt) to be(come) pregnant; reḫû: 1) to pour out (river, liquid), to ejaculate / have sexual intercourse, (sleep) to flow over / to overtake -someone-; 2) (man) to copulate, to inseminate, to make love / fuck / have sex / get laid; riḫiṣtu: destruction, devastation, flooding; riḫiṣtu: inundation; riḫūtu: 1) sperm, semen, pouring out insemination, ejaculation +, fishes: spawn; 2) personal name; riḫûtu: progeny, sperm; [riḫûtu amēlūti] (medicine): human semen, human sperm; [riḫûtu alpi] (medicine): semen of ox / bull;

1.7 HISTORICAL CONSIDERATIONS

Statements such as "Arabic is based primarily upon its system of triconsonantal roots" are unfortunate since they are hard to understand without a clear and logical explanation for the presence of hundreds of biconsonantal roots. The claim that some biconsonantals are de-inflections from triconsonantals should be tested only if a reasonable number of examples were to be presented. What should be taken into consideration is that languages are accumulative by their very nature, and that the development of primitive languages was dictated by the need to communicate in order to maintain or improve the chances of survival and the welfare of early societies.

Lexically, triconsonantals are either suffixed specifier extensions or prefixed specifier extensions of linguistic nuclei or biconsonantal roots. Representing about 10% of total triconsonantals, prefixed extensions appear to have been favoured by priests, orators and poets. If the word is important or "distinctive", there is a good chance that it is a prefixed extension. The linguistic needs of divination, oration and poetry are relatively new compared to the need to communicate expressions related to necessities and matters of life and death. Yet, we also have the prefixed extension ʾkl "food", which raises the possibility that some prefixed extensions were created before suffixed extensions. It is also possible that the production of prefixed extensions continued long after the development of suffixed extensions.

What is clear is that suffixed extensions were the last building block of ʾAriba. Considering that the linguistic revolution represented by suffixed extensions appears to have been a means of satisfying the new communicative needs spurred by the advent of the agrarian era,[12] it is puzzling to contemplate the reasons why no new building blocks were developed to communicate efficiently new things and ideas during the last 5,000 or more years.

It appears that agrarian and trade eras gave new powers to previously marginal tribes that controlled most of the agricultural land and trade routes across

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[riḫūtu šaḫî]: semen of pig; [riḫût X]: progeny of X, the offspring of X, the lineage of X, the descendants of X, the posterity of X; [riḫût Šakan]: progeny of Šakan (= wild beasts); [riḫût Šulpaea]: progeny of Šulpaea (= epilepsy, an epileptic).

[12] Examples: *Qmḥ* "wheat", from **qm* "eat"; *saqa* "irrigate", from **sq*, *flḥ* "till", from **fl* (originally **pl* "to exclude" but should not be confused with **bl* "wet"); *ḥṣd* "harvest", from **ṣd*, *drs* "flail", from **dr*, *ḫbz* "to bake bread", from **bz* "rise, protrude".

Arabia, and the most important and convenient means to shift goods - i.e. camels.[13] Like a deluge, the new tribes surged forth and took over the power and properties of the ancient Arabian tribes, forcing many to flee to Egypt, Iraq, Syria and Lebanon. A dark age lasting some 2,000 years appears to have descended on Arabia with varying exceptions in Najd, Mecca and sections of the eastern and southern parts of the peninsula.

During the 8th and 9th centuries, attempts were made by certain linguists to develop a new pentalateral building block, but this was basically an artificial creation and a step too far, since Arabic does not appear to have original quadrilateral or four-radical words. Words assumed at the time to have four radicals are in fact nucleitic compounds made of two bilateral roots. In extant dictionaries, these constitute the largest block after suffixed extensions. They include *mrhm* (marham) - "ointment or a bitter type of ancient medicine"; *'rnb* (arnab) - "rabbit"; *nbrs* (nabras) - "lantern"; and *lwlb* (lawlab) - "a type of ancient water or wine faucet". More than 2,000 compounds are listed, three quarters of which may have been minted by unknown linguists of the 8th century or later, and claimed by some to have been an attempt at "swamping".[14]

Like their Assyrian counterparts some 2,800 years earlier, the 8th century linguists of Iraq and Persia had to make do with the stock of vocabulary available at the time. The Assyrians had to rely on lexical and grammatical extensions and a much more intensive exploitation of bilateral roots (note the 50 or so *'ḫ* extensions in Akkadian), whereas those dealing with Modern Arabic expanded the available stock of vocabulary with metaphors, similes, elaborate linguistic imagery and the invention of hundreds of words or variations of words produced by the faulty dotting of previously un-dotted vocabulary. For these and other reasons, as many as 4,000 entries in *Lisan Al-Arab* may have to be eliminated from any possible project to

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[13] A nucleitic compound: *gm* "many, a great deal", *ml* "fill, full", i.e., "the thing that can be filled with a great deal". Akkadian *gammalu* "a camel , a dromedary".

[14] A number of Arab writers have complained of severe "swamping" in many religious, historic and literary classical works, a phenomenon involving exhaustive verbosity and extensive duplication. A limited number of citations involving both classical poetry and prose appear to have been forgeries. The cases in which certain lexicographers accuse fellow lexicographers of confusing words and meanings are in the hundreds. However, some commentators have suggested that artificial production of hundreds of vague entries may have been prompted by the attempt to conceal the true origins of the language or cover mistakes due to faulty diacritical implementation especially in Kufa, Iraq.

compile a comprehensive etymological dictionary of Modern Arabic.

An extensive comparative study appears to confirm that neither ancient Assyrian linguists nor Muslim linguists many centuries later appear to have been aware of the true structures of Akkadian or Modern Arabic. With a uniquely natural language like the 'Ariba, linguistic expansion is naturally easy if linguists are aware of its basic structure. Unfortunately, this does not seem to have been the case.

Al-Kitab of Sibaweh is remarkable for its content but perhaps more so because the famous author managed to produce 2,000 pages without knowing the main components of the language he used. However, many of the features of Modern Arabic were recognised in Hebrew and Canaanite (Phoenician). Some writers (like Shidyaq) considered Phoenician a sister tongue of Arabic, while *Lisan al-Arab* suggested in *kan'* that the Canaanites were a nation speaking a language similar to Arabic.

Arab historians have no doubt about the origin of their language - 'Ariba, regarded by *Al-Azhari* and many others to be of superior standard. Arab historians and genealogists differ on the fate of 'Ariba but they are almost unanimous in calling their tongue *Arabic*. Assyrians and Babylonians should be considered among the 'Ariba but they do not seem to have recognised Arabic as a language like theirs by distinguishing it as *Arbītu*.

Where did 'Ariba itself come from?

Some interpreters and genealogists claim that God himself made it. Linguistically, it appears to have ancient pre-historic dual origins: the language of *'D/ 'Dd*, or *Od* (أد، أدد), and the language of *'D/'Dd* or *'Ad* (عد، عاد).[15] The latter is cited several times in the Quran (prefixed extension of *r'* - "too see"), in reference to both a man and a tribe or people. There seems to be no doubt that Yemen was home to both man and people. Surprisingly, there is no mention of *'D* in the Quran.

Like most "Semitic" languages, Akkadian contains both languages, but the stock of *'D* is much smaller in comparison to that of its Yemeni counterpart. Surprisingly, no reference to *'D* was noted in Akkadian, but *'D* pertain to God or God-like, by means of the power to hurl thunder (Akkadian: *'rigim Adad'*).

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[15] The Mahriah (Mehri/Amhari) of Yemen is traditionally claimed to be the original tongue of the people of 'Ad. It is described as one of the six Modern South Arabian unwritten languages, and related to the southern branch of the western Semitic family. See: Alfadly, Hassan Obeird, Abdulla, *The Morphology of Mehri Qishn Dialect in Yemen*, Universiti Sains Malaysia, 2007. (Here).

1.8 PROTO-"SEMITIC"

In modern Western literature, "Semitic" languages are not attributed to God but to an unknown origin with differing opinions on the original location at which a homogeneous language, known as Proto-"Semitic", was supposed to have developed. There are several Proto-"Semitic" word lists, but it is not clear why they are described as Proto-"Semitic" when many are suffixed specifier extensions ('*arṣ́* [**'ŗ**], *bayt* [***pt**], *may* [***m'**], etc.) - the last main construct of Semitic languages - or advanced prefixed specifier extensions such as *ḥalīb* (***lb**), *šalām* (**lm**), *śamš* (***ms** but more correctly ***mš**).

The fact that Akkadian and Modern Arabic contain all the main components of the two languages may indicate that a tribe or a group of tribes continued to live together or in relative proximity until their common language attained the type of maturity witnessed in Akkadian and Modern Arabic. This co-habitation appears to have continued until the decision to part ways was taken, either forcibly or voluntarily. The numbers of emigrants is unknown, but they appear to have been adequate to populate certain areas in Iraq, Syria and Egypt.

Akkadian is credited with a formidable communicative system but it is more "primitive" in its adherence to its biconsonantal roots than its Yemeni sister tongue, in which one finds on average more suffixed extensions per root than Akkadian.[16] A very limited number of dual nuclei and nucleitic compounds are available in Akkadian vocabulary compared with hundreds in Yemeni, making them a linguistic treasure trove for the students of toponymy, botany, physics, agriculture and early inventions as well as for the students of the history of civilisation in general.

Identifying "Proto-Semitic" could be useful but the question that needs to be answered is where did "Proto-Semitic" and, inclusively, all "Semitic" languages, come from?

Unless one wants to claim that daughters are the mothers of their mums, one may conclude that triconsonantals represent the last major linguistic development of Semitic languages. This does not exclude the possibility that a linguist may iden-

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[16] Whereas Arabic has special names for *'m* "uncle", *ḫāl* "maternal uncle", *jaddah* "grandmother", etc., Akkadian speakers resorted to compounds such as *aḫ abi* "uncle, father's brother", *aḫ ummi* "maternal uncle, mother's brother", *aḫ-abi* "a paternal uncle", *ab abi* "grandfather" *umm ummi* "grandmother", etc.

tify what he or she believes to be a triconsonantal root. However, proving conclusively that triconsonantal roots do exist is difficult.

This is because Arabic, Modern Arabic, Akkadian, Hebrew and others are not synthetic languages made of a collection of words, but languages constructed from linguistic units and clusters. If the nuclei of most three-radical words cannot be identified, an explanation may be found by probing a number of possibilities. The letters *ṯ, ḏ, ḍ* and *ẓ* are not identified in 'Ariba. Most of the words containing these letters were identified, sometimes in the same dictionary or in Akkadian, with the substituted original letter.[17] In a number of cases, words with these letters may have been inserted into dictionaries to provide credence for the same words present in important religious texts.

Other possibilities include the prevalent substitution of letters such as s/ṣ, t/ṭ, d/t and others. Attention should be paid to words originally containing *g* and *p*. They are expected to be migrated to *j* and *f*, but a number of other letters are used instead, including *k, q, and ġ* for *g* and *b* for *p*. In all cases, except for the obvious, dotted words should be treated with suspicion. Careful scrutiny uncovered many mistakes in some of the most respected Arabic texts, several created by writers considered "authorities" in their fields.

Additionally, identifying prefixed specifier extensions is vital for layered morphological examination. This unique structure is probably one of the most important reasons for the almost universal failure to originate trilaterals in their biconsonantal roots. Many roots are poorly treated in extant dictionaries and scores are altogether ignored, whereas prefixed extensions are given special attention due to their religious, moral and social importance. Along with Syrian and Palestinian dialects, prefixed extensions can help to achieve a better determination of the original meaning or meanings of roots, without which efforts to associate most extensions with their parents may fall short of the necessary level of the understanding needed to determine the range of meanings of relevant linguistic units and clusters.

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[17] Examples: *mṯl*: Arabic *msl*, Akkadian *mišil*; *ṯnein*: Akkadian *šinā* (originally with "s" from *sin* "tooth"), Arabic *tinnien* "dragon" (for its presumed two heads); *ḏkr: Akkadian zakāru*, *'ḫḏ*: Arabic *'ḫz*, Akkadian aḫāzu; *'rḍ* "earth", Akkadian *erṣutu*, *ẓfr* "nail, claw", *Arabic ṣfr*, Akkadian *ṣupru*, *ẓl* "shade", Akkadian *ṣillu*, etc. (Hundreds of other examples are provided in *the Origin of "Semitic" Languages*).

PART 2   BEYOND LINGUISTICS

2.1   HISTORICAL DEVELOPMENT

The historical development of the main building blocks of "Semitic" languages appears to be as follows:

1- Bilateral roots dominated by the hamza "'";

2- Monosyllabic root morphemes;

3- Dual Nuclei mainly constructed from monosyllabic morphemes, with the possibility that some may have been split to produce bilaterals. Yemeni *zqzq* - "chirp" and *ṣawṣaw*[18] (*ṣaw* is the root of the suffixed specifier extension *ṣawt - "sound"*) may be two of them;

4- Original Nucleitic compounds: proof of the ancient development of nucleitic compounds may be found in constructions used to produce names for camels (*gmml*), Damascus (Dmšq but probably *Dmšg* - the literal meaning remains the same), *Grhm* (Gerham, the name of a famous tribe known to have ruled Mecca), *Carmel* (grml) and others. Another possible proof is that the nature of the construction appears specifically aimed at spoken rather than written communication;

5- Prefixed specifier extensions: it should be assumed that the development of this construction continued during the later era of the suffixed extensions because it appears favoured by priests and poets, with both enjoying a renaissance some 5,000 or more years ago;

6- Suffixed specifier extensions.

With about 430 million speakers and more than one billion Muslims, Arabic stands alone among the major languages in its need for an etymological dictionary. It was pointed out that Modern Arabic, like all other "Semitic" languages, is a language of linguistic units and clusters not of vocabulary. The only viable compilation of a suitable dictionary can be achieved by building it on a modified alphabetical arrange-

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[18] Both *zqzq* and *ṣawṣaw* mean "chirp". The presence of a number of duplicate linguistic clusters appears to confirm the dual origination of the Ariba. Other examples include ✢'r ⇆r' and ✢kn⇆nk (both are concerned with sex, man/woman relationship and the family); ḥṣ⇆ṣḥ and ✢dʿ ⇆ʿd (arithmetic); ✢'l⇆l'⇆ (God). In Akkadian *ṣītu* "utterance", words from the mouth "appears to be a suffixed extension of *ṣaw.* Suffixed extensions of *zq* are several including: *zaqānu, zaqāru, zaqātu* and *zaqnu.* Both *'l (ilu, illilūtu) and *'l (elīu, elû) are used and so is *'r (erṣetu, erṣutu, urkat, warka, arḫu) and *nk (naiāktu, nakādu, niāku).

ment of clustered linguistic units. The fact that all extant dictionaries are built on word entries of various arrangements may explain the serious problems arising from dividing all linguistic units and the extensive disbursement of their prefixed and suffixed specifier extensions and nucleitic compounds under entries unrelated to their proper roots.

In the majority of cases, the successful completion of such a dictionary would be sufficient to serve as an etymological dictionary. Isolates and entries claimed to be of Persian or other origins should be thoroughly studied, as linguists of Persian origin do not appear to have been aware of the substantial Yemeni component of the language they treated, including linguistic units comprising *g* and *p* (both of which are in the Persian alphabet). They were also unaware of the outstanding structure of nucleitic compounds.

Compiling an etymological dictionary may seem an overwhelming task, but the number of linguistic units involved is surprisingly small. A preliminary list in the *Origin of "Semitic" Languages* contains 215 linguistic clusters, or 430 linguistic nuclei. Excluding unexpected surprises, the final list may be +/- 10% of the total at most. Reference to entries in Akkadian could be helpful for future students of both languages, as well as establishing a bridge between the oldest and the newest attested members of the Semitic languages.

Aside from the obvious failings, the works of several classical linguists and lexicographers should be admired. However, their heavy dependence on religious interpretations and poetry produces its own problems as both interpreters and poets do not appear to have sufficient knowledge of the basic blocks of the language. Linguistic nuclei, not poets and interpreters, are the most credible semantic reference. Absent the basic knowledge of the main parts of the language, a considerable part of what is offered in extant Arabic dictionaries is made of approximation, expansion, deduction and personal judgement.

2.2 ETYMOLOGICAL TRACING OF HISTORY

The linguistic nuclei stake a claim to much more than parentage to the languages of some of the greatest empires in history. Though deemed the oldest attested language, Assyrian's ancient age may be just a fraction of the age of its origin, which lies deep in pre-historic times. Like all other people before and after them, this na-

tion of what could be the first surviving tongue in today's world perished, but a chronicle of their history lives on in the small roots of the words they developed.

Careful examination appears to confirm that the cluster ✦dn⇆nd contains a record of the crossing of the Red Sea into Arabia in ancient times. *Dn - "close, near, approach" - is probably the description given to the Arabian side of the Red Sea when looking towards the horizon from the opposite side, or otherwise *nd - "counterpart, parallel". Some of the migrants seem to have perished during the crossing: ndb (nadab) - "lament, wail" - hence Bab Al-Mandab, the "lamenting gate". The loss appears to have caused ndm (nadam) - "regret". It is also possible that some of them regretted leaving their original home, or was disappointed at finding out that the new home did not meet their expectations.[19]

The cluster ✦bd⇆db appears to contain a similar record depicting a group arriving at a vast expanse of land that appeared to them for the first time: *bd "appeared" → bd' "beginning" → badiah "desert". These are the bedo "Bedouins", or "the people of the beginning". The root *bd has a number of extensions ending in hamza or a hamza converted to a, w or y, making it eligible for consideration as an invention of the earlier 'D people. The disciplined ✦bd⇆db is most probably a construction of 'D, or the Yemeni people: possibly the oldest warring nation on Earth.

Many place names are not significantly altered to obscure their original name. Such names seem to mean something. 'Dn "Eden" is a suffixed extension of 'D or the people of 'D. When considering the possibility that Eden is the Garden of Eden, one has to take into account that some parts of Yemen are not as barren as one might think. Albeit for a few months, the Indian monsoon converts a dry elevated area into what is described even today as "Paradise".[20] Confusion may arise when trying to locate the Garden of Eden in or around the city of Eden, whereas 'Dn is the home of 'D or the people or tribe of 'D, believed to have been Ahqaf in today's Hadramawt.[21]

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[19] *Dn is used in two well known nucleitic compounds: 'rdn "Jordan", literary "the near or low land", in reference to the Jordan Valley; Dn'l "Daniel", literary "the one who approaches or is close to God". Another famous nucleitic compound is Satan. Only the Arabic version of the name šayṭn reveals its origin. Literary it means "the thing (šay) that rings (ṭn) in the ear", in an attempt to explain the origin of "evil" thoughts or actions. Nucleitic compounds appear older than suffixed extensions, and it is possible that some like gammal (jammal) "camel" are more than 5,000 old.

[20] See the BBC's part II of Wild Arabia.
[21] Probably a nucleitic compound: ḥd, mṭ → ḥdr, mṭ "the extended slope".

The cluster ✣tm⇆mt is crucial in understanding the concept of death in ancientia. *Mawt* "death" is a suffixed extension of *mt* (originally *mt̤*) but it does not mean death as we know it. *Mt, literally, is "to extend". Death is not the end of life but the end of an extended line. Certain plants – when ingested - as well as scorpion stings are known to cause a deep coma, so it appears that it was not possible for ancient people to know whether the afflicted would recover, remain in this state permanently or rise again. This is one reason why ancient people did not bury their motionless loved ones. In another era, life and death were associated with breathing, as explained in the cluster ✣pn⇆np when converted to ✣fn⇆nf, and partly to ✣bn⇆nb. *Nfnf* (nafnaf) or "air" is a dual nucleus, whereas *nfs* "soul, a living person, breath" is a suffixed extension.

One may question the tendency to mix the meaning of the root with the meanings of their extenders. However, it should be understood that the range of meanings of the root appear to have many of the meanings separately specified in extensions at a later stage or a much later stage. In many cases, associating a prefixed specifier extension with its correct root depends on the determination of its root's associative properties. In a few cases, the reverse is true. For example *tm* is "achieved, completed, performed", but it was found to have the unusual number of six prefixed extenders: *ḥtm* "definite, inescapable, compulsory", *ḫtm* "completed, end, final", *ʿtm* "dark", *qtm* "gray, black", *ktm* "suppress, conceal" and *ytm* "orphaned". Only when the meanings of the extenders are carefully studied does it become possible to deduce that the word for death as we know it is *tm* not *mt*. Nevertheless, all these meanings fall within the range of meanings of the cluster ✣tm⇆mt.

The small roots of the ʿAriba and other "Semitic" languages may hold the keys to unlocking some of the greatest secrets of early humanity. They can reveal the origin of *ġnaʾ* "singing" as an emulation of the bleating of *ġnm* (ġnam) "sheep". These animals, domesticated some 8,000 years ago in Arabia, are also the origin of *ġnaʾ* "wealth" and *ġanima* "loot, booty".

The red lipstick of today is a synthetic material replacing a more ancient lipstick: *dm* "blood". *Adobe* (ṭuba) "brick" can be revealed as an extension of *ṭb* (ṭub) "turn over", an act performed when turning over clay moulds. *Kalb* "dog" is not a triconsonantal extension as is widely believed but the nucleitic compound *kllb*, lit-

erally "mind (lib) eater (kl)". This meaning may not make sense until it is realised that rabies can cause anxiety, confusion and hallucinations. It is as if mad dogs "eat" the mind of persons they bites. However, *rabbi* is an elevation of *rb* "bedouin chieftain, master", and should not be confused with *rp* (*rf) "flutter, shelf".[22]

As with many other clusters, Modern Arabic lexicographers confused ⊹*br⇆rb* with ⊹*pr⇆rp*. The meaning range of the former appears to be "the land, its owner and the people" as confirmed by *rbʿ* "clan, land, four". The meaning range of the latter is very curious since it appears to centre on distancing and elevation. The possible explanation is that the original concept was an image of a bird running away before flying. *Pr/*fr has more than 20 suffixed extensions specifying types of parting and distancing, including *frj* "cunt", from the action of "parting the legs". *Firjar* "drawing compass" is from the same root, so named because its two needles are parted before drawing. Soap, savon (Ar. ṣaboon) is from *ṣb* "to pour, set in a mould", and is a secondary of the primary *bṣ* "ember" and "see" in the Egyptian dialect, which is generally of Yemeni origin, hence the use by Egyptians of *g* not *j*, just like Yemenis.

Bṣr "seeing, vision" should make the association of *seeing* and *embers* clear. Also clear should be the association of embers, or fire, with soap making. Unlike most Yemeni clusters, ⊹*bṣ⇆ṣb* suffers from confusion, probably because lexicographers of Modern Arabic failed to realise that some of its words roughly describe the method of making soap, including burning wood to produce *alkali* → *ql* → *qli*. In today's usage, *qli* means, "to fry with oil", but originally it meant, "roasting" directly on a fire. In Akkadian *qalû* is "to roast; to burn; to refine (a metal); to roast (grain); to burn, set fire". Akkadian *qullītu* is "roasted grain". *Ql* also means "reduced, belittled, becomes smaller", a state to be expected due to shrinkage of burnt or roasted meat and certain other items.

2.3 INDICATIVE PRIMARY ROOTS

[22] Akkadian: *rabbûtu*: greatnsess , grandeur (of a god); *rabûtu*: greatness , grandeur, majesty, in addition to many other entries. *Talmīdu*: school boy, pupil, student, disciple. This is, probably, the origin of *Talmud* which appears to be a nucleitic compounds "tlmd": *md* "extended, lengthened"; *tl* "to follow one prayer with another or one (religious) study with another" (*Tll, Lisan Al-Arab*). *Torah* appears to be a "t" lexical extension of *warra* (ʾrʾa) "to show, to explain, to point out". The root is *rʾ* "see" with the known prefixed extension *ʾra* (ʾrʾ) "I see" and *qrʾ* "read". In dialect, *warrini* (Damascene *warjini*) is "show me, explain to me". *Nowrni* "enlighten me" has a similar meaning but its nucleus is *nr* → *nar* "fire" and *noor* "light". In both cases the origin of light is *fire*.

Students of anthropology, early human migrations out of Africa, the origins of languages and the impact of nature on the development of human knowledge and consciousness should probably concentrate on studying the relevant primary roots, for these appear to be the oldest linguistic inventions that remain in use today by speakers of "Semitic languages".

One may say that one linguistic eye of early human beings was set on their environment and the other on their own place in nature and the need to improve their chances of survival and living conditions, actions and activities recorded in secondary roots. Both are found in more than 200 clusters covering most of what was of importance in those distant times.

The linguistic needs of early human beings were limited. The number of things and cases they needed to communicate was relatively small, and the mental capacity to invent, repeat and process words and expressions was limited. This is evidenced in the collectiveness of the nouns they exchanged. For example, *ʾn was the collective name of all animals except predators which were called *bʿ, collectively identified by their droppings. In later times, distinction necessitated the development of specifiers. *Bʿ was suffixed to bʿr "dropping, dung", while predators were prefixed to sbʿ. As *bʿ came to mean, "sell", it could be suggested that sex was not the first traded commodity but rather animal dung, obviously for fire. Interestingly, bʿeer is "camel", so the best type of dung was probably that of camels. Also interesting is that some dialects have retained bʿbʿ (buʿbuʿ), a dual nuclei for "Boogie".

The time difference between the creation of primaries and secondaries is hard to estimate. In some cases, it could have been thousands of years, in others it could be tens of thousands of years. Contrary to traditional wisdom, thousands of years may lapse before the need arises to produce another root. What can be suggested is that the advent of the agrarian era enabled early societies to settle down after tens of thousands of years of foraging and moving from one location to another.

A record of the advent of the agrarian era appears to be contained in the cluster ⇆ḥd⇆dḥ, the result of which is evident in the prefixed specifier ndḥ "plentiful, expansion, protruding belly". Though the creation of some bilateral roots may have continued during the early agrarian era (for example ʿm ⇆mʿ), the presence of a

relatively large number of specifier extensions related to agriculture and trade may have been spurred by new times of plenty.

2.4 HUMAN CONSCIOUSNESS

There is sufficient etymological evidence to suggest that the development of language may have been a prime cause for the development of human consciousness. This will be one of the topics treated in the third and last part of the *Book of Origins*. The other is the origin of religion, a subject treated in several clusters. The origin of "Semitic" languages may be the greatest linguistic secret, while researching the origin of religion may unveil the true etymologically supported origin of spirituality and the oldest creeds of man.

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TABLES

Table 1- Linguistic Clusters: ✛ḥz⇆zḥ; ✛ḫz⇆zḫ; ✛zn⇆nz; ✛zh⇆hz

Linguistic unit	ḥz⇆zḥ		ḫz⇆zḫ		zn⇆nz		zh⇆hz	
Unit category	Original		Original		Original		Original	
Nuclei	*ḥz	*zḥ	*ḫz	*zḫ	*zn	*nz	*zh	*hz
Suffixed extensions	ḥza	zḥb	ḫza	zḫa	zna	nza	zha	hz'
	ḥz'	zḥḥ	ḫzb	zḫb	zn'	nz'	zhb	hzb
	ḥzz	zḥr	ḫzj	zḫḥ	znb	nzb	zhd	hzj
	ḥzb	zḥf	ḫzr	zḫr	znj	nzj	zhr	hzr
	ḥzd	zḥk	ḫzz	zḫf	znḥ	nzḥ	zhṭ	hzz
	ḥzr	zḥl	ḫz'	zḫm*ḫm	znḫ	nzr	zhf	hz'
	ḥzq	zḥm	ḫzf	zḫn	znd*nm	nzz	zhq	hzf
	ḥzk	zḥn	ḫzq		znr	nz'*z'	zhk	hzq
	ḥzl		ḫzl		znṭ	nzġ	zhl	hzl
	ḥzl		ḫzm		znq	nzf	zhm	hzm*zm
	ḥzm*zm*		ḫzn*zn		znk	nzq		hzn*zn
	ḥzn				znm	nzk		
					znn	nzl		
						nzh		
Prefixed extensions	lḥz	'zḥ	bḫz, wḫz	rzḫ?	'zn	ḥzn	mzh	nhz
Dual nuclei	ḥzḥz	zḥzḥ	ḫzḫz	zḫzḫ	—	—	zhzh	hzhz
Nucleitic compounds	ḥzbl	zḥzb	ḫzbr	zḫrṭ	znbr	—	zhdb	hzbr
	+ 6	+ 7	+ 10	+ 3	+ 10		+ 11	+ 11

* Indicates the trilateral is a prefixed extension of the superscripted root.
** Remaining nucleitic compounds extant in dictionaries but not listed in this table for space.
Please note that short vowels are not added to radicals. This should not represent an important problem since the first letter of most roots is vowelised by a short "a" and the second is silent. Meanings can be looked up in any standard dictionary.

Table 2- Lingusitic Clusters: ⊹zm⇆mz; ⊹kn⇆nk; ⊹bz⇆zb; ⊹rṣ⇆ṣr

Linguistic unit	zm⇆mz		kn⇆nk		bz⇆zb		rṣ⇆ṣr	
Unit category	Original		Original		Original		Original	
Nuclei	*zm	*mz	*kn	*nk	*bz	*zb	*rṣ	*ṣr
Suffixed extensions	zmt	mza	knb	nkʾ	bza	zbj?	rṣa	ṣrb
	zmj	mzj	knd	nkb	bzj?	zbd	rṣḥ?	ṣrḥ
	zmḥ	mjḫ	knr	nkt	bzḥ	zbr	rṣḫ*rḫ	ṣrḫ
	zmḫ	mzd	knz	nkḥ	bzr*zr	zbʿ	rṣd*ṣd	ṣrd
	zmr	mzr	kns	nkḫ	bzʿ	zbq	rṣʿ	ṣrṭ
	zm*mʿ	mzʿ*zʿ	knṣ	nkd	bzġ	zbl	rṣġ?	ṣr*rʿ
	zmq: zbq	mzġ*zġ	kn	nkr	bzq	zbn	rṣf	ṣrf
	zmk	mzq	knṣ	nkz	bzl		rṣqlzq	ṣrq
	zml	mzn	knš	nks	bzm*zm		rṣm*ṣm	ṣrmsrm
	zmn*mn	mzh: mzḥ	knʾ?	nkš	bzn*zm		rṣn	ṣry
	zmh		knf	nkṣ				
			knm	nkʿ				
			knh					
Prefixed extensions	ʾzm	jmz?	skn, mkn	ḫnk	ḫbz	ʾzb, qzb, nzb*nz/*zb	krṣ, trṣ, ḥrṣ	ḥṣr, ḫṣr
Dual nuclei	zmzm	mzmz	knkn	nknk	Bzbz	zbzb	rṣrṣ: rsrs	ṣrṣr
Nucleitic compounds (sample)	zmjr	—	knbl	—	bzmḥ	zbrj	—	ṣrdḫ

The primary *zm is popular in Akkadian with many lexical and grammatical extensions including: zamār taknê: a hymn of blandishment; zamar: quickly, hurriedly, immediately; zamar: quickly, soon, shortly; zamarānu: suddenly; zamarānu: suddenly, all of a sudden; zamariš: quickly; zamāru (1): (literary): a song, a poem, an epic, an ode , music (stringed or vocal); zamāru (2): G. to sing Gtn. to sing repeatedly ; to play an instrument repeatedly D. to sing about sth. / s.o. Š. to make sing, to teach to sing.

Extensions of the secondary *mz appears to include: (1) mazā ' u: G: to squeeze, to press, to compress, to press. The meaning links nicely to the meaning range of *zm "constrict, surround, press". (2): mazāqu: G. to suck D. to suck out Š. to make suck [akin to Arabic. mazāq "taste" which could apply to different types of food and drink"]. (3) mazraʾtu+: manor [a prefixed extension of *zr "seeds"]. (4) mazrūtu: basket; cultivation [a prefixed extension of *zr "seeds"]. (5) mazû: pressed; n. f. mazītu: cheap beer. (6) mazzassu, mazzāzu: a stand.

Note: A linguistic unit comprised of words of very different meanings like *zamar* "play the flute", mazāq "taste", mazû "press" and mazītu "cheap beer" may appear confused but it must be remembered that linguistic units and linguistic clusters are not concerned with what people use its words to denote but with the meaning range of the unit and cluster. Usually, the range consists of two main but related parts, one for each root. *Zm's range is "to press, constrict, surround". *Zammarah* "flute" is named so because the player presses his lips around the tip. *'Zmah* "crisis" is named so because it constricts the person in crisis.*Mz's original meaning range appears to be linked to making different types of wine (and beer in Akkadia); hence *mzj* "to mix" and *mzz* "bitter sweet". The fact that drinkers drink, or suck, from different containers enjoins the general meaning range of the unit.

Also, please note that many primaries do not appear to have secondaries in Akkadian. It is possible that available attested texts do not include such secondaries. It is also possible that the early speakers of Akkadian did not find it necessary to reverse primaries and produce secondaries as lexical extensions were found adequate for their communicative needs. There is also suspicion that Akkadian linguists were not aware of the original building blocks of their language.

Table 3 - Linguistic Clusters: ⊹pg⇆gp → ⊹bj⇆jb, ⊹fj⇆jf, ⊹fk⇆kf, ⊹fq⇆qf

Linguistic unit	bj⇆jb		fj⇆jf		fk⇆kf		fq⇆qf	
Unit category	*bg⇆gb* migration		*bg⇆gb* migration		*bg⇆gb* migration		*bg⇆gb* migration	
Nuclei*	*jf	*jb	*kf	*qf	*fj	*bj	*fk	*fq
Suffixed extensions	jfa jf' jff jft jfḫ — — jfr jfz jfs jfš jf' jfl jfn —	jby jb' jbb jbt jbj jbḥ jbḫ jbr jbz jbs jbš jb' jbl jbn jbh	kfy kf' kff — — kft kfḥ kfḫ — kfr — kfs — — — — kfl kfn kfh	qfa qf' qff — — — qfḥ qfḫ qfd qfr qfz qfs qfš qfṣ qfṭ qf' qfl qfn —	fja fj' fjj — — fjr fjz fjs fjš fj' fjl fjm fjn	bja — bjj bjḥ bjd bjr — bjs — — bjl bjm —	— — fkk — — fkr — — fk' fkl — fkn fkh	fqa fq' fqq fqḥ fqḫ fqd fqr fqs fqṣ fq' fql fqm — fqh
Dual nuclei	jfjf	jbjb	kfkf	qfqf	fjfj	bjbj	fkfk	fqfq

* Nuclei of migrated units are arranged in this table to assist in comparing primaries with primaries and secondaries with secondaries for systematicity of migration.

Akkadian: pagru: 1) (human) body, self / person; 2) (human) corpse, (animal) carcass. (2) gapāru: G. to be superior D. to overcome Dt. to contend; gapnu, gupnu; (*iṣ): tree.

The meaning range of this cluster is drought and some of its effects (poverty "fāgah", death, etc.,) as well as digging water holes for human consumption and irrigation, hence the numerous towns in many Arab countries named *Kfr* + or *Kfar* + from the water holes dug thousands of years ago.

Table 4 - Linguistic Clusters: ✛š'↹'š → ✛s'↹'s, ✛šġ↹ġš, ✛sġ↹ġs

Linguistic unit	š'↹'š		s'↹'s		šġ↹ġš		sġ↹ġs	
Unit category	Original		Old migration		Compatibility (Modern Arabic)		Compatibility (Modern Arabic)	
Nuclei*	*š'	*s'	*šġ	*sġ	*'š	*'s	*ġš	*ġs
Suffixed extensions	š'a	s'a	šġa	—	'ša	'sa	ġša	ġsa
	š'b	s'b	šġb	sġb	'šb	'sb	ġšb	ġsb
	š'ṯ	s't	šġr	sġd	'šd	'sj	—	—
	š'ḏ	s'd	šġz	—	—	'sd	—	—
	š'r	s'r	—	sġr	'šr	'sr	ġšr	ġsr
	š'ṣ	s's	šġš	sġs	'šz	'sṭ	—	ġsf
	š'f	s'ṭ	šġf	—	'šṭ	'sf	—	ġsq
	—	s'f	—	—	'šf	'sq	—	ġsk
	š'l	s'l	šġl	sġl	'šr	'sk	—	—
	š'm	—	šġm	sġm	'šq	—	—	—
	š'n	s'n	šġn	sġn	'šl	'sl	ġšm	ġsl
					'šm	'sm	ġšn	ġsm
					'šn	'sn		ġsn
Prefixed extensions	bš'	šs'	nšġ	tsġ	m'š	t's	bġš	bġs
Dual nuclei	š'š'	s's'	šġšġ	sġsġ	'š'š	's's	—	ġsġs
Nucleitic compounds	š'ṣb	s'br	šġzb	sġbl	'šrb	'sqb	ġšrb	ġslb

* Nuclei of migrated units are arranged in this table to assist in comparing original clusters with old migration and compatibles.

Examples of duplication taken from *Lisan Al-Arab*:
1- *'sm* "dry bread"; *'šm* "dry bread".
2- *ġšn* "water polluted by animal droppings" also cited as *'šn*.
3- *ġsk* is a variation of *'sq* "evening darkness".
4- *ġsm, ġšm* "dark".

The compatibility issue appears to be related to the textual *ġsq, ġšn, sġb, ġsl, šġf* and *šġl* produced, it seems, by faulty dotting or undotting.

Comment:

÷š'≒'š has a clear meaning range, the core of which is bird nests. Several extensions are derived directly from what primitive man observed while watching birds. From *'š* "nest", we have the suffixed extension *'šb* "grass" reflecting materials used for nest building. Meanings of *'šr* include "ten, clan, association", all related to the number of birds in nests and their interrelationship. *š , the secondary, is not simply a word but a concept of "dispersal", derived from the uneven construction of nests. It can apply to the dispersal of the Sun's rays as well as to the dispersal of people in all directions. Its extension *š'r* "hair" is a clear resemblance of grass and twigs used for building nests. š*'ūr* "feeling" appears to be derived from the sensation felt when, for example, an insect crawls over hair, and *'šq* "attachment, love" was borrowed from the care of birds for each other. *'š* and *'š'š* ('š'ūš) is slang for "cunt" in Arabic and Maltese, due to the relative similarity in the appearance of navels and nests. The prefixed extension of *š'* is *bš'* "ugly". Curiously, this concept was derived originally from the unusual untidiness of hair, but it later applied to all types of ugliness.

The meanings of ś, a migration from š', include "set out, seek out" which involves a certain disbursement. From it, we have *s'adah* "happiness", indicating that foraging for food, water and other things was considered a source of happiness.

Akkadian: *'š → 's: *esertu* "concubine"; *esēru* "to confine, to surround (figuratively like in a nest).

š': *šēlebu* "fox" (because it can seek out), Modern Arabic, *t'lib*, is a nucleitic compound, lit. *lb* (lib/lub) "clever", s' "seeker". Note that when š/s is replaced in Modern Arabic with *t* the building of the linguistic nucleus changes. This can apply to all extensions and may seriously destabilise both the linguistic unit and the cluster.

✛'ḥ⇆ḥ' (أحⴽ⇆أ✛)
ḥ "water, water hole", *ḥ'* "grove, a circular area"

Linguistic Cluster ✛'ḥ⇆ḥ'

Linguistic ⇆ Units

Primary root	Secondary root
'ḥ	ḥ'

Dual nuclei	Secondary		Dual nuclei	Primary
wḥwḥ	ḥ'		ḥ'ḥ'	'ḥ

'Ariba Arabic

'Ariba Arabic

Nucleitic Compounds	Prefixed Extensions		Nucleitic Compounds	Prefixed Extensions
unknown	b'ḥ		ḥawkal	jḥ'
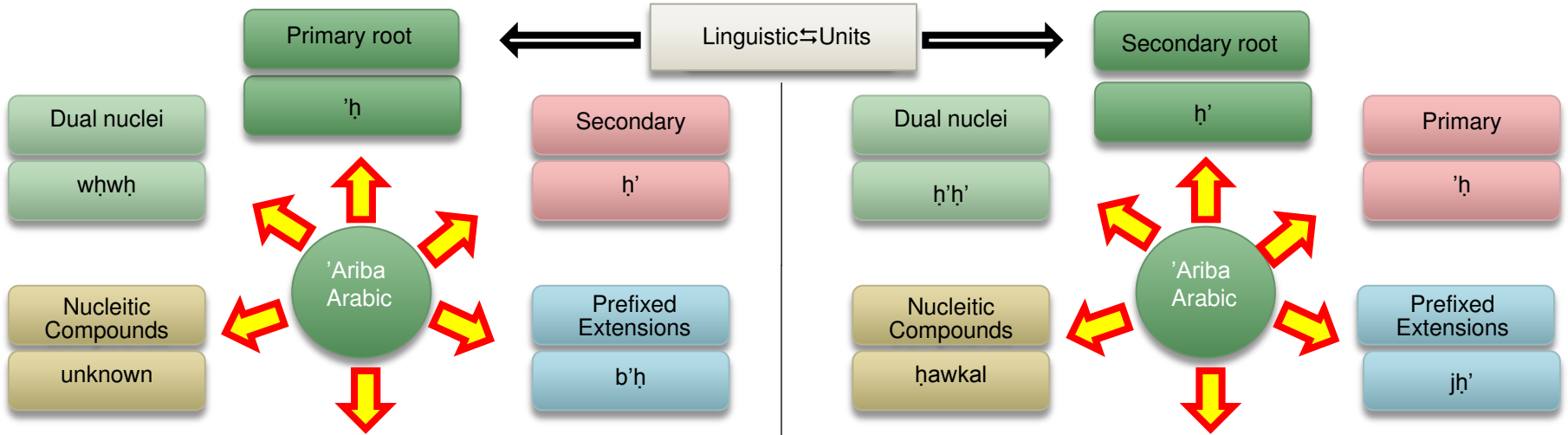
Suffixed Extensions

'ḥd*ḥd	أحد: من الثنائي حد
wḥd*ḥd	وحد: من الثنائي حد
wḥr	وحر: سحلاة تكون في الصحاري
wḥš	وحش: جواب البَر مما لا يَسْتأْنس
wḥf	وحف: العُشب الكثير
wḥl	وحل: الطين الرقيق
wḥm*ḥm	وحم: من الثنائي حم
wḥn	وحن: الطين المزلق
wḥy	وحي: إعلام في خفاء
w' ḥ (wāḥa) "oasis"	واحة: مستوطنة خصبية في الصحراء

Suffixed Extensions

ḥal	حال: مجال، حول: ما آحاط بالشيء
ḥwa	حوا: حُوّة الوادي: جانبه. وحَوّاءُ: زوج آدم؛ الحيَّةُ؛ الحوال: شيء بين اثنين
ḥawb	حوب: كل ذي رَحِم مُحَرَّم
ḥawt	حوت: والمحاوَتَة: المُراوَغَة
ḥawj*ḥj	حوج: حَوْتٌ: لغة في حَيْثُ
ḥawd	حوج: الحاجةُ: المأْرَبَةُ
ḥawz	حود: نُحاوِدُهُ أي نَعهَّدُه
ḥaws	حور: الرجوع عن الشيء وإليه
ḥawš	حوز: نَحَوَّز عنه ونَحيَّز إذا تَنَحَّى
ḥawḍ	حوس: من الثنائي حس
ḥawṭ	الحوش: بلادُ الجنّ وراءَ رَمْل يَبْرين
ḥrf*ḥr	الحَوْض: مُجتَمَعُ الماء
ḥawq	حوط: حاطَه وحِيطةٌ: حَفِظَهُ وتَعَهَّده
ḥawl	حوف: الحافةُ: الناحيةُ والجانبُ
ḥawm	الحَوْق: الاطار المحيد بالشيء المُستَدير
ḥawn	حول: الحَوْل: سَنةٌ بأَسرِها؛
ḥya	حوم: حَوْمَةُ كل شيء: معظمه
ḥyd	حون: من الثنائي حن
ḥyq	حيا: الحَياةُ: نقيض المَوت
ḥyn	حيد: ما شخص من نواحي الشيء
	حيق: ما حاق بالإنسان من مَكْر
	حين: الحِينُ: الدهرُ

(‡جع⇆عج) ‡j‘⇆j‘
j‘"hunger", *j*"dust storm"

Linguistic Cluster ‡j‘⇆j‘

Linguistic⇆Units

Primary root		Secondary root

‘j → j‘

Dual nuclei	Secondary	Dual nuclei	Primary

‘j‘j → Secondary j‘ → j‘j‘ → Primary ‘j

'Ariba Arabic

Nucleitic Compounds	Prefixed Extensions	Nucleitic Compounds	Prefixed Extensions

‘jram → b‘j → j‘ms → wj‘
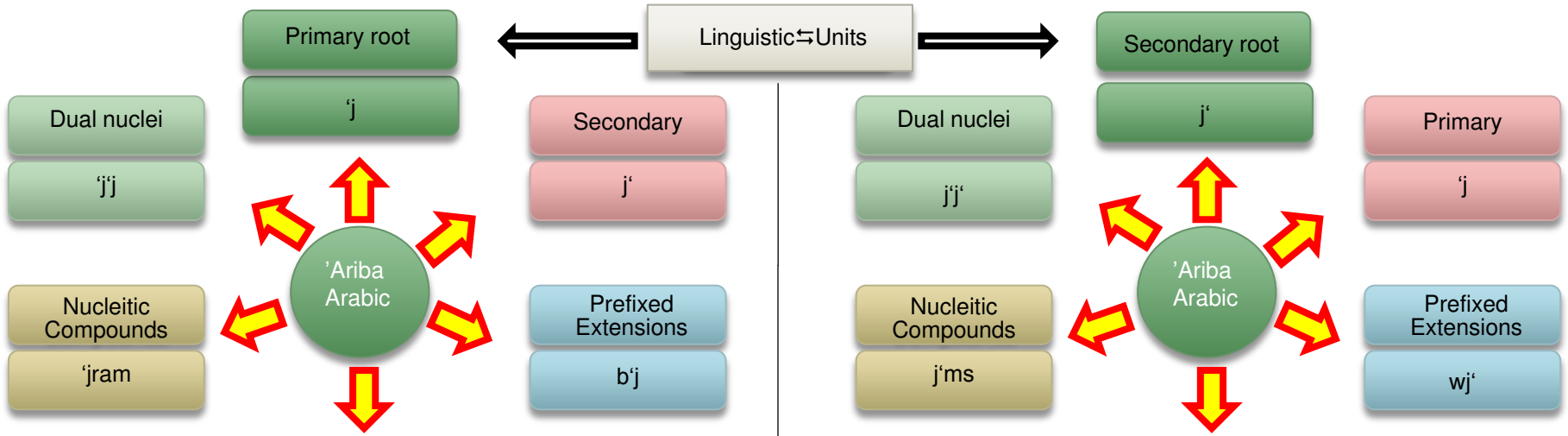
Suffixed Extensions

‘j	عجأ: تأخير الرضاع لشدة
‘jb	عجب: العجيب: الغريب
‘jj	عجج: ضج بالصياح، استغاث
‘jd	عجد: حب العنب أو الزبيب
‘jr	عجر: انتفاخ البطن، ثمر لم يثمر
‘jz	عجز: ضعف لكبر، صعبُ فعله
‘js	عجس: تباطأ وتأخر. كأنها عجز
‘jf	عجف: أقل بالطعام ليشبع غيره
‘jl	عجل: أسرع واستحث
‘jm	عجم: امتحنه واختبره
‘jn	عجن: عرك الطحين بالماء

Suffixed Extensions

j‘b	جعب: قلَبَه، صرعه
j‘d	جعد: تجعّد: تقبّض، بخل
j‘r	جعر: ييس الطبيعة، صرخ
j‘s	جعس: اللئام، صغر الناس
*j‘ ẓ	جعظ: سيء الخلق، المتكبر
j‘f	جعف: قوت رديء، قلع الشجرة
j‘l	جعل: السابقة الثلاثية للثنائي 'عل'
j‘m	جعم: شدّة الجوع
j‘h	جعة: الجعة: نبيذ الشعير
j‘a	جعا: الجَعْوُ الطين

*Same like j‘s

⊹ḥṣ⇆ṣḥ （⊹حص⇆صح）
ḥṣ "pebbles", *ṣḥ* "correct, true"

Linguistic Cluster ⊹ḥṣ⇆ṣḥ

| Primary root | ← Linguistic⇆Units → | Secondary root |

ḥṣ ← → ṣḥ

| Dual nuclei | Secondary | Dual nuclei | Primary |
| ḥṣḥṣ | ṣḥ | ṣḥṣḥ | ḥṣ |

'Ariba Arabic

| Nucleitic Compounds | Prefixed Extensions | Nucleitic Compounds | Prefixed Extensions |
| ḥṣrm | fḥṣ | ṣḥṣḥ | ṣḥ |
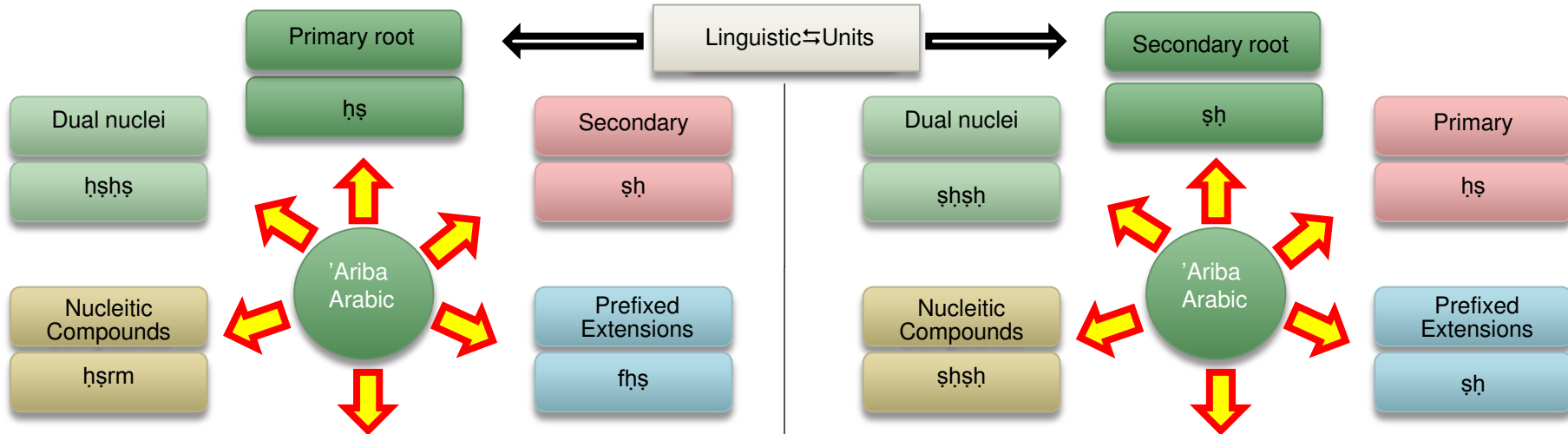
Suffixed Extensions

ḥṣ'	حصأ
ḥṣ	حصب
ḥṣd	حصد
ḥṣr	حصر
ḥṣṣ	حصص
ḥṣf	حصف
ḥṣl	حصل
'js	حصم
ḥṣm	حصن
ḥṣn	حصى
ḥṣa	

Suffixed Extensions

صحب	ṣḥb
صحح	ṣḥḥ
صحر	ṣḥr
صحف	ṣḥf
صحل	ṣḥl
صحم	ṣḥm
صحن	ṣḥn
صحا	ṣḥa

✢ḫp⇆pḫ → ✢ḫf⇆fḫ （✢خف⇆فخ）
pḫ "snake, trap", *ḫp* "fear, light in weight"

Akkadian: *ḫuppu* "a pit, a snake-hole"
Akkadian: *paḫû (peḫû)* "to close up, seal"

Linguistic Cluster ✢fḫ⇆ḫf

Linguistic⇆Units

Primary root

fḫ

Secondary root

ḫf

Dual nuclei

fḫfḫ

Secondary

ḫf

Dual nuclei

ḫfḫf

Primary

fḫ

'Ariba Arabic

'Ariba Arabic

Nucleitic Compounds

fḫdj

Prefixed Extensions

qfḫ, lfḫ

Nucleitic Compounds

ḫfḫl

Prefixed Extensions

sḫf
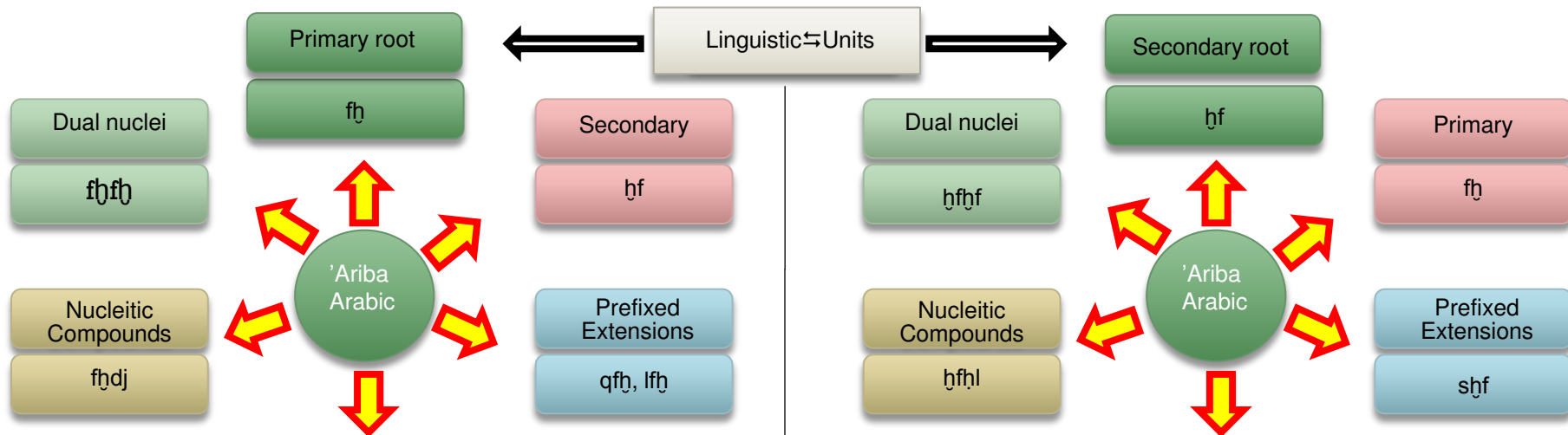
Suffixed Extensions

fḫ	فخ: الفَخُّ: المِصْيَدَة التي يصاد بها
Fḫt	فَخَتَ رأسَه بالسيف فَخْتاً: قَطَعَه
fḫj	الفَخَجُ: مبايَنة إحدى الفخذين
fḫd	فخذ: الفَخِذُ: وصل ما بين الساق
fḫr	فخر: نسيلة الثنائي خر
fḫz	فخز: لغة في فخر من الثنائي خر
fḫl	فخل: من الثنائي خل
fḫm	فَخُم الرجل فَخامة أي ضَخُم

Akkadian:
peḫû "to close up, seal"; *peḫû* "stone-deaf, closed, sealed, stupid".

ḫuppu "a basket / hamper, a crate"; "a guard / strap for holding on a lance (?)"; "a wickerworker"; "a socket, a hole, a pit, a cavity"; "in fileds: a snake-hole (?)".

Suffixed Extensions

ḫf'	خفأ: خَفأَ الرَّجُلَ خَفأً: صَرَعَه
ḫft	خفت: الضَّعْفُ من الجوع ونحوه
ḫfj	خَفِجَ إذا اشتكى ساقيه من التعب
ḫfd	خفد: أسرع في مشيه
ḫfr	خَفَرَ: أجار ومنع وأمَّن
ḫf '	خفع: ضَعُف من جُوع أو مَرَض
ḫfq	الخَفْقُ: اضْطِراب القلب وغيره
ḫfl	خفل: الخافِلُ الهارِبُ
ḫfn	الخَفْنُ: اسْتِرخاء البَطْن
ḫfa	خفا: خفا البَرْقُ: لَمَعَ

✣pr⇆rp → ✣fr⇆rf (ﻒﻜﻓﺭ✣)

fr "flew away", *rf* "flutter, shelf"

Akkadian: *parā ' u* "to sprout , to burst out"

Akkadian: *rāpu* "shelf"

Linguistic Cluster ✣pr⇆rp → ✣fr⇆rf

Linguistic⇆Units

Primary root

rf

Secondary root

fr

Dual nuclei

rfrf

Secondary

fr

Dual nuclei

frfr

Primary

rf

'Ariba Arabic

'Ariba Arabic

Nucleitic Compounds

rfhn, rfġn

Prefixed Extensions

zrf

Nucleitic Compounds

frqb, frqṣ

Prefixed Extensions

'fr
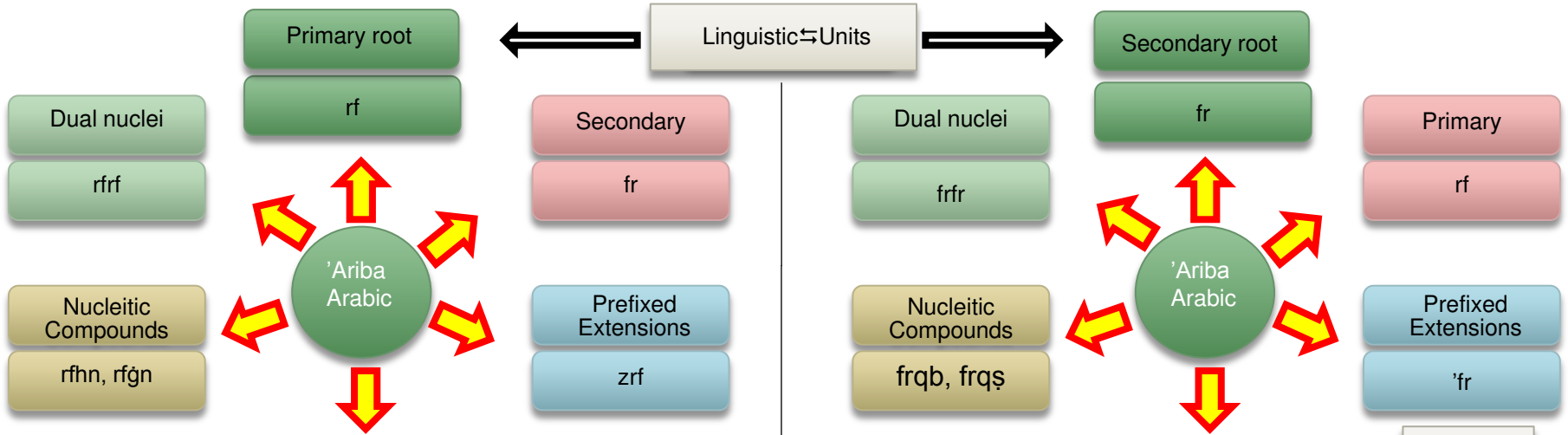
Suffixed Extensions

rf'	أرف	rfḏ	رفض
rft	تفر	rf'	رفع
rfj	جفر	rfġ	رفغ
rfḥ	رفح	rff	رفف
rfḫ	رفخ	rfq	رفق
rfd	رفد	rfl	رفل
rfz	رفز	rfm	رفم
rfs	رفس	rfn	رفن
rfš	رفش	rfh	رفه
rfṣ	رفص	rfa	رفا

Akkadian:
parāmu "to tear".
parāsu "to wean".
parāsu "to cut off; to select, pick out; to divide; to decide.
pardiš "horribly, dreadfully, very badly, atrociously".
pardu "afraid, fearful, scared, dismayed, disturbed, upset, timid, unadventurous, cowardly; (dream, omen): frightening, terrifying, scary, appalling, bloodcurdling, ghastly, grizzly / grisly, gruesome".

rāpu "a shelf".
rapādu "to run, roam".

Suffixed Extensions

fr'	فرأ	frḏ	فرض
frb	فرب	frṭ	فرط
frt	فرت	fr'	فرع
frj	فرج	frġ	فرغ
frḥ	فرح	frq	فرق
frḫ	فرخ	frk	فرك
frd	فرد	frm	فرم
frr	فرر	frn	فرن
frz	فرز	frn*rn	فره
frs	فرس	fra	فرا
frš	فرش		
frṣ	فرص		

فرنب، فربج
فرتج، فرزج
فرسخ، فرشخ
فرطح، فرقح
فركح،فرضخ
فرفخ، فرصد
فرقد، فرنــــد
فرهد، فردس
فرطس، فرقس
فرنس، فرطش
فرصص، فرشط
فرذع، فرقع
فرنق، فرتك
فرسك،فرحل
فرزل، فرعل
فرجم،فرزم
فرصم، فرصن
فرعن

35

✣zm⇆mz (زم⇆مز✣)

zm "tighten, strapped", *mz* "bitter sweet"

Linguistic Cluster ✣zm⇆mz

Linguistic⇆Units

Primary root — zm

Secondary root — mz

Dual nuclei	mzmz
Secondary	mz
Nucleitic Compounds	zmjr
Nucleitic Compounds	'zm, bzm

'Ariba Arabic

Dual nuclei	mzmz
Primary	zm
Nucleitic Compounds	unknown
Prefixed Extensions	rmz

'Ariba Arabic
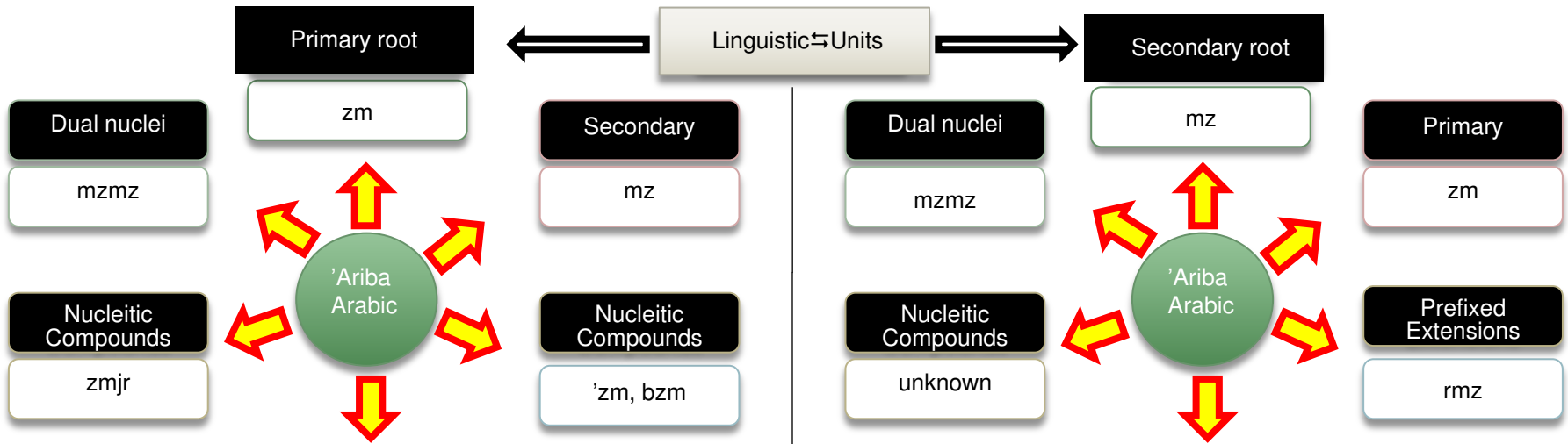
Suffixed Extensions

zmt	زمت
zmj	زمج
zmḥ	زمح
zmḫ	زمخ
zmr	زمر
zmq	زمق
zmk	زمك
zml	زمل

Akkadian:

mazāqu: to suck, to suck out.
mazāʾu: **G.** to press out, crush **D.** to rape (a woman) **N.** to be pressed out.
maziu : a metal vessel, a soup-pot.
mazû: pressed.
mazītu: cheap beer.

zamār taknê: a hymn of blandishment.
zamar: quickly, hurriedly, immediately.
zamarānu: suddenly, all of a sudden.
zamāru: a song, a poem, an epic, an ode, music (stringed or vocal), to sing repeatedly; to play an instrument repeatedly.
zambūru: thyme? (Another word for thyume is *ḫašānu*).
zāmiru: nightingale.
zammeru: singer, musician.
zammukku, *zammuku*: New Year.
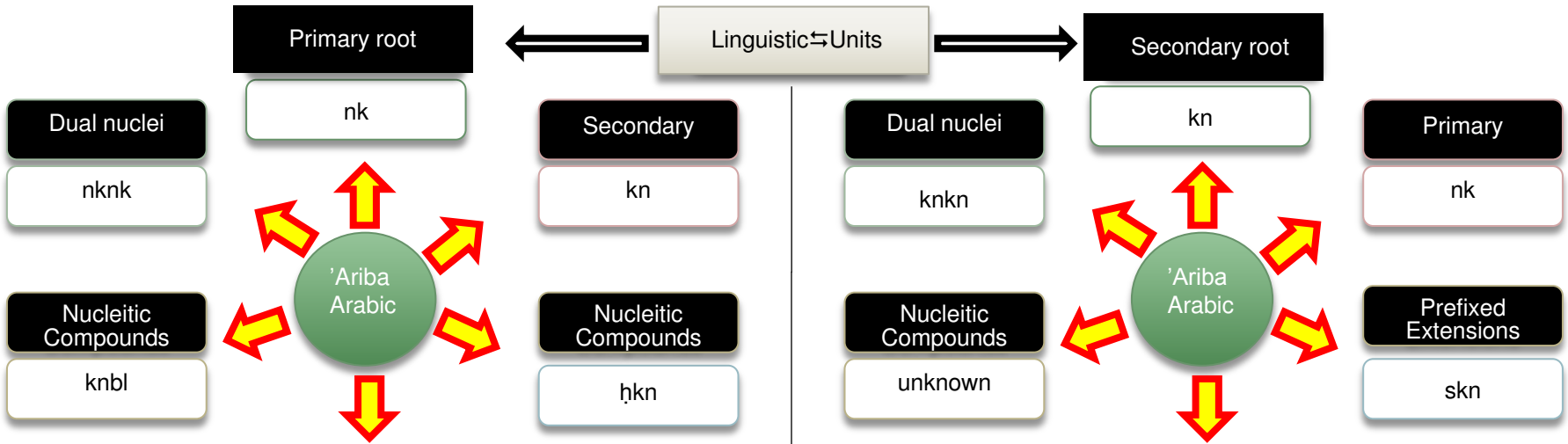*zamû*: outer corner, corner pillar, angle.

Suffixed Extensions

مزا	mza
منج	mzj
منح	mzḥ
مزد	mzd
مزر	mzr
منع ← زع	mz'
منغ	mzġ
مزق	mzq
مزن ← مزح	mzn

⌖kn⇆nk (⌖كن ⇆نك)

nk "have sex", *kn* "snuggle, quiet"

Linguistic Cluster ⌖kn⇆nk

Linguistic⇆Units

Primary root → nk

Secondary root → kn

Dual nuclei	Secondary	Dual nuclei	Primary
nknk	kn	knkn	nk

'Ariba Arabic

Nucleitic Compounds	Nucleitic Compounds	Nucleitic Compounds	Prefixed Extensions
knbl	ḥkn	unknown	skn

'Ariba Arabic

Suffixed Extensions

knb	كنب
knd	كند
knr	كنر
knz	كنز
kns	كنس
knš	كنش
knf	كنف
kna	كنى

Incomplete list

Akkadian:

nakādu: to beat (heart); to be disturbed.
nakālu: to betray.
nakāpu, *nakāsu*: to mutilate , to cripple
nakāru: to be foreign, enemy; to revolt against; to change, alter; to remove; to transfer.
nakdu: critical, earnest, serious.
nakīru: city, people, language, strange, foreigner, from another country.
niāku: to rape, to have sexual intercourse, to fornicate; [muruṣ nâki]: venereal disease; to sleep around; to permit intercourse.

kannu: binding, hair-band, binding attached to clothing, wrestler's loincloth, menstrual cloth.
kannû: to treat kindly, to accommodate.
kannušu: to gather, to collect.
kanšu: work-team.
kânu: to establish firmly, to permanently deposit tablets in a library, a boundary.
kânu: to be firm, fast; to prove.
kanūnu, *kaprīsu*: fireplace.
kanūnu: brazier, hearth.
kiānu: to be permanent; to confirm, establish, verify.
kinnanû: (synonym of): father.

Suffixed Extensions

نكأ	nk'
نكب	nkb
نكت	nkt
نكح	nkḥ
نكد	nkd
نكر	nkr
نكس	nks
نكش	nkš
نكل	nkl
نكى	nka

Incomplete list

✣bz⇆zb（بزⵆزب✣）

bz "emerge, seep out", *zb* "penis, flow"

Linguistic Cluster ✣zb⇆bz

Linguistic⇆Units

Primary root

bz

Secondary root

zb

Dual nuclei

bzbz

Secondary

zb

Dual nuclei

zbzb

Primary

bz

'Ariba Arabic

'Ariba Arabic

Nucleitic Compounds

bzmḫ

Nucleitic Compounds

ḫbz

Nucleitic Compounds

zbrj

Prefixed Extensions

'zb, qzb, nzb
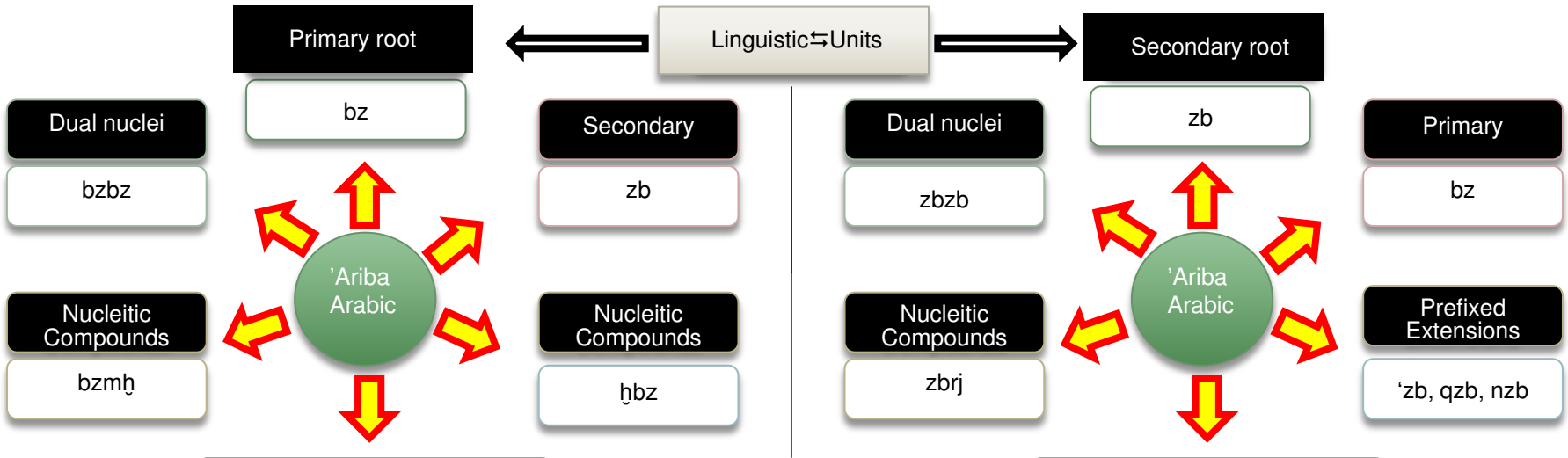
Suffixed Extensions

bza	بزا
bzj	بزج
bzḫ	بزخ
bzr	بزر
bz'	بزع
bzġ	بزغ
bzq	بزق
bzl	بزل

Incomplete list

Akkadian:
zabbīlu, *zabbilu*: a basket.
zabbilu: bearer.
zābil immeri: carrier of sheep.
zābil kudurri: basket carrier.
zabiltu: betrayal.
zâbu: *rivers;* to dissolve; to flow away (water, wax, blood, clay...); to dissolve; to make flow.
zāʾibu: *rivers* waterlogged soil; name of a river (Zāb).
zibbatu: tail.
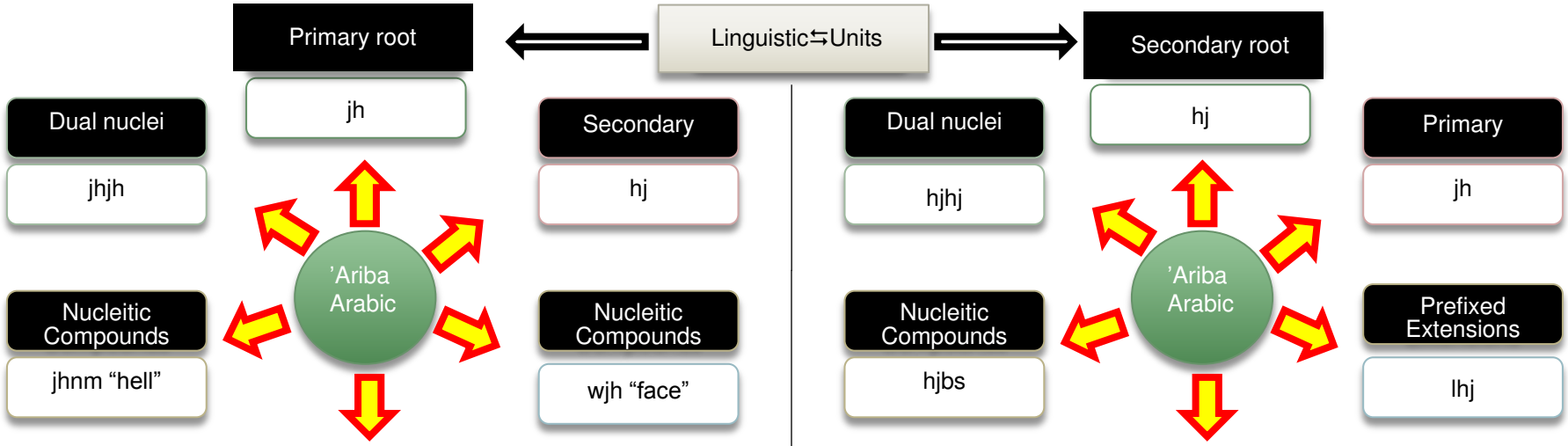*ziblu*: dung, manure, animal defecation / droppings.

Suffixed Extensions

zbd	زبد
zbr	زبر
zb'	زبع
zbq	زبق
zbl	زبل
zbn	زبن

✜gh⇆hg → jh⇆hj (✜جهـ⇆هج)

jh "came", *hj* "ran away, ran away in panic"

Linguistic Cluster ✜jh⇆hj

Linguistic⇆Units

Primary root	Secondary root
jh	hj

Dual nuclei	Secondary	Dual nuclei	Primary
jhjh	hj	hjhj	jh

'Ariba Arabic

Nucleitic Compounds	Nucleitic Compounds	Nucleitic Compounds	Prefixed Extensions
jhnm "hell"	wjh "face"	hjbs	lhj

'Ariba Arabic

Suffixed Extensions

jha	جها
jhf	جهب
jhd	جهد
jhr	جهر
jhz	جهز
jhš	جهش
jhl	جهل
jhn	جهن

Incomplete list

Suffixed Extensions

هجا	hja
هجأ	hj'
هجد	hjd
هجر	hjr
هجز	hjz
هجس	hjs
هجع	hj'
هجف	hjf
هجل	hjl
هجم	hjm

Incomplete list

bḥ "divulge, plenty", *ḥb* "fall in love, seeds, a fruit"

Linguistic Cluster ۞bḥ⇆ḥb

Linguistic⇆Units

Primary root		Secondary root
ḥb		bḥ

Dual nuclei	Secondary	Dual nuclei	Primary
ḥbḥb	bḥ	bḥbḥ	ḥb

'Ariba Arabic

Nucleitic Compounds	Nucleitic Compounds	Nucleitic Compounds	Prefixed Extensions
ḥbtr	ṣḥb	bḥtr	kbḥ

'Ariba Arabic
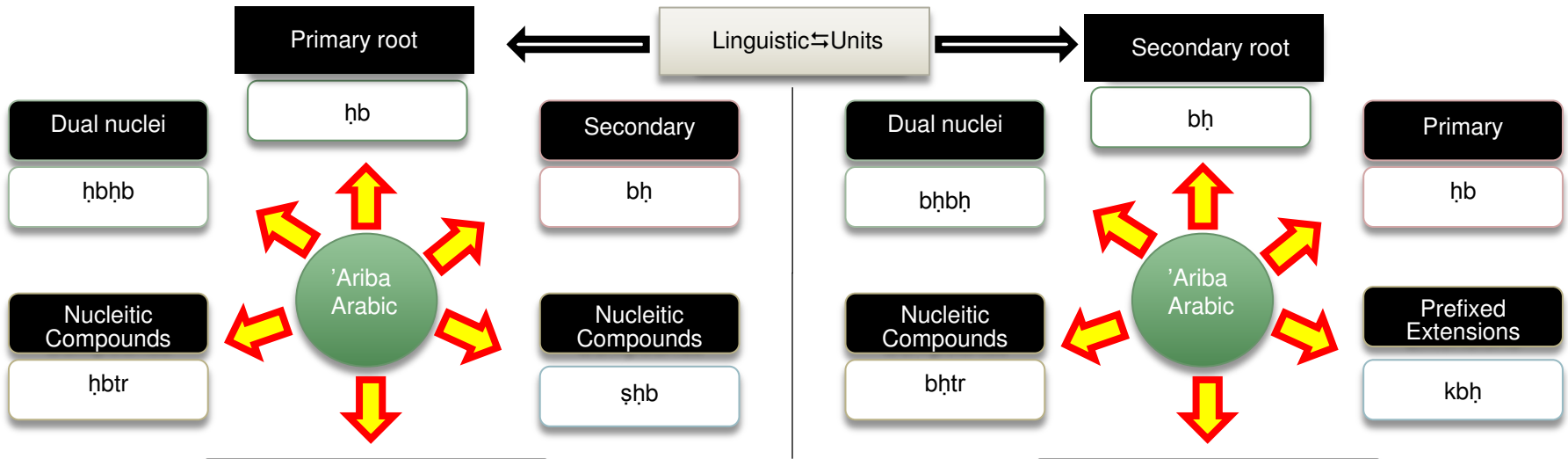
Suffixed Extensions

ḥba	حبا
ḥb'	حبأ
ḥbj	حبت
ḥbj	هبج
ḥbr	حبر
ḥbs	حبس
ḥbš	حبش
ḥbṭ	حبط
ḥbq	حبق
ḥbl	حبل

Incomplete list

In Akkadian: *ḫibu* means "beloved, sweet-heart, honey"; *ḫabābu* & *ra'āmu* mean "to make love, to chirp, to murmur, to twitter, to buzz, to hiss, to gurgle, to make love, to caress, to hum"; *ḫibti* means "beloved, sweetheart, honey, darling".
The equivalent words in modern Arabic, i.e. *ḥub*, *ḥabib*, *ḥabibi*, etc., are with *ḥ* not *ḫ.* This may indicate a possible migration from *ḫ* or the outcome of wrongly undotting the original *ḫ.*
It is also possible that the letter in Akkadian was written "ḫ" but pronounced "ḥ".

Suffixed Extensions

بحت	bḥt
بحث	bḥṯ
بحر	bḥr
بحل	bḥl
بحم	bḥm
بحن	bḥn
بوح	bawḥ

	ḥzⳆzḥ		ḫzⳆzḫ		znⳆnz		zhⳆhz		qnⳆnq		jnⳆnj	
Category	Original		Original		Original		Original		Original		Original	
Nuclei	*ḥz	*zḥ	*ḫz	*zḫ	zn	nz	zh	hz	qn	nq	jn	nj
Suffixed Ext.	ḥza ḥz' ḥzz ḥzb ḥzd ḥzr ḥzq ḥzk ḥzl ḥzl ḥzm *zm* ḥzn *zn*	zḥb zḥḥ zḥr zḥf zḥk zḥl zḥm zḥn	ḫza ḫzb ḫzj ḫzz ḫz' ḫzf ḫzq ḫzl ḫzm ḫzn	zḫa zḫb zḫḥ zḫr zḫf zḫm *ḫm* zḫn	zna zn' znb znj znḫ znḥ znd znr znṭ znq znk znm znn	nza nz' nzb nzj nzḫ nzr nz' nzġ nzf nz' nzq nzk nzl nzh	zha zhb zhd zhr zhṭ zhf zhq zhk zhl zhm	hz' hzb hzj hzr hzz hz' hzf hzq hzl hzm hzn	qna qn ' qnb qnt qnj qnḥ qnd qnr qnz qns qnṣ qnṭ qn' qnf qnm qnm	nqa nqf nqt nqṭ nqḥ nqḫ nqd nqḍ nqr nqz nqs nqš nqṣ nqḍ nqṭ	jn' jnb jnṯ jnḥ jnd jnz jns jnš jnṣ jnf jnq *nq* jnm jnn jnh jny	nja nj' njb njṯ njj njḫ njḏ njd njḏ *jd njrš njs nj' njf njl njl njh
Prefixed Ext.	lḥz	'ḥz	bḥz	rzḥ	'zn	ḥnz	mzh	nhz	tqn	'nq	ḫjn	snj
Dual Nuclei	ḥzḥz	zḥzḥ	ḫzḫz	zḫzḫ	–	–	zhzh	hzhz	qnqn	nqnq	jnjn	njnj
Nucleitic Com.	ḥzbl	zḥzb	ḫzbr	zḫrf	znbr	–	zhdb	hzbr	qnqn	nqnq	–	nj

Linguistic Clusters: ⊕ṣn⇆nṣ; ⊕ṣʿ⇆ʿṣ; ⊕rṣ⇆ṣr; ⊕dr⇆rd; ⊕gr⇆rg → ⊕jr⇆rj, ⊕kr⇆rk

	ṣn⇆nṣ		ṣʿ⇆ʿṣ		rṣ⇆ṣr		dr⇆rd		gr⇆rg → jr⇆rj		gr⇆rg → kr⇆rk	
Category	Original		Original		Original		Original		Migration		Migration	
Nuclei	*ṣn	*nṣ	*ṣʿ	*ʿṣ	rṣ	ṣr	dr	rd	jr	rj	kr	rk
Suffixed Ext.	ṣna	nṣa	ṣʿa	ʿṣa	rṣa	ṣrb	drʾ	rdʾ←	jra	rja	kra	rka
	ṣnb	nṣʾ?	ṣʿb	ʿṣb	rṣḫ?	ṣrḫ←	drb	rdb	jrʾ	rjʾ	krb	rkb
	ṣnt	nṣb	ṣʿt	ʿṣj	rṣḫ=	ṣrḫ←	drj	rdj	jrb	rjj	krt	rkk
	ṣnj	nṣṭ?	ṣʿd	ʿṣd	*rṣḫ*	ṣrṭ=	drd	rdḥ	jrṯ	rjḫ	krṯ	rkḫ
	ṣnḫ	nṣḫ←	ṣʿr	ʿṣr	rṣd←	*ṣrt*	drs	rdḫ←	jrj	rjḇ	krj	rkd
	ṣnd	nṣr	ṣʿṭ	ʿṣṣ	rṣʿ	ṣrʿ←	drš	rds←	jrḫ	rjd	krḫ?	rkz
	ṣnr	nṣṣ	ṣʿ"	ʿṣf	rṣġ?	ṣrf	drṣ	rdʿ	jrd	rjz	krḫ	rks
	ṣnʾ	nṣʾ	ṣʿf	ʿṣl	rṣf	ṣrq	drʿ	rdġ?	jrḏ	rjs	krd	rkʾ
	ṣnf	nṣf	ṣʿq	ʿṣm	rṣq=	ṣrm=	drq	rdf	jrr	rjʾ	krr	rkf
	ṣnq	nṣl	ṣʿl	ʿṣn	*lzq*	*srm*	drk	rdq	jrs	rjf	krz←	rkl
	ṣnn	nṣm=	ṣʿm		rṣm←	ṣry	drl	rdk?	jrš	rjl	krs←	rkm
		ṣnm	ṣʿn		rṣn		drm	rdm	jrṣ	rjm	krš←	rkn←
							drn?	rdn←	jrḍ	rjn	krṣ←	rkh
							drh	rdh	jrṭ	rjh	krḍ	
							dri	rdi←	jrʾ		krʾ←	
									jrf		krf	
									jrq		krk	
									jrl		krm←	
									jrm		krn←	
									jrn		krh←	
									jrh			
Prefixed Ext.	ḥṣn	šnṣ	mṣʿ	mʿṣ	krṣ	ḥṣr	jdr	mrd	ʾjr	ḥrj	ʾkr	ʾrk
Dual Nuclei	ṣnṣn	nṣnṣ	ṣʿṣʿ	ʿṣʿṣ	rṣrṣ	ṣrṣr	drdr	_	jrjr	rjrj	krkr	rkrk
Nucleitic Com.	ṣnbj	_	ṣʿrb	ʿṣlb	_	ṣrtḥ	drdb	rdʿl	jrhm	rjḫn	krnb	_

عجاج عاصفة رملية هائلة من مصر إلى جزيرة العرب

الحالات اللغوية

الثنائيات

جع ⬌ عج

(‡جع⊏عج) ‡ز'⊏'j‡

j' "hunger", *'j* "dust storm"

الأصل

ع	ج

جــــع

ضحايا مجاعة في الجزائر
١٨٦٩

القرينة

ع	ج

عـــج

السابقة الثلاثية	ب	ع	ج	بعج
الثنائي المضاعف	عج	عج	عج	عجعج
الثنائي المتوالف	عج	رم	عجرم
نسائل الثلاثي	عج	ا	عجأ
نسائل الثلاثي	عج	ب	عجب
نسائل الثلاثي	عج	د	عجد

السابقة الثلاثية	و	ج	ع	وجع
الثنائي المضاعف	جع	جع	جع	جعجع
الثنائي المتوالف	جع	مس	جعمس
نسائل الثلاثي	جع	ب	جعب
نسائل الثلاثي	جع	د	جعد
نسائل الثلاثي	جع	س	جعس

The state or theme of the linguistic cluster ‡j'⊏'j‡ is famine and hunger , its causes and the general impact of this recurring plight. It is clear from the meanings of the primary 'j that drought was the main cause of famines the advent of which coincided with dust storms. A number of other linguistic clusters concerned with famine confirm that most famines occurred in winter. The background image is of southern Arabia and Egypt during a dust storm.

الحالات اللغوية

الثنائيات

حص ⟷ صح

 ḥṣ ṣ̌ḥ

الأصل

ص	ح
حـــص	

القرينة

ح	ص
صـــح	

	ف	ح	ص	فحص
السابقة الثلاثية	ف	ح	ص	فحص
الثنائي المضاعف	حص	حص	حصحص	
الثنائي المتوالف	حص	رم	حصرم	
نسائل الثلاثي	حص	ب	حصب	
نسائل الثلاثي	حص	د	حصد	
نسائل الثلاثي	حص	ن	حصن	

	ن	ص	ح	نصح
السابقة الثلاثية	ن	ص	ح	نصح
الثنائي المضاعف	صح	صح	صح	صحصح
الثنائي المتوالف	صح	-	لا يوجد	
نسائل الثلاثي	صح	ا	صحا	
نسائل الثلاثي	صح	ب	صحب	
نسائل الثلاثي	صح	ن	صحن	

The state or theme of the linguistic cluster *ḥṣ ṣ̌ḥ* is pebbles, particularly their use for calculation. It is one of two clusters concerned with calculation, the second of which is *ʿ d ṣ̌ d ʿ*. Analysis of a number of extensions of both clusters appears to indicate that *ḥṣ ṣ̌ḥ* was used in Southern Arabia while *ʿ d ṣ̌ d ʿ* was used in Northern Arabia or by people who lived in Southern Arabia before moving north.

The integration of linguistic clusters
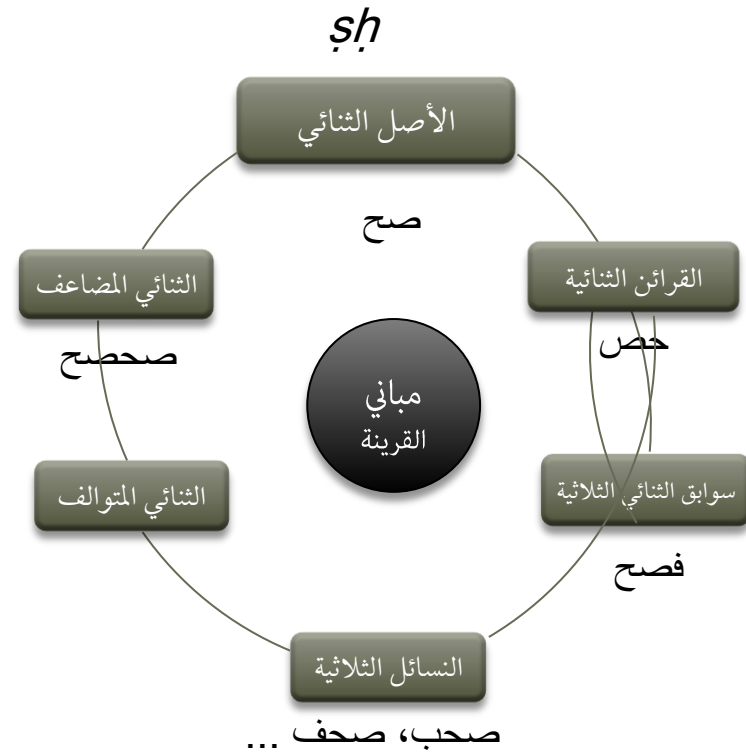
ṣḥ

الأصل الثنائي

صح

القرائن الثنائية

الثنائي المضاعف

صحصح

مباني القرينة

حص

الثنائي المتوالف

سوابق الثنائي الثلاثية

فصح

النسائل الثلاثية

صحب، صحف ...
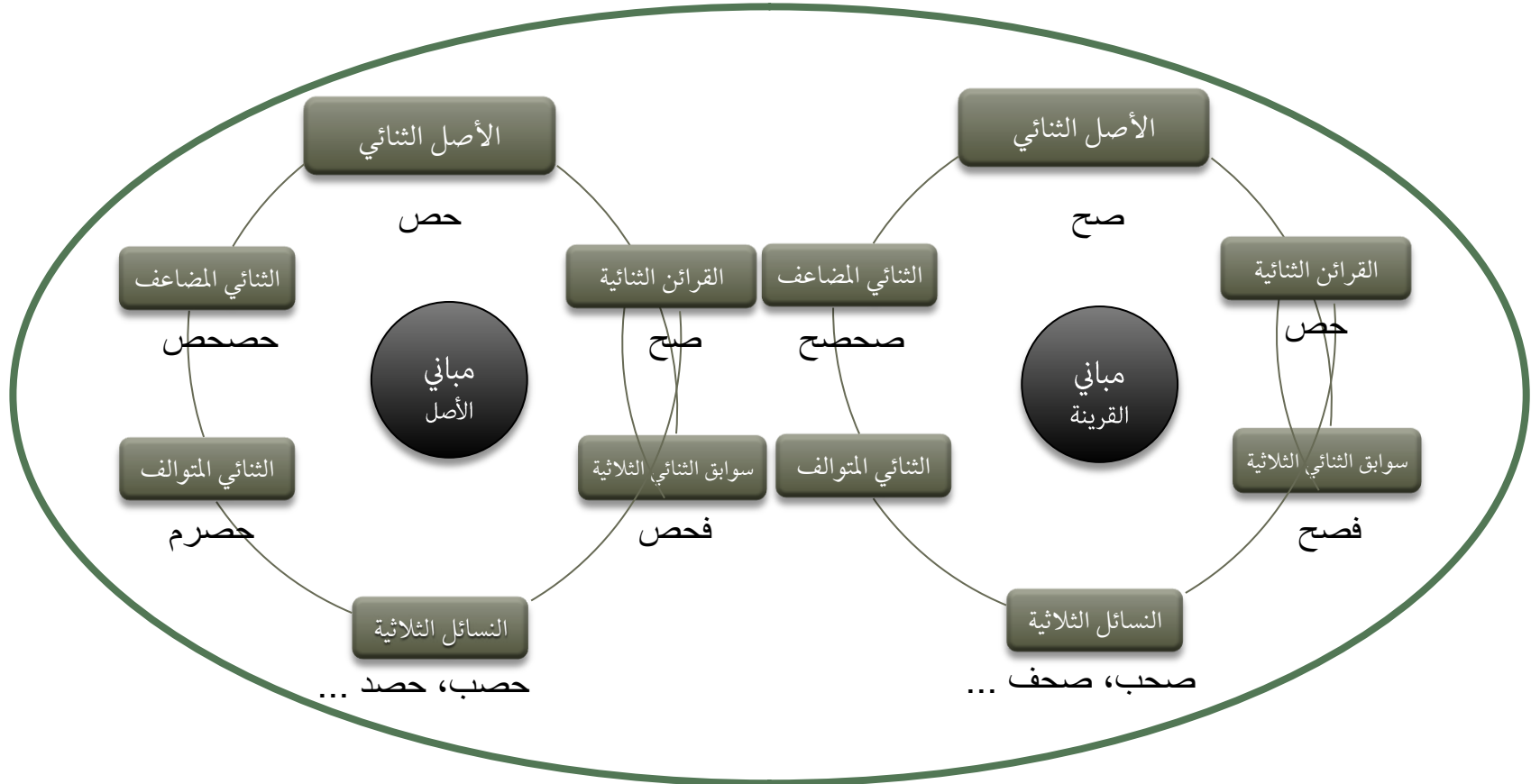
Primaries and secondaries of linguistic nuclei can be treated as separate units and both types can be roots for various extensions. The linguistic nucleus *ṣḥ* "correct" is considered a secondary because it is a human concept.

The integration of linguistic clusters
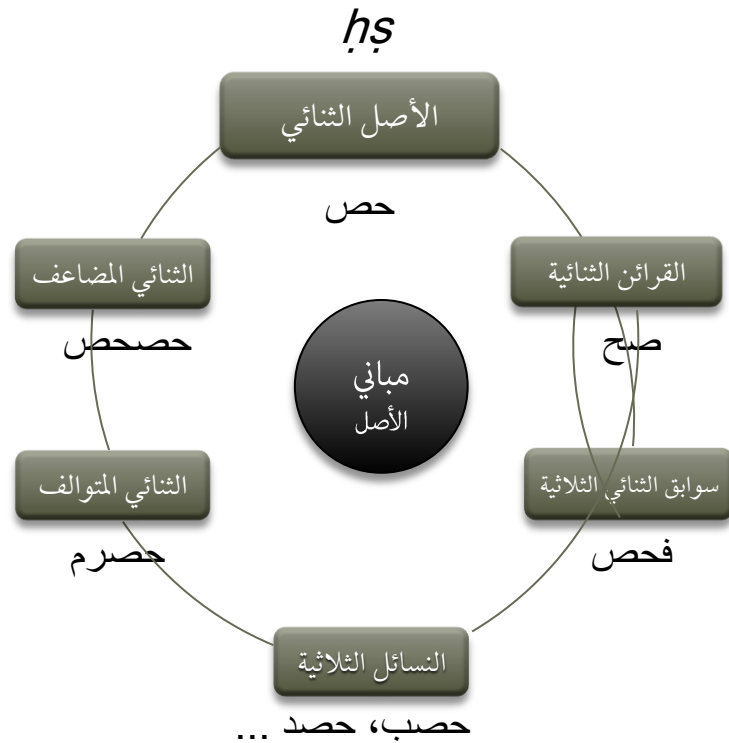
ḥṣ

الأصل الثنائي

حص

الثنائي المضاعف

حصحص

مباني الأصل

القرائن الثنائية

صح

الثنائي المتوالف

حصرم

سوابق الثنائي الثلاثية

فحص

النسائل الثلاثية

حصب، حصد ...

Primaries and secondaries of linguistic nuclei can be treated as separate units and both types can be roots for various extensions. The linguistic nucleus *ḥṣ* "pebbles" is considered a primary because it is a natural element found in the environment.

The integration of linguistic clusters
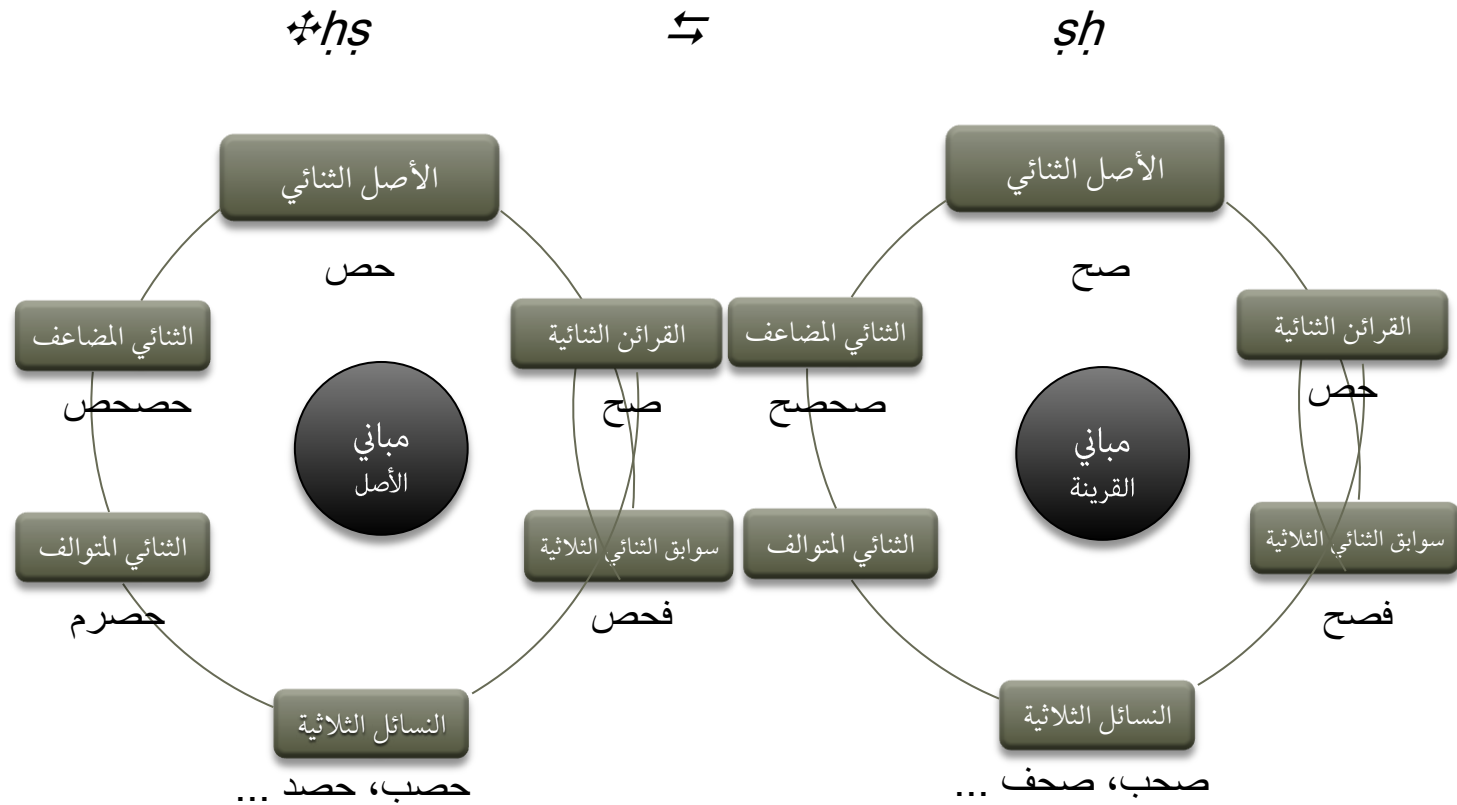
ṣ*ḥ*♱   ⇆   ṣḥ

الأصل الثنائي

حص

الثنائي المضاعف

حصحص

الثنائي المتوالف

حصرم

النسائل الثلاثية

حصب، حصد ...

القرائن الثنائية

صح

مباني
الأصل

سوابق الثنائي الثلاثية

فحص

الثنائي المضاعف

صحصح

الثنائي المتوالف

الأصل الثنائي

صح

القرائن الثنائية

حص

مباني
القرينة

سوابق الثنائي الثلاثية

فصح

النسائل الثلاثية

صحب، صحف ...

Primaries and secondaries of linguistic nuclei can be treated as separate units and both types can be roots for various extensions.

However, both primaries and secondaries are connected since a secondary is produced by reversing the primary root to be used as a new linguistic container for new meanings and extensions.

The integration of linguistic clusters

ḥṣ ⇄ ṣḥ

Primaries and secondaries of linguistic nuclei can be treated as separate units and both types can be roots for various extensions.

However, both primaries and secondaries are connected in a linguistic unit since a secondary is produced by reversing the primary root and used by speakers as a new linguistic container for new meanings and extensions.

Moreover, identifying a linguistic unit is essential for identifying a linguistic cluster and the state or theme represented by the cluster, such as sex, famine, calculation, building or many other themes.

SMALL WORDS AND SMALL NUMBERS

The first volume of the Book of Origins *Origin of the Arabic Numerals – A natural history of numbers* confirmed the ancient origin of the numerals we use today. Further research established a clear link between small numbers and small words and the ancient origin of the words expressing number values.

Below is what can be considered the most important chart in the history of Eastern Numerals:

THE FAMILY OF THE EASTERN ARABIC NUMERALS:
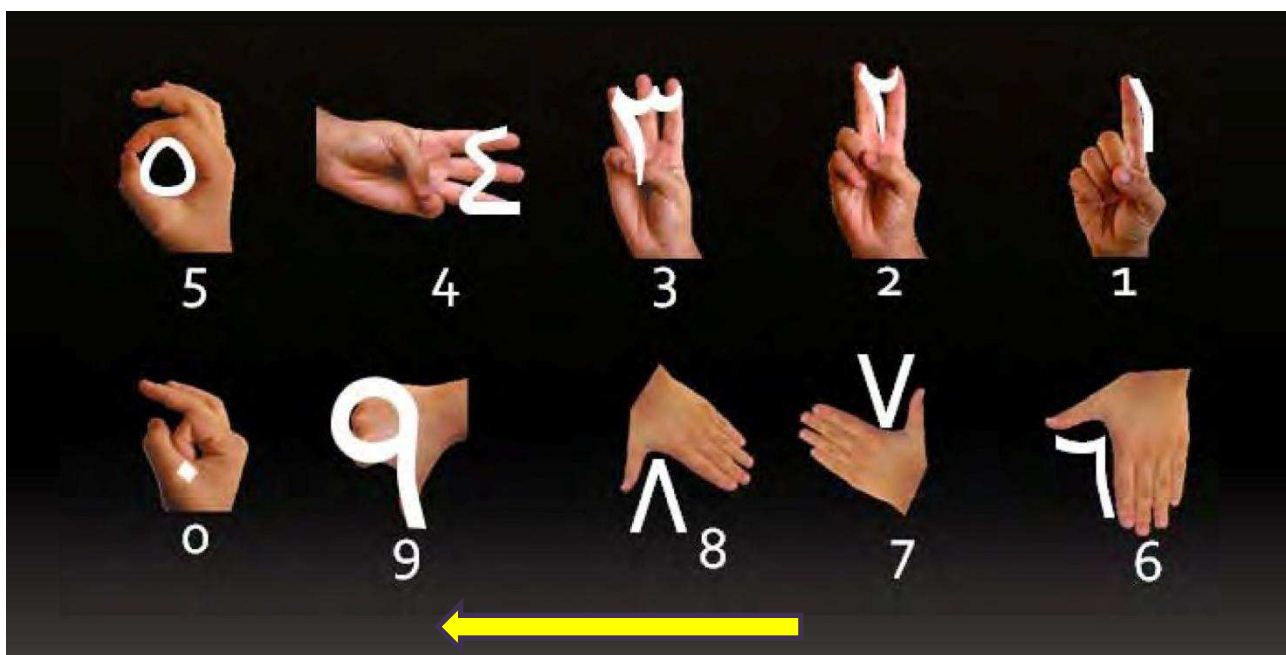
The Eastern Arabic numerals are hand and finger formations of the right hand, and remained so until the cipher was invented hundreds of thousands years later. To express the number ten and higher in the cipher system the hands and fingers of both hands were used.

Like the literary script, the numeral script of the Eastern Arabic numerals is right to left. When users of the Eastern numerals write down their numbers, they actually *draw* the hand and the finger formation of the specific number. It is like tracing the physical formations which appear to have remained largely unchanged since they were invented. .

THE FAMILY OF THE WESTERN ARABIC NUMERALS

The Roman numeral system was adequate for the limited needs of Europeans. However, with increased trade and wealth, an increasing number of Europeans needed a better numeration system that can be used to calculate complex loans and interest. Likewise, the increased demand for navigation instruments for ships sailing to the New World made the smaller Arabic mumbers more suited than Roman numerals.

Europeans used a left to right writing system, and Arabic numerals had to be adapted to suit the literary system..

Recent research uncovered Andalusian documents with both Eastern and Western numerals. Here is a sample from a 12th century Andalusian manuscript, with both Eastern and Western numerals lined right to left:
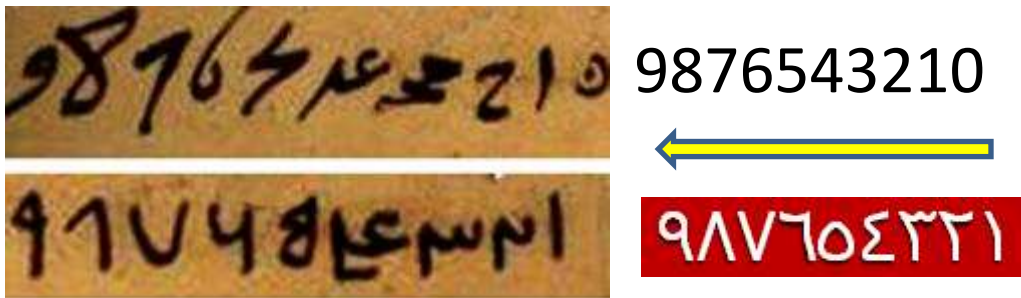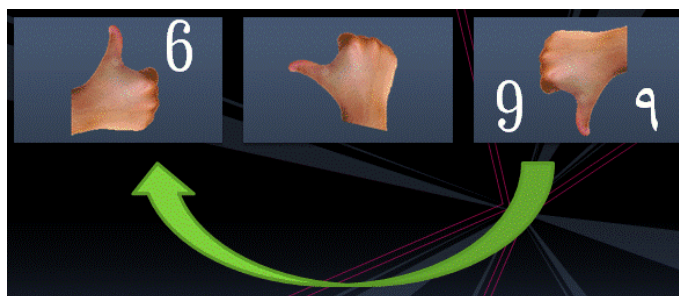

Three of the Western numerals are reproductions of their Eastern parents:.

Western Numerals	Action	Eastern Numerals
	No change	
	No change	
	No change	

Three more are produced by tilting the formations left:

| Western Numerals	Action	Eastern Numerals
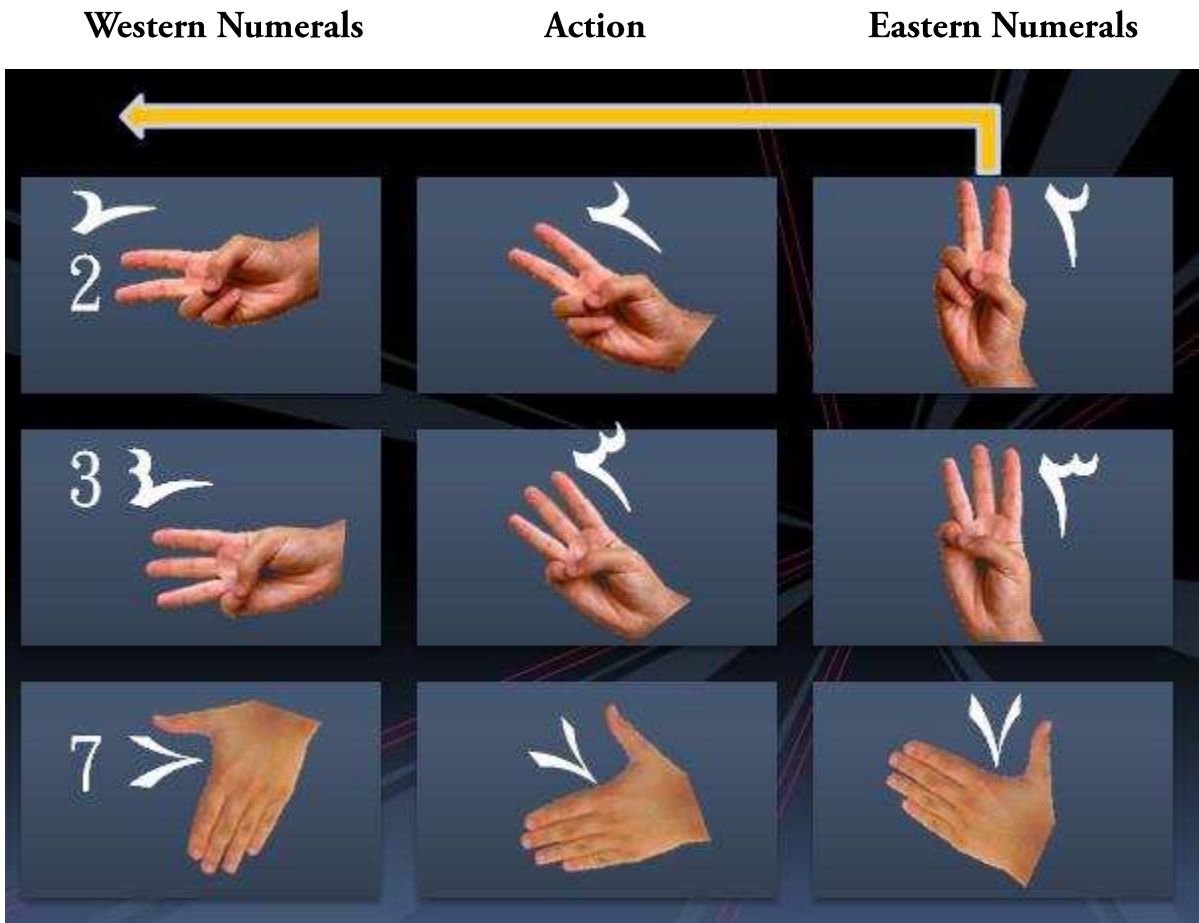
The seventh numeral was produced by reversing the shape upwards:

Numeral 8 is derived from two formations of numeral 5:

Numerals 4 and 5 are "corruption'' of the original Eastern numerals due, largely, to different reproductions in different manuscripts. Their history can be traced by examining the various available manuscripts:
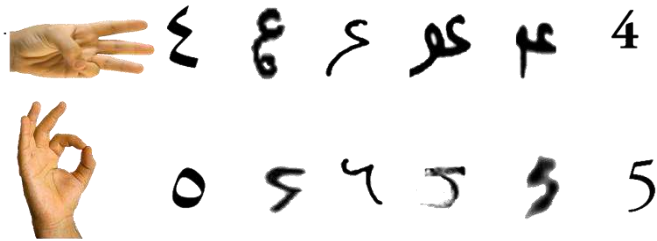
Here is what can be considered the most important chart in the history of Western Arabic Numberals: