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# THE ARABIC ORIGINS OF ENGLISH AND INDO-EUROPEAN "COLOUR AND ARTISTIC TERMS": A RADICAL LINGUISTIC THEORY APPROACH

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ABSTRACT: This paper investigates the Arabic origins or cognates of colour and artistic terms in English, German, French, Latin, Greek, and Sanskrit from a radical linguistic (or lexical root) theory perspective. The data consists of 125 terms like colour, hue, tinge, picture, paint, pigment, dye, ornate, art, black, white, illustrate, adorn, beautify, embellish, decorate, graph, diagramme, sculpt. All such words, the results show, have true Arabic cognates, with the same or similar forms and meanings. However, their different forms are all found to be due to natural and plausible causes and different courses of linguistic change. For example, English colour derives via Latin kolos from Arabic kalas(at) 'colour', turning /s/ into /r/; art comes via Latin ars from Arabic Soor(at) 'picture' via reversal and turning /S/ into /t/; white (wheat) and German weiss are derived from Arabic waDa2 'white, light, apparent', deleting /2/ and turning /D/ into /t/; pale comes via French from Latin palere 'to be pale' and Greek palaio 'old; ancient' from Arabic baali 'old, discoloured'; Consequently, the results indicate, contrary to Comparative Method and Family Tree-model claims, that Arabic, English, and all Indo-European languages belong to the same language, let alone the same family. They, therefore, prove the adequacy of the lexical root theory according to which Arabic, English, German, French, Latin, Greek, and Sanskrit are dialects of the same language with Arabic being their origin all because of its phonetic capacity or complexity and huge lexical variety and multiplicity with 489 colour terms according to one estimate. The sheer volume of such Arabic colour vocabulary compared to 11-32 English colour terms, for example, indicates that there is a radical language which has been preserved almost intact in Arabic without which it is impossible to interpret such lexical

**Keywords:** Colour and artistic terms, Arabic, English, German, French, Latin, Greek, Sanskrit, historical linguistics, lexical root theory, language change

# **INTRODUCTION**

The radical linguistic theory is a slightly revised and extended version of the lexical root theory (Jassem 2012a-f, 2013a-q, 2014a-i) which originally derives its name from the use of lexical (consonantal) roots or radicals in retracing genetic relationships between words in world languages. It first emerged as a rejection of the Comparative (Historical Linguistics) Method or Family Tree Model for classifying Arabic as a member of a different language family from English, German, French, and the so-called Indo-European languages in general (Bergs and Brinton 2012; Algeo 2010; Crystal 2010: 302; Yule 2006; Campbell 2004: 190-191; Crowley 1997: 22-25, 110-111; Pyles and Algeo 1993: 61-94). In all his thirty-two studies, Jassem (2012a-f, 2013a-q, 2014a-i) firmly established, on the contrary, the inextricably close, genetic relationship between Arabic and such languages phonetically, morphologically, grammatically, and semantically or lexically so much so that they can be really considered dialects of the same language, with Arabic being the source or parent language.

So far thirty-two studies have been conducted on all language levels. Lexically, nineteen studies successfully traced the Arabic origins of English, German, French, Latin, Greek and Sanskrit words in key semantic fields- namely, numeral words (Jassem 2012a), common religious terms (Jassem 2012b), water and sea terms (Jassem 2013d), air and fire terms (Jassem 2013e), celestial and terrestrial terms (Jassem 2013f), animal terms (Jassem (2013g), body part terms (Jassem 2013h), speech and writing terms (Jassem 2013i), time words (Jassem 2013j), family words (Jassem 2013k), cutting and breaking words (Jassem 2013m), movement and action words (Jassem 2013n), perceptual and sensual words (Jassem 2013o), cognitive and mental words (Jassem 2013p), love and sexual words (Jassem 2013q), wining and dining words (Jassem 2014a), divine and theological terms (Jassem 2014d), proper names (Jassem 2014f), and mathematical and computational terms (2014g). Morphologically, three studies established the Arabic origins of English, German, French, Latin, and Greek inflectional 'plural and gender' markers (Jassem 2012f), derivational morphemes (Jassem 2013a), and negative particles (Jassem 2013b). Grammatically, eight papers described the Arabic origins of English, German, French, Latin, Greek, and Sanskrit personal pronouns (Jassem 2012c, 2013l), Chinese pronouns (2014h), Finnish and Basque pronouns (Jassem 2014i), determiners (Jassem 2012d), verb 'to be' (Jassem 2012e), question and modal words (Jassem 2014b), and prepositions and conjunctions (Jassem 2014c). Phonetically, Jassem (2013c) outlined the English, German, French, Latin, and Greek cognates of Arabic back consonants: viz., the glottals, pharyngeals, uvulars, and velars; needless to say, the phonetic analysis recurred in each study above. Finally, on the applied linguistics level, Jassem (2014e) extended this approach to the field of translation studies, showing how cultural universals can be translated this way between Arabic and such languages. In a nutshell, in all such studies, Arabic, English, German, and French words, for example, were true cognates with similar or identical forms and meanings, whose differences are due to natural and plausible causes and diverse routes of linguistic change.

This paper examines the Arabic origins and/or cognates of colour and artistic terms in English and Indo-European languages. As a consequence, it advocates the postulation of a perfect, sudden Radical Language from which all human languages emanated in the first place, to which they can be traced, and which has survived into different forms in today's languages, with Arabic being the closest descendant. The remainder of the paper is organized into four sections: (ii) research methods, (iii) results, (iv) discussion, and (v) conclusion.

# 2. Research Methods

# 2.1 The Data

According to Wikipedia (2014), colours are classified into primary, secondary, and tertiary. Traditional primary colours include red, green or yellow, and blue. Secondary colors are violet/purple, orange, and green, resulting from combining and mixing primary colors in pigments and dyes. For example, mixing red and green light produces shades of yellow, orange, or brown. Tertiary colors are made by mixing primary and secondary colors: yellow-orange, red-orange, red-purple, blue-purple, blue-green, and yellow-green, which is why the hue is a two word name.

The exact number of colour terms vary in English. According to Berlin and Kaye (1969), quoted in www.thelandofcolor.com, English has 11 unambiguous colour terms: i.e., white, black, grey, yellow, red, blue, green, brown, pink, orange, purple. In www.htmlportal.net, the HTML 4.01 specification defines 16 named

basic colors: viz., white, yellow, fuchsia, red, silver, gray, olive, purple, maroon, aqua, lime, teal, green, blue, navy, and black. In www.colorlovers.com, 32+ common color names are listed, which are ivory, beige, wheat, tan, khaki, silver, gray, charcoal, navy blue, royal blue, medium blue, azure, cyan, aquamarine, teal, forest green, olive, chartreuse, lime, golden, goldenrod, coral, salmon, hot pink, fuchsia, puce, mauve, lavender, plum, indigo, maroon, crimson. Www.html-color-names.net listed 140 color names in HTML color chart, most of which are compound names containing adjectives like indigo, light (red, green), dark (red, green), and powder.

In Arabic, the story of colour is amazingly unparalleled in number, uniqueness, and degree of sophistication, being a lexicon on its own. Classical Arabic lexicographers like Altha3alibi (2012: 121-132) and Ibn Seedah (1996: 2/103-112; 4/95-96; 6/150-153; 7/102; 8/40) listed hundreds of colour terms in Arabic, each of which is a single, separate, independent word, not a combinations of words like light brown, very light brown, and so on in English. More precisely, every primary colour has ten or more shades, ranging from light or basic to heaviest or strongest, each of which is a separate word (with different variants sometimes) such as abiaD 'white', yaqaq 'very white', lahaq (lihaq, lahaaq) 'absolute white', laiyaa2, hijaan 'white', waabiS (wabbaS) 'bright', dilmiS (dilmaS, damaliS) 'bright white', barraaq 'shining white', habzari 'beautiful white', ablaj 'very clear white'. Similarly, black has different shades like aswad, 2alik, 2anik, 2ulkook, ghirbeeb, ghaddaaf, khadari, dajooji, ad3aj 'black for hair', jawn 'white, black, red'. Red has the same story as well. Moreover, these terms may vary for describing humans, animals, natural phenomena (e.g., rain, clouds), and utensils such as clothes and swords. In modern times, Ibrahim (1989) compiled a 303-page-long dictionary of Arabic colours, which contained 489 color terms in Arabic lexical and literary heritage, all of which are single, separate words, not word compounds of two or more.

# 2.2 Data Selection and Transcription

The data consists of 125 colour terms like *colour, hue, tinge, tan, tone, picture, paint, pigment, dye, ornate, art, black, blue, green, white, red, yellow, orange, illustrate, adorn, beautify, embellish, decorate, verdant, soot, mauve.* Their selection has been based on the author's knowledge of their frequency and use and English dictionaries and thesauri as well as internet sources in English such as www.wikipedia.org and various others, especially the references therein. To facilitate reference, they will be arranged alphabetically together with brief linguistic comments in (3.) below.

As for etymological data for English and Indo-European languages, all references are for Harper (2014); for Arabic, the meanings are for Ibn Manzoor (2013) in the main, Altha3alibi (2012: 121-132), Ibn Seedah (1996: 2/103-112; 4/95-96; 6/150-153; 7/102; 8/40), and Ibrahim (1989).

In transcribing the data, normal Romanized spelling is used for all languages for practical purposes. Nonetheless, certain symbols were used for unique Arabic sounds, including /2 & 3/ for the voiceless and voiced pharyngeal fricatives respectively, /kh & gh/ for the voiceless and voiced velar fricatives each, capital letters for the emphatic counterparts of plain consonants /t, d, dh, & s/, and /'/ for the glottal stop (Jassem 2013c).

The above *colour* and *artistic terms* can produce fully natural texts on their own in today's English, e.g.,

Albert: Art is colour: black, white, red, orange, yellow.

Robert: Colour is hue, pigment, dye or tan. Matthew: Pictures are beautifully ornamental. Augustine: Decoration is golden embellishment.

Every word in the above fully natural English text has a true Arabic cognate as will be shown in the analysis below.

# 2.3 Data Analysis

2.3.1 Theoretical Framework: The Radical Linguistic Theory

The Radical Linguistic Theory (Jassem 2014h-i), a slightly revised and more generalized version of the

original Lexical Root Theory (Jassem 2012a-f, 2013a-q, 2014a-g), will be used as the theoretical framework for data analysis. The lexical root theory (Jassem 2012a-f, 2013a-q, 2014a-i) was so called because of employing the lexical (consonantal) roots or radicals in examining genetic relationships, for instance, between Arabic, English, German, and French words such as the derivation of *observation* from *serve* (or simply *srv*) (see Jassem 2013o) and *description* (*subscription*, *prescription*, *inscription*) from *scribe* (*scrb*) (see Jassem 2013i, 2014e). The main reason for that is because the consonantal root carries and determines the basic meaning of the word irrespective of its affixation and vowels such as *observation* (*srv*). Historically speaking, classical and modern Arabic dictionaries (e.g., Ibn Manzoor 1974, 2013) used consonantal roots in listing lexical entries, a characteristically unique practice first founded by Alkhaleel, an 8<sup>th</sup> century Arabic linguist, lexicographer, musician, and mathematician (Jassem 2012e).

The Lexical Root Theory has a simple, straightforward structure, which consists of a theoretical principle or hypothesis and five practical procedures of analysis. The principle states that:

Arabic and English as well as the so-called Indo-European languages are not only genetically related but also are directly descended from one language, which may be Arabic in the end. In fact, it claims in its strongest version that they are all dialects of the same language, whose differences are due to natural and plausible causes and different courses of linguistic change.

In the Radical Linguistic Theory, the above principle has been slightly revised to read:

All human languages are genetically related, which eventually emanated from a single, perfect, sudden language which developed over time into countless human dialects and languages, that continue to become simpler and simpler. That original first language, which may be called Radical or Root Language, has not died out at all but has instead survived uninterruptedly into modern day languages to various degrees where some languages have preserved words and forms more than others. Perhaps Arabic, on spatial and temporal grounds, has preserved almost all of its features phonetically, morphologically, syntactically or grammatically, and semantically or lexically.

As to the five applied procedures of the Lexical Root Theory which have been used all along to empirically prove that principle in data collection and analysis, they remain the same: i.e., (a) methodological, (b) lexicological, (c) linguistic, (d) relational, and (e) comparative/historical. As all have been reasonably described in the above studies (Jassem 2012a-f, 2013a-q, 2014a-i), a brief summary will suffice here.

Firstly, the methodological procedure concerns data collection, selection, and statistical analysis. Apart from loan words, *all* language words, affixes, and phonemes are amenable to investigation, and *not only* the core vocabulary as is the common practice in the field (Crystal 2010; Pyles and Algeo 1993: 76-77; Crowley 1997: 88-90, 175-178). However, data selection is practically inevitable since no single study can accomplish that at one time, no matter how ambitious it might be. The most appropriate method for approaching that goal would be to use semantic fields such as the present and the above topics. Cumulative evidence from such findings will aid in formulating rules and laws of language change at a later stage (cf. Jassem 2012f, 2013a-f, 2013l). The statistical analysis employs the percentage formula (see 2.2 below).

Secondly, the lexicological procedure is the initial step in the analysis. Words are analyzed by (i) deleting affixes (e.g.,  $explained \rightarrow plain$ ), (ii) using primarily consonantal roots or radicals (e.g.,  $plain \rightarrow pln$ ), and (iii) search for correspondence in meaning on the basis of word etymologies and origins as a guide (e.g., Harper 2014), which should be used with discretion, though. The final outcome yields Arabic baien, baan (v) 'clear, plain' via /l/-insertion or split from /n/ (Jassem 2013i).

Thirdly, the linguistic procedure handles the analysis of the phonetic, morphological, grammatical and semantic structures and differences between words. The phonetic analysis examines sound changes within and across categories. More precisely, consonants may change their place and manner of articulation as well as voicing. At the level of place, bilabial consonants  $\leftrightarrow$  labio-dental  $\leftrightarrow$  dental  $\leftrightarrow$  alveolar  $\leftrightarrow$  palatal  $\leftrightarrow$  velar  $\leftrightarrow$  uvular  $\leftrightarrow$  pharyngeal  $\leftrightarrow$  glottal (where  $\leftrightarrow$  signals change in both directions); at the level of manner, stops  $\leftrightarrow$  fricatives  $\leftrightarrow$  affricates  $\leftrightarrow$  nasals  $\leftrightarrow$  laterals  $\leftrightarrow$  approximants; and at the level of voice, voiced consonants  $\leftrightarrow$  voiceless. For example, /t/ may naturally and/or plausibly turn into /d/ by voice, /s/ by manner,

/l/ by place and voice, /th & k/ by place and manner. The literature (Roach 2008; Campbell 2006; Jassem 2012a-f, 2013a-q, 2014a-i; Algeo 2010) is replete with examples.

In similar fashion, vowels change as well. Although the number of vowels differ greatly within and between English (Roach 2008; Celce-Mercia et al 2010) and Arabic (Jassem 2012g, 1987, 1993), all can be reduced to three basic long vowels /a: (aa), i: (ee), & u: (oo)/ (and their short versions besides the two diphthongs /ai (ay)/ and /au (aw)/ which are a kind of /i:/ and /u:/ respectively). They may change according to modifications in (i) tongue part (e.g., front  $\leftrightarrow$  centre  $\leftrightarrow$  back), (ii) tongue height (e.g., high  $\leftrightarrow$  mid  $\leftrightarrow$  low), (iii) length (e.g., long  $\leftrightarrow$  short), and (iv) lip shape (e.g., round  $\leftrightarrow$  unround). In fact, the vowels can be, more or less, treated like consonants where /i:/ is a kind of /j (y)/, /u:/ a kind of /w/, and /a:/ a kind of /h/ or vice versa. Their functions are mainly (i) phonetic such as linking consonants to each other in speech and (ii) grammatical like indicating tense, word class, and number (e.g., sing, sang, sung, song; man/men). Thus their semantic weight is marginal in significance, if not at all. For these reasons, vowels may be totally ignored in the analysis because the limited nature of the changes do not affect the final semantic result at all.

Sound changes result in natural and plausible processes like assimilation, dissimilation, deletion, merger, insertion, split, reordering, substitution, syllable loss, re-syllabification, consonant cluster reduction or creation and so on. In addition, sound change may operate in a multi-directional, cyclic, and lexically-diffuse or irregular manner (for detail, see Jassem 2012a-f, 2013c).

Regarding the morphological and grammatical analyses, some overlap obtains. The former examines the inflectional and derivational aspects of words in general (Jassem 2012f, 2013a-b); the latter handles grammatical classes, categories, and functions like determiners, pronouns, prepositions, question words, nouns, verbs, and case (Jassem 2012c-e, 2013l, 2014b-c). Since their influence on the basic meaning of the lexical root is marginal, inflectional and derivational morphemes may also be ignored altogether. As both morphological and grammatical features have already been dealt with in full, there may be no need to include them in every single case later.

As regards the semantic analysis, meaning relationships between words are examined, including lexical stability, multiplicity, convergence, divergence, shift, split, change, and variability. Stability means that word meanings have remained constant over time. Multiplicity denotes that words might have two or more meanings. Convergence means two or more formally and semantically similar Arabic words might have yielded the same cognate in English. Divergence signals that words became opposites or antonyms of one another. Shift indicates that words switched their sense within the same field. Lexical split means a word led to two different cognates. Change means a new meaning developed. Variability signals the presence of two or more variants for the same word (for detail, see Jassem 2012a-f).

Fourthly, the relational procedure accounts for the relationship between form and meaning from three angles: (i) formal and semantic similarity (e.g., three, third, tertiary and Arabic thalath 'three' (Damascus Arabic talaat (Jassem 2012a)), (ii) formal similarity and semantic difference (e.g., ship and sheep (Jassem 2012b), and (iii) formal difference and semantic similarity (e.g., quarter, quadrant, carat, cadre and Arabic qeeraaT 'a fourth; carat' (Jassem 2012a)). As in the morphological and syntactic or grammatical procedures, there is no need to tackle it in every single case for it will lead to undesirably lengthy treatments.

Finally, the comparative historical analysis compares every word in English in particular and German, French, Greek, Latin, and Sanskrit in general with its Arabic counterpart phonetically, morphologically, and semantically on the basis of its history and development in English (e.g., Harper 2014; Pyles and Algeo 1993) and Arabic (e.g., Ibn Manzour 2013; Altha3aalibi 2011; Ibn Seedah 1996) besides the author's knowledge of both Arabic as a first language and English as an equal second language. Discretion should be exercised here due to uncertainties and inaccuracies, especially in Harper's work, though.

To sum up, the most appropriate operational procedure in relating words to each other genetically would be to:

- (i) select a word, any word,
- (ii) identify the source language meaning (e.g., English, Latin, Greek) on the basis of especially word history or etymology. It is essential to begin with meanings, not sounds or sound laws; the former will lead you to the cognate naturally and automatically; the latter will get you lost definitely,

- (iii) search for the equivalent meaning in the target language (e.g., Arabic), looking for cognates: i.e., sister words with similar forms and meanings, and
- (iv) finally explain the differences in form and meaning between the cognates by following the above steps lexicologically, phonetically, morphologically, and semantically.

That is the whole story simply and truly. For example, *Augustine (Augusta, Augustan, Augustus)* all come from Latin *August* 'holy, sacred', English *Ghost*, and German *Geist*, which eventually derives from Arabic *qudus (alqudus)* '(the-) holy, sacred' via reordering and turning /l, q, & d/ into /u, g, & t/ (for detail, see Jassem 2014e-f).

# 2.4.2 Statistical Analysis

The percentage formula will be used for calculating the ratio of cognate words or shared vocabulary, which is obtained by dividing the number of cognates over the total number of investigated words multiplied by a 100. For example, suppose the total number of investigated words is 100, of which 90 are true cognates. The percentage of cognates is calculated thus:  $90/100 = 9 \times 100 = 90\%$ . Finally, the results are checked against Cowley's (1997: 173, 182) formula to determine whether such words belong to the same language or family (for a survey, see Jassem 2012a-b).

# 3. RESULTS

The main focus of the results will be on the Arabic lexical (consonantal) radicals or roots of English, German, French, Latin, Greek, and Sanskrit words. Therefore, affixes and vowels or their exact quality will be overlooked generally for having little or no semantic impact whatsoever on the final output.

- Adorn (adornment) via Latin adornare 'equip, provide, embellish' as a compound of (i) ad- 'to' from Arabic ta- 'verbal affix' (Jassem 2012f, 2013a, 2013l) via reordering and turning /t/ into /d/ and (ii) ornare 'prepare, furnish, adorn' from Arabic lawn, talween (n) 'colour; decoration'; /l/ turned into /r/ besides reordering. See ornate.
- **Amber** via Old French from Latin *ambar* from Arabic *3anbar* 'ambergris; white/yellow amber (musk)'; /3/omission, /n/-mutation into /m/, and lexical shift were effected.
- Aniline via Portuguese *anil* 'the indigo shrub' from Sanskrit *nili/nilah* 'indigo' from Arabic *neel, al-neel* (spoken /anneel/) 'dark blue, the-Nile', *neela(t)* 'dark blue colour/substance'; /l & n/ merged.
- **Aquamarine** is a compound of (i) Latin *aqua* 'water' from Arabic *siqaa'/suqia* 'water' via /s & q/-merger or *qu3aa3* 'salty water' via /3/-loss and (ii) **marine** below.
- Art (artistic) via Latin ars 'a work of art, a figure' from Arabic Soora(t) 'picture'; reordering and merging /S & t/applied (cf. are/art in Jassem 2012e).
- Ash (ashy colour) from Arabic 3ajj, 3ajaaj (pl.) 'ash, dust'; /3/ was lost and /j/ became /sh/ (Jassem 2013e).
- **Auburn** via Old French *auborne* from Latin *alburnus* 'off-white, whitish' from *albus* 'white' from Arabic *al-booS* 'the-white' or *al-beeD* 'the-white' via lexical shift and turning /D (S)/ into /s/; *burni* 'red/yellow (dates)'; or *aghbar(un)* 'grey, dusty' via reordering and /gh & r/-merger. See **brown**.
- **Azure** via Old French *azur/asur* from Arabic *azraq* 'blue' where /r & q/ merged; or 'aazar 'white' via lexical shift.
- **Beam** (beaming colours) from Arabic baheem 'pure white or black; black' via lexical shift and /h/-loss.
- **Beauty** (beautiful) via French from Latin bellitas, bellus 'handsome, pretty' from Arabic baiDa 'white, beautiful', turning /D/ into /I (t)/; or bahi(at), bahaa' (n) 'beautiful'; /h/ was dropped. See **embellish**.
- **Beige** via French for 'yellowish-gray, brownish-gray' from Old French *bege* 'the natural colour of wool and cotton; raw, not dyed' from Arabic *booSi* 'white; white sheep' where /S/ became /g/; *baayekh*, *baakh* (v) 'colourless; to lose colour', changing /kh/ into /g/; or *abqa3* 'white-spotted' via /3/-loss and turning /q/ into /g/. See **auburn**.
- **Black** (blacken) via Old English blæc 'black, ink; bright, shining, glittering, pale', Old High German blah 'black', Dutch blacken 'to burn', Greek phlegein 'burn, scorch' from Arabic balaq, ablaq 'a white in black or vice versa' or baraq/abraq 'light, shine; a white against black or vice versa', turning /q & r/ into /k & l/; or qalb '(heart) blackness' via reversal.

- In Old English, **swart** 'black' (German **schwartz**) derives from Arabic *aswad*, *sawaad* (n) 'black' via /r/-insertion and turning /(s &) d/ into /(sch &) t/.
- Blue (navy blue, royal blue, medium blue) via Old English blaw, German blau from Old French blo 'pale, pallid, wan, light-coloured, blonde, discoloured, blue, blue-gray' from Arabic baali 'old, discoloured' via lexical shift; bala2(i) 'of dates, white-to-green or red' via lexical shift and /2/-loss; mul2a(t) (n) 'extreme blue', mil2(i), amla2, maali2 (adj.) 'white, blue-to-black, black-to-white, nice, salty' where /m & 2/ became /b & Ø/; or ablaj 'white' via lexical shift and turning /j (y)/ into /w (u)/.
  - As to medium (mid, middle), it is from Arabic mata 'middle', turning /t/ into /d/ (Jassem 2014c, g); royal (royalty) obtains via French from Latin regalis 'regal, royal', rex 'king', regere (v) 'to rule, lead' from Arabic ra'ees, ra'as (v) 'head, chief; rule, lead', replacing /s/ by /l (g, ks)/.
- **Braid** via Old English *breidan* (*bregdan*) 'plait, knit, weave, twist together' from Arabic *rabaT* 'tie, twist' via reordering and turning /T/ into /d/; or *lab(b)ad* 'to weave' via reordering and turning /I/ into /r/.
- **Bright** (bright colour) via Old English bryht, beorht 'bright' and Old High German beraht from Arabic barq, barraq(at) 'bright, light'; /q/ became /gh/ (Jassem 2014f).
- **Brown** (brownie) via Old English and High German brun 'dark, dusky, bright, shining, German braun, borrowed into Latin brunus and French brun from Arabic billawr/bannoor 'shining; lit., glass' via reordering; burni 'of dates, red or yellow' via reordering; or bunni 'brown, coffee-coloured', turning /n/ into /r/ besides reordering (Jassem 2014f).
- Carpet via French from Latin carpita 'thick woolen cloth' from Arabic zaraabi(at) 'carpets'; /z/ became /k/.
- **Charcoal** is a compound of (i) *char* from Arabic *sha22ar*, *shi2waar* 'char, smoke' where /2 & sh/ merged into /ch/ and (ii) *coal* (*Kohle* in German) from Arabic *ku2l*, *ka2eel* 'black (substance)', dropping /2/.
- Charming (charming colours) via Old French from Latin carmen 'song verse, enchantment, religious formula', canere (v) 'sing' from Arabic ghanna 'sing', replacing /gh/ by /g/; rasm/raqm 'drawing/writing' via reordering and changing /s (q)/ to /ch/; or kareem 'charming, gentle, noble', turning /k/ into /ch/.
- **Chartreuse** (chart) via French for 'pale apple-green hue of the best type of liqueur' from Arabic khareeTa(t) 'lit., map'; /kh/ became /ch/.
- **Cherry** (*Cheryl*) via French *cherise* from Arabic *karaz*, *al-karaz* 'cherry, the-cherry'; /k & z/ merged into /ch/ (Jassem 2013c, 2014f).
- Clear (clarity) via French cler 'clear, bright, light' from Latin clarus 'clear, loud; bright, distinct' from Arabic jalee 'clear' where /j/ became /k/ and /r/ was inserted; or raaqi 'high, clear' via reordering, turning /q/ into /k/, and /l/-split from /r/; or qaraa2 'clear, pure' via /l/-split from /r/ and /2/-loss.
- **Colour** (colourant, discoloration) via Old French and Latin color 'skin colour; colour, hue, appearance' from Old Latin colos 'a covering' from Arabic kalaasa(t) 'colour', kils (n), kalas (v) 'colour; to cover with clay'; /s/became /r/.
- **Cool** (cool colours; cold, chill) via Old English c(i)ele 'cool, cold, chill' from Arabic qarr 'cold' where /q & r/became /k & l/; or jaleed 'ice, cold', turning /j/ into /k/ (Jassem 2013e-f).
- **Coral** (coral reef, colour) via Old French coral from Latin corallium and Greek korallion from Arabic jaral 'trees and stones; such a solid tough place' or jirial 'strong red wine; red dye', turning /j/ into /k/.
- Crayon via French 'pencil, chalk pencil' from craie 'chalk' from Latin creta 'chalk, pipe-clay' from Arabic 2awar, 2awwar(at) 'chalk, white dust or earth', turning /2/ into /k/.
- Create (creature, creation, creativity, creator; recreate, procreate) via Latin creatus, past participle of creare 'make, create, produce, beget' from Arabic Sawar, Soorat (n) 'create, make, fashion, illustrate'; /S/ became /k/.
- Crimson 'deep red' via Old Spanish *kermes* from Latin *cremesinus* 'the shield-louse insects from which a deep red dye was obtained' from Arabic *qurmuzi/qurmuzani* 'crimson' where /q/ became /k/ and /n/ was inserted'; *qaml(at)* 'lice' via reordering and turning /q, I, & t/ into /k, r, & s/; or *khamri* 'deep red; wine-coloured' via reordering and replacing /kh/ by /k/.
- **Cyan** (cyan blue) via Greek kyanos 'dark blue' from Arabic jawn 'white, black, black & red, pure red' where /j/ became /s/ coupled with lexical shift; or qain 'colour, beautification; black', passing /q/ into /s/).

- Dark (darken, darkness) from Arabic daakin 'dark' via reordering and turning /n/ into /r/; kudra(t)/kadar, kudri (adj.) 'dark' via reordering; khudra(t) 'heavy darkness, night' via reordering and replacing /kh/ by /k/; or khuDra(t), akhDar, khiDr 'green, dark' via reordering and changing /kh & D/ into /k & d/ (Jassem 2014h).
- **Decorate** (decoration, decor) via Latin decoratus (p.p.), decorare (v) 'decorate, adorn' from Arabic 2awwar, ta2weer(at) (n) 'to whiten; to paint in white'; /t & 2/ turned into /d & k/.
- **Deep** (deep colour) via Old English deop 'profound, awful, mysterious, serious' and German tief from Arabic or adheeb 'active; awful, fear; plentiful water', turning /dh/ into /d/; badee3 'wonderful, new' via reordering and /3/-loss; or daa'ib 'continuous, persistent'.
- **Design** from Arabic *Sana3, taSnee3* (n) 'make' via reordering and turning /t, S, & 3/ into /d, s, & g/ (Jassem 2013c, 2014g). See **sign**.
- **Diagramme** (grammar; -gramme; gramophone; aerogramme, programme, telegramme) via Latin grammatica and Greek grammatike, gramme 'writing, letter' from Arabic raqeem, tarqeem 'writing, number' (Jassem 2013i, 2014g). See **graph**.
- **Dim** (dimness; dim colour) via Old English dimm 'dark, gloomy, obscure' from Arabic dihaam/adham 'black, dark' via /h/-loss; qaatim 'dim' where /q & t/ merged into /d/; Damm 'of night, to darken'.
- **Dull** (dull colour) via Old English dol 'foolish' and German dul from Arabic daalih 'foolish, mindless and heartless' via /h/-loss; or *Dhil* 'shadow, shade' via lexical shift and turning /Dh/ into /d/.
- **Dye** via Old English *deah*, *deag* 'colour, hue, tinge' from Arabic *dawaa(t/h)* 'ink, dye' via /t/-loss and lexical shift; *dawaa'* 'medicine; dye' (cf. **diet** from Arabic *dawaa'*, 'adwiat (pl.) 'food' (Jassem 2014a); *da3j* 'of eyes, black' via lexical shift and merging /3 & j/ into /h (g)/ and later into /y/; or *Tilaa'*, *Tala* (v) 'paint, cover', turning /T/ into /d/ and merging /I & a/ into /y/).
- Egg from Arabic yaqaq 'pure white' via lexical shift and turning /q/ into /g/.
- Embellish (bene-, bonus) via French from Latin bellus 'handsome, beautiful' from Arabic baiDa 'white, beautiful (f.)' where /D/ became /l/; ba3l(at) 'careless woman, wife' via lexical shift and /3/-loss; balal 'young, nice, beautiful, healthy, rich, sweet, allowed, cool, bold/daring, wet'; baleeh/balha 'good-hearted, silly' via /h/-loss and lexical shift; malee2 beautiful, nice' where /m & 2/ turned into /b & Ø/. The meaning 'dress up' is from Arabic labas, malbas (n) 'to dress up, to wear' via reordering and turning /s/ into /sh/. See beauty.
- **Embroider** (embroidery) via Anglo-French enbrouder (en + broisder 'embroider') from Arabic muwarrad 'with flower (drawings)', warrad (v), ward (n) where /b/ was inserted; or mudarrab, darb (n) 'lined, striped (cloth)' via reordering.
- Enchanting (chant; enchanting colours) via Old French enchanter 'bewitch, charm' from Latin incantare 'bewitch, cast a spell upon' from Arabic injann(at) 'to be bedeviled, enchanted', jinnat 'devils'; /j/ changed to /ch/ (Jassem 2013i).
- Engrave from Arabic *qaraf (inqaraf)* 'break, splinter' or *2afar (in2afar)* 'engrave, dig' via reordering and passing /2 (q)/ into /g/ (Jassem 2013m).
- **Fade** via Old French *fade* 'pale, weak' from Latin *fadius* 'silly, tasteless' from Arabic *baahit* 'faded, tasteless', turning /b & t/ into /f & d/.
- **Fine** (refinement, refined, define, confine, finish, final) developed via French from Latin finis 'end, limit; peak, height' from Arabic fana 'end', zain 'fine, nice' in which /z/ became /f/, nawf, nayef 'high' via reversal, or fayen 'bad' via lexical divergence.
  - Similarly, German **schön** 'fine' came from Arabic *zain* 'fine' where /z/ became /sh/ (Jassem 2014d).
- Fuchsia via Latin fucus 'seaweed', Greek phykos 'seaweed; red paint, rouge' from Arabic fakih 'happy, funny; smooth; bad', faakiha(t) (n) 'fruit' via lexical shift and turning /h/ into /s/; faaqi3 'bright (red, yellow)' via /q & 3/-mutation into /k & s/; washi 'any mixed colours' where /w/ became /f/ and /sh/ split into /ks/; fajj, fijaaj 'white, immature' via lexical shift and /j/-split into /ks/; or faahi 'light-to-white red' where /h/ split into /ks/.
- **Gold** (goldenrod, golden) via Old English and German Gold (Dutch gou(t/d)) from Arabic jasad 'gold, body, extremely yellow' via /j & s/-mutation into /g & I/; 3asjad 'gold' via reordering, /3/-loss, and /s & j/-mutation into /I & g/; or lajjat 'silver' via lexical shift, reordering, and turning /j & t/ into /g & d/ (Jassem

- 2013d, 2014f).
- **Graph** (graphic, graphology, diagraph, epigraph, orthography, paragraph, photograph, telegraph; graffiti) via Greek graphe 'writing', graphein (v) 'to write, draw' from Arabic 2arf, ta2reef (n) 'letter; edge, curve'; /2/ evolved into /g/ (Jassem 2013c, 2013i). See **diagramme**.
- **Gray** (grey) via Old English græg, grei 'gray', German grau, French gris from Arabic ghurr(at), agharr (adj.) 'white' via lexical shift and substituting /g/ for /gh/ (Jassem 2014f).
- Green (forest green) via Old English grene 'green, young, raw, immature; a field; grassy place' and German grün from Arabic ghareen 'river mud' via lexical shift and turning /gh/ into /g/; karm 'orchard; vine (or fruit) tree field; stone-free land' where /k & m/ became /g & n/; qarn 'early/last grass', qarnia' 'broad leaf plant' via lexical shift; zarqum 'dark blue' via lexical shift, /z & q/-merger into /g/, and turning /m/ into /n/ (Jassem 2014f).
  - As to forest, it comes via French from Arabic 2ursh, a2raa(sh/j) (pl.) 'forest', turning /2/ into /f/ and splitting /sh (j)/ into /st/; or f(a/i)rsh/wirsh (n) 'surface spreading plants', farash (v) via lexical shift and turning /sh/ into /s/.
- **Hazel** (hazel colour) via Old English hæs(e)l 'reddish-brown' and German hasel from Arabic 3asali 'honey-coloured; light brown'; /3 & s/ turned into /h & z/.
- **Heavy** (heavy colour) via Old English hefig 'heavy, having much weight; important; oppressive; slow' and Old High German habig from Arabic 3ib' 'burden, weight, heaviness', 3abi (adj.) 'packed, filled-up' where /3 & b/ became /h & v/; or thaqeel 'heavy', splitting /th/ into /h & v/, turning /q/ into /g (y), and /l & ee/merger.
- **Hot** (heat; hot colours) via Old English hat 'hot, flaming; fervent, intense, excited' and German heiss 'ship' from Arabic 2aad, 2ad 'hot; sharp; edge, limit'; /2 & d/ turned into /h & t/.
- Hue (hueless) via (i) Old English hiw 'colour; form, appearance, beauty', Gothic hiwi 'form, appearance' from Arabic hai'a(t) 'form, appearance, shape' and (ii) Old French hue (and cry) 'outcry, noise, shouting, war/hunting cry' from Arabic (a) 3uaa'/3awi 'crying, howling' where /3/ became /h/ or haija 'anger, war' via /j/-loss, (b) thumma 'then, and' via reordering and turning /th & m/ into /d & n/ (Jassem 2014b), and (c) qarr, qarqar 'talk, cry', turning /q/ into /k/ or Sareekh 'cry' via /S & kh/-merger into /k/ (Jassem 2013i).
- **Illuminate** (illumination, luminance, luminant, luminary) via Latin luminare 'to light, torch, lamp', lumen 'light' from Arabic lama3aan, al-lama3aan 'illumination'; /3/ was dropped.
- Indigo via Middle English ynde "Indian' from Old French inde from Latin indicum 'indigo' from Greek indikon 'Indian blue dye', indikos 'Indian' from Arabic hindi/hindeek 'Indian' via /h/-loss; or nada 'dew; morning fog', nadee/nadawi (adj.) via lexical shift and turning /ee (y)/ into /g/.
- Ink via Old French enque from Latin encaustum from Greek enkauston 'purple or red ink' from Arabic niqs, anquas (pl.) 'ink'; /q & s/-merged into /k/ (cf. Arabic aanik 'lead').
- **Ivory** via Old North French *ivurie* from Latin *eboreus, ebor* 'ivory, elephant's tooth' from Arabic *naab, 'anyaab* (pl.) 'canine tooth' via reversal and turning /n & b/ into /r & v/; or *ibar* 'needles' via lexical shift and turning /b/ into /v/.
- **Khaki** via Urdu *khaki* 'dusty; dust-coloured' from Arabic *khaliq* 'old, shabby, shaggy, worn out' via lexical shift and /l/-loss.
- Lavender 'fragrant plant of the mint family' via Old French from Latin *lavendula, lividus* 'bluish, livid', *lavare* 'wash' from Arabic *2anDhal(at)* 'a type of bitter plant' where lexical shift, reordering, /2/-loss, and turning /Dh/ into /d/ applied; *dufla(t)* 'a bitter plant' via reordering and /n/-split from /l/; or *luft* 'turnip', turning /t/ into /d/ and inserting /n/.
- Light (light colour) via Old English leht and German Licht from Arabic lahaq/lihaq 'shineless white' where /h & q/ became /gh & t/; shu3lat, ash3al (adj.) 'light, flame; red-tinged' via reordering and merging /sh & 3/ into /g/; lajj(at) 'glow' in which /j/ turned into /g/; qillat 'little' via reordering and turning /q/ into /gh/ (Jassem 2013e).
- **Lilac** via French from Spanish from Arabic *lilac*, a variant of *nilac* 'bluish'; or *laili* (adj.) 'night; dark' via lexical shift and /k/-insertion. See **aniline**.

Lime via (i) Old and Middle English *lind* (*lybde*) 'lime tree' from Arabic *laimoon(at)* 'lemon' via /m & n/-merger or *mil2* 'salt; white and blue' via reversal and /2/-loss and (ii) Old English *lim* 'sticky substance, mortar, cement' from Latin *limus* 'mud, mire, slime' from Arabic *raml* 'sand' via /r & l/-merger.

# Luminance See illuminate.

- **Lustre** (*lustrous, illustrate*) via Latin *lustrare* 'brighten, illumine, spread light over' from Arabic *laSaf(aan)* 'glow' via the evolution of /f & n/ into /t & r/; or (*al-)aSfar, (al-)Sufra(t)* '(the-) yellow(ness)' via the replacement of /f/ by /t/, reordering (or /l/-split from /r/), and lexical shift.
- **Make** via Old English *macian* 'make, do, cause' and German *machen* from Arabic *aqaam* 'make'; reversal and replacing /q/ by /k/ resulted.
- Marine (mariner, marinate, mere, mire) via French from Latin marinus 'of the sea', mare 'sea' from Arabic mar(mar) 'sea, much rain' or ba2r(at) 'sea' where /b & 2/ changed to /m & Ø/ (Jassem 2013d). See aquamarine.
- Mark via Old English mearcian 'to trace out boundaries' and German merken from Arabic makar (also maghar/maragh) 'to paint-mark' via reordering and replacing /gh/ by /k/ (cf. marqoom 'marked, numbered', raqam (n) via reordering; marsoom 'drawn', rasm (n) via reordering and replacing /s/ by /k/).
- Maroon 'very dark reddish-brown' via French coleur marron 'chestnut' from Greek maraon 'sweet chestnut' from Arabic numra(t)/namaar 'redness & blackness (as in leopards)' via reordering; a2mar(un) 'red' via /2/-loss; or rummaan 'pomegranates' via lexical shift and reordering.
- Mauve via French 'purple dye' from Latin *malva* 'mallow; a plant dye', Greek *malakhe* from Arabic *mullaa2* 'a deep-red, sour-tasting, edible plant' via /2/-mutation into /v/ in Latin and /kh/ in Greek but /l & 2/-merger into /v/ in French (cf. *mulookhia(t)* 'a tall scented green edible leafy vegetable'; *mawh* 'goldpaint; white (cow)', *mawwah* (v) 'adapt colour' via lexical shift and /w & h/-merger into /v/; or *magah/mahaq* 'blue & white' via lexical shift and merging /q & h/ into /v/).
- Melanin (melanism, melanistic) 'dark brown or black pigment' via Latin mulleus 'reddish' from Greek melas, melanos (gen.) 'black', Sanskrit malinah 'dirty, stained, black' from Arabic mil2, amla2 (adj.), mal2aan 'coloured black and white, white and red, or blue; salt' via /2/-loss and lexical shift; or mulawan, lawn (n) 'coloured'.
- Mix (mixture, admix; colour mix) via Old English miscian 'mix' from French from Latin mixtus (p.p.), miscere (v) 'mix', and Greek misgein 'mix' from Arabic mazaj 'mix'; /z & k/ became /ks/.
- **Mosaic** (muse) via Old French from Italian from Latin mosaicum 'mosaic work, work of the Muses', from Musa 'Muse'. See **Muse**.
- **Muse** via Old French (i) *muser* 'lit., to stand with one's nose in the air like a dog, to sniff' from Arabic *shamm* 'to sniff, smell' via reversal and turning /sh/ into /s/ and (ii) *Muse* from Latin *Musa* and Greek *Mousa* 'the Muse; music, song; goddess of a particular poet' from Arabic *mass* 'devil, madness; lit., touch' via lexical shift or 'uns' 'amusement, entertainment', turning /n/ into /m/ (Jassem 2013i).
- Navy (naval, navigate, navigation) via Latin navis and Greek naus 'ship' from Arabic safina(t), sufun (pl.) 'ship' via reversal and merging /s & f/ nto /v/ (with /s/ becoming /g/ as verb); maa'i/maawi 'watery, blue' where /m & w (')/ became /n & v/; mawj 'sea wave' where /m, w, & j/ changed to /n, v, & s (g)/).
- Oil (olive, oil colours) via French huile from Arabic ihaala(t) 'oil, fat' in which /h/ was lost or turned into /v/; or 'alla 'to light/brighten up, shine'.
- **Opaque** (opacity) via French from Latin opacus 'shaded, dark, obscure' from Arabic ghabash(at) 'opaque; eyesight blemish'; reordering and turning /gh & sh/ into /k & s/ applied.
- Orange via French from Latin (pomum de) orenge from Arabic 'aarinj/narinj 'orange'.
- **Ornate** (ornament) via Latin ornatus (p.p.), ornare (v) 'decorate' from Arabic lawn, talween (n) 'colour'; reordering and turning /l/ into /r/ happened. See **adorn**.
- Oval (ovum/ova) via Latin ova 'egg' from Arabic baiD(at) 'egg; white'; /b & D/ merged into /v/.
- Paint via Old French peintier 'to paint', peint (p.p.) from Latin pingere 'to paint, embroider, tattoo' from Arabic nuqb(at) 'colour' via reordering and turning /q/ into /g (t)/; dabgh(at), indabagh or Sabgh(at), inSabagh (n) 'pigment, dye' via reordering and merging /S (d) & gh/ into /t/. See picture & pigment.

- Pale (pallor, paleo-) via Latin palere 'to be pale' and Greek palaio 'old, ancient' from Arabic baali 'old, disfigured, colourless'.
- Picture (depict, pictorial, pigmentation, paint) via Latin pingere 'paint, colour' from Arabic nabaq/namaq 'write beautifully; beautify; coordinate, line up' via reordering and turning /q/ into /g/; dabgh(at) (indabagh) or Sabgh(at) (inSabagh) 'pigment' via reordering, merging /S & gh/ into /k/, and turning /d/ into /t/; or 2(a/i)br/sabr, ta2beer (n) 'colour' via reordering and turning /2 (s)/ into /k (g)/. See paint & pigment.
- **Pigment** via Latin *pingere* 'paint, colour' from Arabic *dabgh(at, madbagha(t)* (n) or *Sabgh(at), maSbagha(t)* (n) 'pigment' via reordering and merging /S (d) & gh/ into /g/. See **picture**.
- **Pink** (pinkie, pinko, pinky) via Dutch pink 'small; a flower' (as in pink oogen 'lit., small eyes; half-closed eyes') from Arabic zanbaq 'a kind of flower' via reordering and merging /z & q/ into /k/; nabq 'a kind of small fruit' via reordering and lexical shift; qunoob 'buds' via reversal; or naqb '(eye) colour; sweat-black' via reordering.
- **Plum** (prune) via Old English plume 'plum', German Pflaume, Latin prunum, Greek prounon from Arabic bur3um 'lit., bud; green/blue' via /3/-loss and replacing /r/ by /l/; or balam/ablam 'palm leaves; bluish/greenish' via lexical shift.
- **Polish** via Latin *polire* 'to polish, make smooth, decorate' from Arabic *bala/bara* 'to smooth, sharpen, rub'; or *barash* 'to polish, smooth', turning /r/ into /l/.
- Puce 'brownish-purple' via French *puce* 'flea-colour; flea', Latin *pucilem* 'flea', Greek *psylla*, Sanskrit *plusih* from Arabic *barghooth* 'flea' via reordering, merging /r & gh/ into /l/, and turning /th/ into /s/; *qaml* 'lice' via lexical shift, reordering, and turning /q & m/ into /s & p/ in Latin besides their further merger in French; *basal* 'saffron or henna juice; hateful man' (cf. Arabic *baashit* 'discoloured' where /sh & t/ merged into /s/; *aqhab* 'red and white' via reversal and turning /q/ into /s/; *bahaq* 'morbid white skin' via /h & q/-merger into /s/; *aShab* 'red and white' via reversal and merging /S & h/; *ashhab* 'white and black' via reversal and merging /sh & h/).
- **Purple** via Old English *purpul* 'purple dye' from Latin *purpura* 'purple colour, dye, fish from which the dye was obtained' from Greek *porphyra* 'purple' from Arabic *rabaab* 'lit., white/black rain cloud' via reordering and /l/-split from /r/; *barboor* 'fresh green almonds' via lexical shift and turning /r/ into /l/.
- **Radiant** (radiant colours; radiance; irradiate, radiation; ray) from Latin radiare 'to beam, shine', radius 'beam of light; spoke of a wheel; ray, staff, rod' from Arabic durr(at) 'light; rod' via reordering; or warrad 'to become red; to shine'.
- Ray (rayon, colour rays; irradiate, radinace) via Old French rai 'ray of the sun; spoke of the wheel; gush' from Latin radius 'ray, beam; spoke, staff, rod' from Arabic durr, durri (adj.) 'strong, piercing light', durra(t) 'rod' via reordering'; or naar 'fire' or noor 'light' where /n & r/ merged (Jassem 2013e).
- Rainbow (rainbow colours) is a compound of (i) Old English regn and German regen from Arabic raiyaan 'water' where /y/ became /g/ and (ii) Old English boga 'arch, bow, rainbow' and German Bogen 'bow' from Arabic qubba(t) 'circular top; top, dome' via reordering and turning /q/ into /g/.
- **Red** (*infra-red*) via Old English *read* 'red', German *rot*, Greek *erythros*, Sanskrit *rudhra*, Latin *rubber/rufus* from Arabic *ward(at)*, *wardi* (adj.) '(white) rose, flower, red, light red' via reordering and turning /d/ into /th, dh, b (f)/ in the others; *wateer* 'white rose' via reordering and turning /t/ into /d/ (Jassem 2014f).
  - As to **infra** (*inferiority, inferior*), it comes via Latin *infra* 'below, later, than, smaller than' from the comparative of *inferus* 'that is below', English *under*, German *unter*, and Sanskrit *adnah* from Arabic *adna* 'lower' via /d & n/-mutation into /f & r/; otherwise, from Arabic *naafir* 'going up, bulging' via lexical shift or divergence (Jassem 2014c).
- Rose (rosy) via Old English rose 'red', German Rose, Latin rosa, Greek rhodon, Welsh rhosyn from Arabic zahra(t) 'rose, flower' via reversal and /h/-loss; or rawD, riaaD 'roses, pastures', turning /D/ into /s/ (Jassem 2014f).

Rouge via French 'red' (from Latin rubeus/rubber 'red'?) from Arabic raja, 'urjuwan 'deep red'. See red.

Salmon from Arabic salmaan/salamon 'salmon; Solomon' via lexical shift.

**Satin** from Arabic *zaitoon* 'olive'; /z/ became /s/.

Scarlet via French from Latin scarlatum 'scarlet, cloth of scarlet, rich cloth' from Arabic siqillat 'fine cloth' or

- zaakhir(at) 'full, rich' via /z & kh/-mutation into /s & k/ and /l/-insertion; or it may be a compound of (i) scar from Arabic saqar 'fire', 2arq 'burn(t)', or jazari 'radish-coloured' via reordering and turning /2 (j) & q (z)/ into /s & k/ and (ii) let 'small' from Arabic qaleel 'little' via reversal and replacing /q/ by /t/.
- **Scorch** (scorched colour) from Arabic 2aariq 'burning'; reordering, changing /2/ into /s/, and /q/-split into /k & ch/ occurred.
- **Sculpt** (sculpture) via French from Latin sculpere 'carve, cut' from Arabic Salab(at) 'strong, hard stone; crucify; cut' via lexical shift and splitting /S/ into /sk/ (Jassem 2013m).
- **Shade** (colour shade; shadow) via Old English scead 'partial darkness; shelter' and sceadu 'shade, shadow, darkness; protection from heat', German Schatten from Arabic sawaad 'blackness, shade', turning /s/ into /sh/; shada/shadha 'edge, end, limit'; or jadia(t) 'face colour' turning /j/ into /sh/.
- **Shine** from Arabic *sana* 'light' where /s/ changed to /sh/, *naSi3* 'shining' via reversal and /S & 3/-merger into /sh/, or *sha33* 'shine' via /3/-mutation into /n/ (Jassem 2013e).
- **Show** from Arabic *sha33* 'shine' via /3/-loss, *shaaf* 'see' in which /f/ turned into /w/, or *zaha*, *zahoo* (n) 'beam, glow, happiness' where /z & h/ merged into /sh/.
- **Sign** (signal, insignia; signature; design; designate, designation; consign; resign) via Latin signum 'signal, mark, token, symbol', signare (v) 'mark out, mark with a stamp, adorn' from Arabic naqsh 'sign, decoration'; reversal and turning /q & sh/ into /g & s/ applied (Jassem 2013c, 2014g). See **design**.
- **Silver** (silver colour) via Old English seolfor 'silver, money' from German Silber 'silver, money' from Accadian sarpu 'silver' from Arabic ziriaab 'silver' via reordering and turning /z & r/ into /s & l/; Sareef 'pure silver' via /l/-split from /r/; or Sufr, aSfar 'yellow, gold' via lexical shift and /l/-insertion (Jassem 2014f).
- **Smoke** via Old English *smoca* 'fumes' and German *Schmauch* 'smoke' from Arabic *sa2am* 'blackness, smoke' via reordering; or *sukhaam* 'smoke, black dirt, black-yellow' where /2 & kh/ developed into /k/.
- Soot (sooty) via Old English sot 'soot' and Old Dutch soet from Arabic sawaad/sood 'black', turning /d/ into /t/.
- **Sparkling** (sparkling colour, spark) from Arabic qabas 'spark' via reordering, changing /q/ into /k/, and /r/-insertion; or barq (istabraq) 'lightening' where /q/ split into /s & k/.
- **Swart** via Old English for 'black' and German *schwartz* 'black' from Arabic *sawaad/sood* 'black'; /d/ became /t/. See **black**.
- **Tan** via Old English *tannian* 'to convert hide into leather' from Latin *tannare* 'tan, dye a tawny colour' from *tannum* 'crushed oak bark' Arabic *dihaan/dahn* 'paint; red leather/skin'; /d & h/ became /d & Ø/.
- **Tapestry** via French *tapis* 'heavy fabric, carpet' from Latin *tappetium* from (classical) Greek *tapetion* (*tapes*) 'heavy fabric, rug, carpet' from Arabic *bisaaT* 'rug, carpet' via reordering.
- **Tattoo** from Arabic khaTT, khuTooT (pl.) 'lines', turning /Kh & T/ into /t/.
- Teal 'small freshwater duck; shade of a dark greenish-blue on the fowl's head and wings' from Arabic *Tu2la(t)* 'gray to white with little black' via /2/-loss; *Dhill* 'shade; blackness' where /Dh/ became /t/; *Talas* 'black to gray', merging /s/ into /l/ (cf. *dhail* 'tail (e.g., pheasant)' via lexical shift and turning /dh/ into /t/; *Tilaa'* 'paint, cover').
- **Tinge** (tincture) via Latin tingere 'to dye, colour' and Greek tengein 'moisten' from Arabic damgh(at) 'dye'; reordering and turning /d, m, & gh/ into /t, n, & g/ applied.
- **Tone** (colour tone, toner) via French from Latin tonus and Greek tonos 'tone, sound, accent; originally, stretching' from Arabic Tann/dann 'sound', turning /T (d)/ into /t/; thana 'bend' via lexical divergence and turning /th/ into /t/.
- **Transparent** via Latin *transparens* (p.p.), *transperere* (v) 'show light through' as a compound of (i) *trans* 'through, across, over, beyond' from *trare* (v) 'to cross' from Arabic *ta(r/l)a, tatra* 'come, follow' via lexical shift and (ii) *parere* 'come in sight, appear' from Arabic *bahara* 'appear, come in light' via /h/-loss or *bara'a*, *barra* 'appear, see, look, out'.
- **Verdant** (*verdure*, *verdancy*) via French from Latin *viridis* 'green', *viridiare/virere* (v) 'grow/become green' from Arabic *akhDar* 'green'; reordering and replacing /kh & D/ by /v & d/ ensued.
- **Violet** (ultra-violet) via French 'small wild plant with purplish-blue colours' from Latin viola 'the violet, a violet colour' from Arabic full(at) 'a flower' or loof 'a small wild green peppery broad-leaved vegetable' via reversal and lexical shift.

As to **ultra-** (*ultimate*, *ulterior*, *ultimatum*), it comes from Latin *ultra-* 'beyond, on the other/farther side, past', from *ultimatus* (p.p.; superlative), *ultimare* (v) 'to be final, come to an end' from Arabic 'atamm (v) 'come to an end; perfect', taamm(at) (adj.) 'perfect', al-taamm(at) 'the-perfect; ultimate; end'; /l/ was inserted.

- Warm (warm colours) via Old English wearm 'warm' and German warm from Arabic 2aami, 2amaawat 'hot, heat' where /2/ became /w/ and /r/ was inserted; or a2mar/2amar lit., red; warm, hot' via reordering and turning /2/ into /w/.
- **Water colours** via Old English *wæter* and German *Wasser* from Arabic *wird* 'water' via reordering and turning /d/ into /t/; or *qaTr* 'rain water', turning /q & T/ into /w & t/ (Jassem 2013d). See **colour**.
- Wave (wavy colour) via Middle English waw from Old English wagian 'move to and from' and Old High German wag from Arabic maaj/mawj 'move to and fro; sea wave' where /m & j/ became /w & g (v)/; hawaa' 'air' in which /h & w/ turned into /w & v/ each; haif, haffa(t), hafhaf (v.) 'air wave, movement' in which /h/ turned into /w/; or wa2ee 'point to' where /2/ passed into /v/ (cf. waive from Arabic 3aafa/3afoo 'leave, forgive' in which /3/ became /w/ (Jassem 2012b).)
- Wheat (white) via Old English hwæte 'wheat; lit., white', German Weizen from Arabic waDa2 'white, light. apparent' via reordering and turning /2/ into /h/ (Jassem 2014f).
  - In Welsh, **gwenith** (gwenn 'white') is from Arabic 2inTa(t) 'wheat' in which /2/ split into /gw/ and /T/ became /th/; qam2a(t) 'wheat' via /2/-loss and turning /q & m/ into /g & n/; or qaani(at) 'pure, white' where /q/ split into /gw/..
- White via Old English *hwit* and German *weiss* from Arabic *waDa2* 'white, light, appear', *waaDi2* (adj.) 'clear, white'; /D & 2/ became /t & Ø/ (Jassem 2014f). See wheat.
- Yellow (yolk) via Old English geolu/geolwe (ge(o)lca) and German gelb from Arabic ajla2 'yellow', turning /j & 2/ into /g (y) & w/; 2ilba(t) 'yellow-seeded milky plant', 2ulboob 'black', 2aleeb 'milk' via lexical shift and turning /2 & b/ into /g (y) & w/; or qaali2/kaali2 'discoloured, grey' where /q & 2/ became /g (y) & Ø/ besides lexical shift.

To sum, the total number of *colour and artistic terms* amounted to 125, all of which have true Arabic cognates: i.e., 100%.

# 4. DISCUSSION

The above results clearly demonstrate that *colour* and *artistic terms* in Arabic, English, German, French, Latin, Greek, and Sanskrit are true cognates because they have similar or identical forms and meanings. Their differences, however, are due to natural and plausible causes and different courses of phonetic, morphological and semantic change. As the percentage of shared vocabulary between Arabic and English, for example, in this study amounted to 100%, this indicates their membership to the same language- i.e., dialects. This ratio is in excess of Cowley's (1997: 172-173) 100 word list-based classification in which an 80% ratio is set for that membership.

Thus the results are in harmony with all the findings of previous studies (Jassem 2012a-f, 2013a-q, 2014a-i) in which English, German, French, Latin, Greek, Sanskrit and Arabic were all found to be rather dialects of the same language, let alone the same family. Moreover, they lend further support to the lexical root theory on all planes. On the theoretical level, the main principle which states that Arabic, English, German, French, and the so-called Indo-European languages are not only genetically related but also are dialects of the same language is, therefore, theoretically and verifiably sound and empirically true. Retracing English *colour and artistic terms* to true Arabic cognates clearly substantiates that phonetically, morphologically, grammatically, and semantically.

On the analytical level, all procedures worked neatly and smoothly. Phonetically, the entire changes were natural and plausible including substitution, deletion, merger, split, reordering, resyllabification, and so on. Morphologically, the morphemic affixes of all types have true Arabic cognates as well as has been shown in due course above (see Jassem 2012f, 2013a-b, 2013l).

Semantically, the following patterns emerged. First, lexical stability was the general pattern where most colour and artistic words preserved their basic meanings across the languages. Secondly, the recurrence of lexical convergence in the data was due to formal and semantic similarity between Arabic words, on the one hand, and their English cognates, on the other. For example, *yellow, black, red, paint* and many more might each derive from several Arabic words, all formally and semantically similar. Although only one cognate might be the ultimate source in the end, there is no need for the time being to specify which one that is. Likewise, semantic multiplicity was abundant, where some English words had more than one meaning, which might have more than one likely Arabic cognate; for instance, *hue* has two different meanings, each of which derives from formally and semantically similar Arabic words (see above). Lexical shift was also common as in *amber, black, pale,* and so on (see 3. above). Lexical divergence also took place in words like *auburn, beam*. Lexical split affected *black/bright* which came from Arabic *barq/balq* 'white, bright'. Finally, lexical variability was noted in those words which had different forms within and across Latin, French, English, German, and Arabic.

Where do these findings lead to? What do they imply and signify? As Jassem (2014a-b, 2014e) noted earlier, they signify several things. First, they indicate that Arabic, English, German, French, and the so-called Indo-European languages are dialects of the same language since their words have similar or identical forms and meanings (cognates), with Arabic being the source or parent language because of its phonetic capacity and complexity and lexical multiplicity and variety with 489 single colour terms. They, therefore, imply that the so-called proto-Indo-European language (and so-called homeland) hypothesis is definitely fictitious work which should, subsequently, be rejected outright because all English, German, and French words, for instance, are traceable to Arabic sources. Furthermore, they show that there is no need to *reconstruct* an old world language; rather that proto-language has survived into today's languages here, the closest descendant of which is Arabic for having the richest stock of 489 colour terms against 11-32 for English, for example.

In light of this, perhaps the most important implication is the existence of a perfect, suddenly-emerged Radical or Root Language from which all human languages initially stemmed and into which it has survived variably, though getting simpler and simpler over time. How can one explain the huge Arabic colour word stock of 489 terms compared to 11-32 in English? Is it because the Arabs are more intelligent, more sophisticated or because their land is more colourful than Europe is, which is actually greener, more watery, and consequently more colourful? As none of these statements are true, the only plausible explanation is the permanence, preservation, and inheritance of this huge Arabic word stock from an earlier, perfect language, which was preserved almost fully in Arabic. This is in harmony with language acquisition principles according to which man learns or acquires, but not invents, language. It is also in consonance with language evolution which gets simpler and simpler over time. So one can say in general that early (prehistoric) man, or Adam and Eve for the matter, spoke a language which is not too far removed or different from English, German, Latin, Greek, Sanskrit, or Arabic, the last of which is the closest and likeliest spatially, temporally, and, above all, structurally. The differences amongst such languages are the consequence of the operation of the natural forces of language change phonetically, morphologically, grammatically, and semantically as well as orthographically (for detail, see Jassem 2014h). In short, the bulk of linguistic evidence from this and the other studies (Jassem 2012d, 2013l, 2014h) shows that there must have been a Radical or Root Language from which all human languages initially stemmed and into which it has survived variably although it became simpler and simpler over time.

# 5. CONCLUSION AND RECOMMENDATIONS

The main findings can be summed up as follows:

- i) The 125 colour and artistic terms in English, German, French, Latin, Greek, Sanskrit and Arabic are true cognates with the same or similar forms and meanings, whose differences are due to natural and plausible causes and different routes of phonetic, morphological, and semantic or lexical change.
- ii) The lexical root theory has been adequate for the analysis of the close genetic relationships between colour and artistic terms in Arabic, English, German, French, Latin, Greek, and Sanskrit according to which they are all dialects of the same language in every respect. Phonetically, the main changes

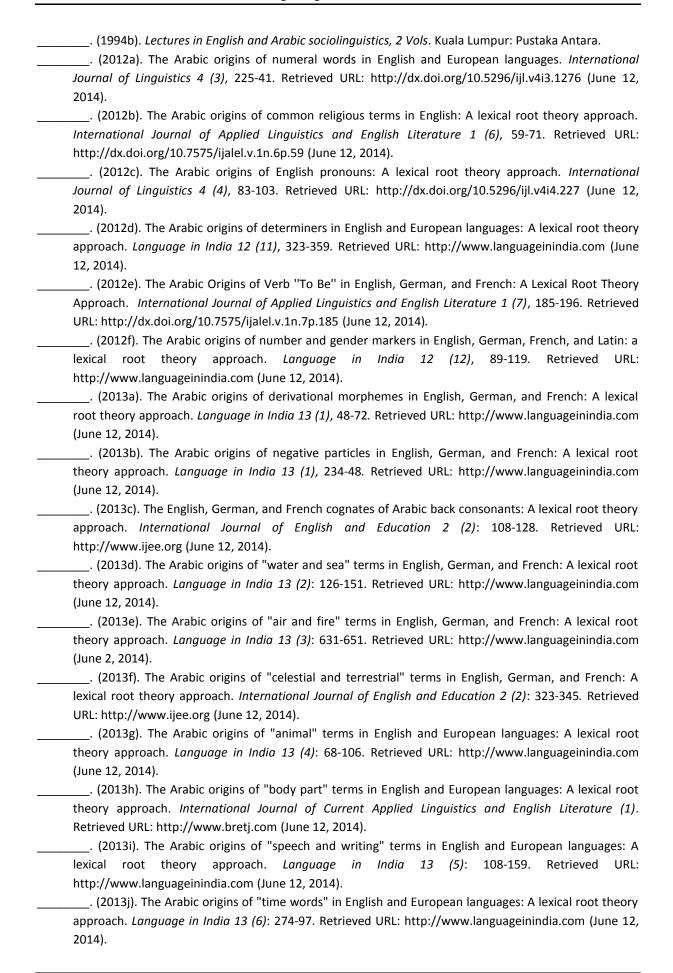
- included substitution, reversal, reordering, split, and merger; lexically, the recurrent patterns were stability, convergence, multiplicity, shift, split, and variability; the abundance of convergence and multiplicity emanate from the formal and semantic similarities between Arabic words from which English and European words stemmed in the first place.
- iii) The Radical or Root Language, or early prehistoric language, was not only real and perfect but also has variably survived into today's languages, despite getting simpler and simpler over time. As Arabic has, besides its phonetic capacity and complexity, the largest colour word stock of 489 terms in comparison to 11-32 ones in English, German, French, and Indo-European languages, it can be safely said that it is the most conservative for inheriting almost all the Radical Language features in full, thereby showing its permanence and unbroken continuity.
- iv) Finally, the current work supports Jassem's (2012a-f, 2013a-q, 2014a-i) calls for further research into all language levels, especially lexis or vocabulary. Also the application of such findings to language teaching, lexicology and lexicography, translation (Jassem 2014d), cultural (including anthropological, historical, social, religious) awareness, understanding, and heritage is badly needed to promote and expedite constructive, cross-cultural cooperation in all walks of life.

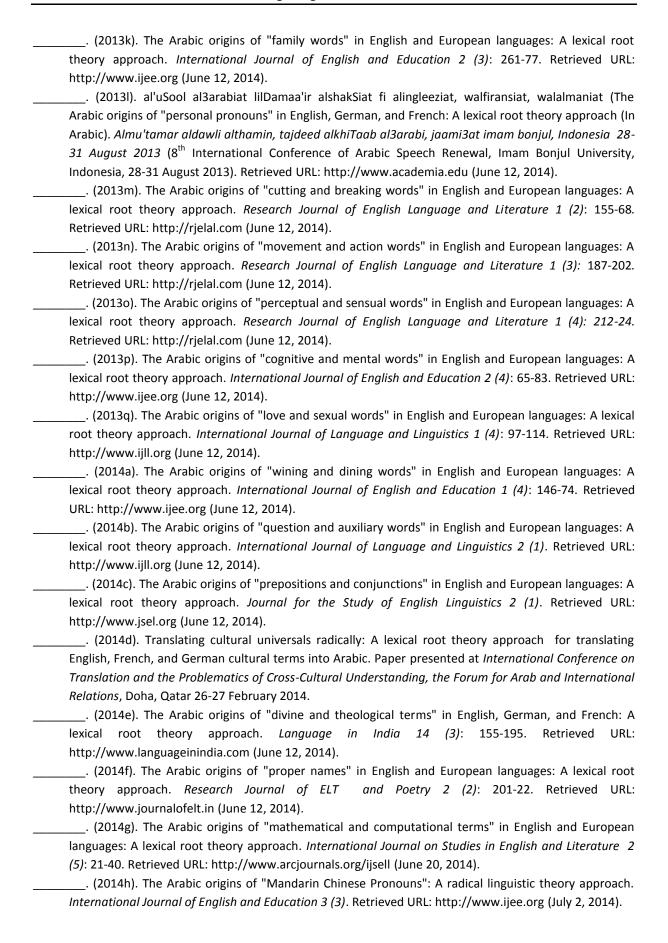
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