

COLOUR TERMS IN THE OLD TESTAMENT

ATHALYA BRENNER





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ATHALYA BRENNER

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FOREWORD

Scholarship has in modern times become increasingly aware of the necessity for an adequate theoretical framework for the study of vocabulary. Words cannot be understood in isolation, but only as possible choices, as against other words, within the language of a particular period; and they cannot be understood simply on the basis of derivation and etymology, for these do not tell us how the various units acted and interacted in actual use. Although all this has come to be realized, scholarship has been slow in developing methods by which entire word-groups and sectors of the vocabulary could be isolated and studied as a whole. Many difficulties seem to stand in the way of isolating one semantic area from another.

In this respect colour terms seem to provide a highly interesting test case. One can, at least *prima facie*, hope to identify what is a colour term with some prospect of general agreement, and the literature provides sufficient evidence of usage to provide a suitable basis for study. On the other hand, the terms are not so directly loaded with religious nuances as many biblical terms are. Moreover, they form an excellent testing area for certain hypotheses about the correlation (or non-correlation) between psychological structures and the building of vocabulary in languages. The conventional glosses used in dictionaries and translations of the Bible, which offer us the simple English "red" or "blue" as rendering of a Hebrew term, must be regarded as rough approximations or wild over-simplifications at the best. Comparatively little systematic and informed study of these problems has been attempted in the area of biblical scholarship.

The author of this work, Mrs. Brenner, is a sensitive and sophisticated linguist, who approaches the subject with a thorough appreciation of modern linguistic methods and of other scientific approaches that bear upon the problem. Her description of the Hebrew vocabulary, both biblical and post-biblical, has great importance for the entire lexicological analysis of the language, and may well provide the stimulus for many analyses of other semantic fields in the future. It is a pleasure to recommend her work to the world of scholarship.

James Barr
University of Oxford

A PERSONAL NOTE

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Last but not least. My family and friends aided and abetted, suffered and hindered, while the thesis was written and then made into the present volume. Without their support and humour this task would have been much more difficult and less enjoyable. To Chava and Benjamin (my parents); Shalom (my long-suffering husband); Iddan (my son); Ruth Stadler; Uzi Istikowitch; and Shalom Paul - THANKS.

Haifa, May 1982.

Athalya Brenner

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I INTRODUCTORY REMARKS AND METHODOLOGY

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A. THE PHENOMENON OF COLOUR AND COLOUR TERMS

Light is perceived by the healthy human eye quite readily. It is "one of many conceivable aspects of radiant energy"¹ which is part of our physical environment.² The distribution of light is determined by its source (for instance, the sun), and by the length of the light waves; when light falls on any material, a "transformation" of energy occurs. This energy is not lost but is reflected, absorbed, and transmitted, in proportions that are different at different wavelengths.³

The result of this physical reality - the distribution of radiant energy at various wavelengths - is what appears to us as visible "colour". Energy distribution reaches the eye of the observer, is then transmitted through the observer's vision and interpreted and turned into a sensation. Physics alone cannot account for the appearance of energy distribution - visual and mental processes are responsible for the recognition of radiant energy as "light" and "colour". The visual aspect, however, is "often less important than the brain behind the eye".⁴

It follows, then, that while energy = light and spectral distribution = colour can be analyzed in terms of physical properties, they cannot be fully understood unless they are considered as manifestations of features that are both psychological and physical, i.e. they are psychophysical concepts. Consequently, the evaluation of light and colour is of "medial nature: implying at once an appraiser - the human observer - and an object of appraisal - radiant energy".⁵ Objects are visually accessible because light is reflected/refracted from them and enters our eyes. Nothing can be seen without - at least - a minimal amount of light. This is particularly valid where colour is concerned: without light colours cannot be differentiated and, therefore, are non-existent.⁶

Objects which are seen frequently are the most easily perceived. Perceptions of brightness, colour, shape, size, number, distance, and movement are determined by the sense organs and the nerve system. The repeated exposure to spatial and temporal relationships cancels out individual differences of

perception capacities and the manner in which attention and concentration are applied to the visual environment. As a result, many phenomena are perceived by "most people belonging to any one human society" - and are classified, learned, and reacted upon - in a similar manner.⁷ It is obvious that any object, even after it has been perceived, continues to exist externally and independently of spectral distribution of radiant energy as "colour" neither changes the characteristic features of this phenomenon nor alters its manifestations. On the other hand, the perceived object has now become 'internalized': it has supplied the stimuli needed for the formation of sensations. These experiences are classified and categorized according to their appearance and function,⁸ so that they can be efficiently utilized. They are subjected to cognitive processes of learning and of assembling additional perceptive data. These processes are not entirely conscious, and their results do not necessarily mirror 'external' facts faithfully. On the contrary: it would seem that human awareness tends to exaggeration. A colour experience, for instance, is remembered so vividly that its unique components are over-emphasized: a bright red is perceived as even brighter; a strong green becomes more so; and a yellow-green is polarized, diagnosed, and defined either as green or as yellow.⁹ When a spontaneous original impression is turned into an experience it becomes a member of a set of similar occurrences that are arranged according to a principle of their most typical, even exaggerated, feature. Admittedly, this view of conceptualization and subsequent codification and inter-person communication is difficult to prove. What makes it plausible is the linguistic practice of instituting general superordinate terms and of using them even when more specific subordinates are available in a given time or place. In other words: for the sake of economy and clarity, the focus of the impression serves as a representation of the whole; the experience supplants the impression and is substituted for it. The external object has been translated into an 'internal' concept which is then encoded and stored for future reference. A chain reaction has been instituted - the conceptualized notion will assist in recognizing new perceptions. The resultant sensations will (in their turn) become experiences,

and will be subjected to various cognitive processes of classification, arrangement, recognition, encoding, and analogy. A typical mental image will evolve. This will be employed as a yard-stick for the purposes of identification of objects, for the recollection of similar events, and for sensual or aesthetic enjoyment of our physical surroundings. Furthermore, perception - especially that of ordinary aspects of the visible world, such as brightness and colour - is heightened, even generated and motivated, by previous experiences. "Expectations are established as to the probability of occurrence in particular situations of events and objects belonging to these categories; and these expectations facilitate rapid and accurate perception".¹⁰

Like any other sensory phenomenon, colour sensation is transformed into mental images. These images are non-linguistic. Colours are perceived independently of the mediation of language, and their status *vis-à-vis* other colours can be defined non-verbally as well as verbally. Babies who are a few months old can discriminate between bright-coloured objects, especially red ones, and less bright objects. They show their preference for the bright object by focusing their eyes upon it, by movements and by facial expressions. Hence, one concludes that recognition and conceptualization occur long before the process of naming takes place. A toddler will probably be two years old before he begins to learn the names for the primary colours 'red', 'blue', 'yellow', and 'green', although he would have been able to differentiate colour and respond to it at an earlier age.¹¹ However, once the naming process begins there is greater accuracy in perceiving and in discriminating colours: verbal symbols, once acquired, not only aid colour perception but also enhance and preserve it. Therefore, if inaccurate colour discrimination exists independently of the appropriate verbal symbols attached to it within a language system, then an analogy can be drawn between child perception and adult perception. Further, the existence of any colour name within the lexis contributes towards further differentiation and organization of a colour sensation by defining colours as contrasting entities. However, the absence of a colour term from the lexicon does not necessarily denote lack of recognition of this particular

colour sensation on the part of the speech community, or of individuals who belong to the community.¹²

Although perceptions exist prior to the terms that refer to sensations, the arrangement of the sensory 'raw material', as it were, into cognitive sets depends largely upon the existence of verbal symbols that refer to them. A verbal symbol is easier to remember and to catalogue as a component of a structured order than a mental image or picture. Images represent the compact essence of sensations: they define the uniqueness of an experience by stripping away elements that seem less important than others, thus transforming sensations into concepts. Symbols are even more economical, abstract, and precise than images: economical, for they are short; abstract, for they are not used to reproduce the original sensation but to recollect or to simulate it; and precise, for they denote the typical qualities associated with the essence of a given concept.

Language, of course, is fundamentally a bi-lateral exercise, a "... system of communication by sound, operating among members of a given community, by which human experience is analyzed and segmented into units which possess phonic expression and semantic content".¹³ Verbal symbols do not only encode an experience but also convey it in a conventional manner, so that the listener will grasp its meaning and will be able to respond accordingly. Language signs are usually arbitrary in their relation to the phenomena they encode, but can be acceptable only if there is a basic agreement as to their form as much as their contents; that is, the references to the 'real' world of sensations, objects, and ideas. The physical, non-linguistic world is not defined and delineated in the way language is, although language divides 'reality' into demarcated units. As Ullmann observes, although the spectrum is a continuous band, we impose onto it a certain amount of arbitrary observations or definitions that may vary from language to language or even from one period to another period in the life of the same linguistic unit.¹⁴ The relations that link (verbal) signs, referents, and concepts (meanings)¹⁵ are mutually influential, and various linguistic factors may determine shifts in sense from one verbal item to another.¹⁶ These shifts may mould, change, or seem to change the presentation of the (non-linguistic) sensory

experience of the speakers of a given language.

An illustration of these points can be gleaned by following the usage of $\sqrt{\text{צהב}}$ (Qal and Hif.) and some of its nominal derivatives first in biblical Hebrew and then in MH.¹⁷ In Lev. 13:30, 32, 36 the term צהב is applied to (human) hair. The context is one of skin and hair diseases and the oppositional term שער שחר (vv. 31, 37) defines צהב as a colour term. The dictionaries¹⁸ describe it as denoting a gleaming, yellow or yellow-red quality, similar to the quality of זהב = gold¹⁹ (in its shine) and perhaps also genetically related to the latter. The cognate supplied is צהבה = 'be yellowish-red', and the derived (Hof. part.) form (in Ezr. 8:27) מצהב (נחשת) is explained as 'polished, gleaming' (bronze).

In MH the basic meaning of צהב - 'yellow, gleaming' - is preserved and used in conjunction with שער , but also with פנים . There are many forms of Qal and Hif. These can be divided into two groups according to their syntagmatic relations in their contexts:

- A. $\sqrt{\text{צהב}}$ Qal + פנים , Hull. 7:2 - צהבו פניו של רבי
- B. $\sqrt{\text{צהב}}$ Qal or Hif. + ל , על, כנגד + nominal (object),
 Tal., Snh. 105a - $\text{משל לשני כלבים ... והיו צוהבין זה לזה}$
 Tal., M. Kat. 24b - $\text{היוצא במטה רבים מצהיבים עליו}$

The dictionaries²⁰ record both the continuation of biblical usage and, next to it, another sense of 'grieve', 'be angry, defiant' for the verb forms in MH and in Jewish Aramaic. At first glance this second meaning can be understood only by assuming a figurative usage of צהב : הצהיב : as Rashi says in his commentary to Snh. 105a, when a man is angry פניו צוהבין , becomes tense and pale. But as Ben-Hayim points out, all the instances of group A. ($\sqrt{\text{צהב}}$ + פנים) denote pleasure and joy, not grief or anger.²¹ Thus we cannot assume only a polysemantic shift from the concrete ('gleaming, yellow') to the abstract ('anger'); but should we also assume a development by way of polarization in the sense of the abstract, figurative usage itself - from anger to joy - based on the same extra-linguistic observation that a person's face changes colour while his emotions are stirred (without reference to the nature of these emotions)?

According to Ben-Hayim, this is hardly the case. The first indication that this view should not be adopted is supplied by the syntagmatic re-occurrence of $\text{פנים} + \text{צהב}$ in the sense of

'be pleased, glad', in contradistinction to the structure exhibited by group B. To assume a state of polysemantic polarization, be it primary or secondary, is risky in most cases.²² The solution he proposes is quite different. Group A demonstrates the shift from the colour term צָהָב, through the observation that a man's face brightens when he is pleased, to 'show pleasure or joy'. Group B and its opposing sense is etymologically unrelated to A. It is traced back to צָהָב in Christian Aramaic and ضَحَب in Arabic (against ضَرَب), which basically means 'shout', 'scream'. This basic sense of צָהָב is then shifted and widened until it denotes 'quarrel', 'be angry'.

Therefore, MH dictionaries should record two distinct צָהָב sequences:²³ the one derived from bib. Hebrew צָהָב, while the other is unattested in biblical language but confused with the former once it has become homophonous and homographic with it in MH. A distinction is made in MH between the colour of a happy or healthy person's face ('bright': אָדָם, צָהָב) and that of an angry one ('pale, greenish' - יָרֵק; all in Tal. Ket. 103b).²⁴ It is true that biblical צָהָב is enlarged in MH by being applied more widely (not only to שָׁעָר), and there is a greater abundance of nominal (i.e. צִיְהוֹב) and verbal forms apart from the figurative (group A.) usage. Nevertheless, it will be a mistake to claim that bib. צָהָב is the basis for all צָהָב occurrences in MH. As demonstrated above, a certain sense originated from a sound shift - not a sense shift - which was not recognized as such. This error was the basis for the confusion showed by Rashi and by the dictionaries.

To summarize: the referential scope of bib. צָהָב as a colour term is basically unchanged in MH. Perhaps we should say that the wider application of the term, coupled with the appearance of secondary derived terms, point towards a possible restriction of it (although this is by no means certain). As will be shown in the appropriate discussion - see צָהָב in MH, III, B.5, p.184 - even in MH we cannot posit צָהָב as an exclusive Hebrew equivalent to 'yellow', which is the slot צָהָב belongs to in the "colour" system of modern Hebrew. In addition, the term has acquired a "non-colour" figurative sense through its colour denotation. The position of its derivatives within the secondary field is

made ambiguous by the existence, within that same (figurative) field, of a homonymous term which denotes the opposite of $\sqrt{\text{צחצח}}$ I. An attempt to carry $\sqrt{\text{צחצח}}$ I to the field of 'emotions and their visible indications' as a root referring to the external appearance of both 'joy' and 'anger', and not 'joy' alone, would therefore be incorrect and misleading.

Let us return to the psychophysical specifications of colour.²⁵ As noted above (p. 3), what we regard as 'colour' is a physical manifestation of light and illumination. On the other hand, when we define colour as a psychological 'reality', we have to list the three dimensions which are normally perceived as the characteristic attributes of colour sensation. These are:

a) *Hue*, or the presence or relative absence of chromaticity. An object which is perceived as 'red' is immediately felt to differ from a 'green' object even if the 'red' is quite dark in colour, while the 'green' is felt to be light in colour. In terms of light, hues or chromaticity represent dominant wave-lengths (red - long waves; green - short waves, and so on).

b) *Brightness*. We distinguish between light and dark colours even within the same hue range, that is, we apply a quantitative criterion to the quality of chromaticity. The leaves of the olive-tree are perceived as different from those of the pine-tree, although there is an agreement about their common 'greenness'. In terms of light, brightness denotes the amount of white light applied to a visible object; or, in the case of a pigment, how much white or black is mixed in with the pigment in order to achieve the required result.

c) *Saturation*. The purity or intensity of the perceived colour. If a coloured object is considered typical of its kind, then it seems to possess a high amount of saturation. The possibilities of confusing it with other colours are then minimal. In terms of light, saturation is determined by the existence - or the absence - of homogeneous, spectrally pure radiant energy.

Apart from these three dimensions there are other factors that contribute to the colour experience. These are variables that represent our perception of the visible properties of physical objects. These additional features do not determine

the colour sensation but influence it to a certain degree. A person who is trying to define any given colour sensation consciously will probably ask himself at least some of the following questions:

- 1) Does the colour seem to be inclusive, like the colour of blood, plants, or metals? Or, does it look like a surface colour? (e.g. an exterior coating of a paint or dye?)
- 2) Is the surface reflective or is it relatively non-reflective?
- 3) What are the texture and the shape of the object?
- 4) Is the surface glossy or matt, transparent or opaque?
- 5) How far from the scrutinized object or how close to it is the observer? What are the visible-spatial relations between the object and its visual environment?²⁶
- 6) What is the scope of the coloured object? Is it perceived as uniformly coloured or non-uniformly so? In the latter case, how are the various visual areas set off by one another? Is there a clear boundary between them or do they merge into each other? It would seem that when we are confronted with speckles, dots, stains, and the like, the shape of a colourful object is as important as its colour; or, conversely, the colour determines the boundaries of the shape.

The complexity of what we call 'colour' has been outlined above only in a generalized manner. The multi-dimensional properties and complexity of the sensation are probably at least one of the reasons for the vagueness and relative ambiguity of colour terminology in all languages. So many shades exist that an attempt to convey them in words is bound to simplify, exaggerate, and/or overlook fine distinctions. The terms vary from person to person and even in the same person's speech, while only a few colours are generally conveyed by single terms that refer unmistakably to them.²⁷ Let us now consider some of the assumptions concerning colour-naming that have been advanced by European scholars during the last hundred years, and were repeatedly debated during that time.

a) In all languages, colour terminology (reflecting colour discrimination) developed gradually and hesitantly. Some scholars, notably Gladstone²⁸ and - more judiciously - L. Geiger,²⁹ even concluded that the ancients' colour sense, as reflected in

philological material, was less acute than that displayed by modern Europeans. According to them, colour nomenclature is the product of an evolutionary trend which corresponds to a similar process of development in psychophysical perceptual abilities.

b) The difference between light and darkness - and between the abstract notions of light and dark, black and white - is easily discriminated and encoded.

c) After the recognition of light as a defining factor comes the naming of the chromatic, spectral colours. Indeed, it seems that colour coding in European languages is motivated first and foremost by hue, while saturation and brightness are perceived as secondary attributes. The hue component is perceived as the most specific feature, and is used as the chief differential for terminology building.³⁰ English illustrates this point very well. Spectral colours are referred to by single lexical units - 'red', 'green', etc. Let us look, for instance, at the range superseded by 'green': distinctive sectors within 'green' (which includes a variety of hues, some of them bordering on blue and yellow) are usually expressed by a compound ('apple green', 'moss green', etc.) which is based on the comparison to an object displaying this typical shade. To all intents and purposes the compound, despite a transparent structure that points to its secondary nature, functions as a single unit. However, when variations in the brightness scale are to be conveyed, the structure of the resulting syntagm is different: a modifying term such as 'dark', 'light', or 'pale' is attached to the colour name. Variations in saturation are similarly defined by using the second structure, albeit with the qualifiers 'deep', 'rich', 'strong', or 'dull'. Additional attributes of the colour sensation display the same structure,³¹ perhaps because they are felt to be secondary members of a wider group that defines itself by referring to the same basic (extra-linguistic) feature.

d) The human retina and nerve fibres respond maximally to the red, green, blue, and perhaps yellow of the spectrum.³² Hence, these colours are considered psychologically 'primary' and are easily recognizable and verbalized. In fact they are the first to be discriminated by small children.³³

Since psychophysical perception and philological development are analogous, the terms denoting these colours should be the first chromatically-oriented terms to appear in any given language.

e) The lack of a colour name in a language might imply the lack of discrimination of that (chromatic) colour on the part of the speakers of that language.³⁴ This assumption was held to be valid mainly until 1880. It was widely applied to so-called 'primitive' cultures³⁵ and to literatures of ancient civilizations,³⁶ where the absence of a single term for our 'blue', for instance, is conspicuous;³⁷ colour names are few (in comparison to modern European languages); and the boundaries between chromatic colours seem to be only vaguely defined, if at all.

Let us discuss these assumptions briefly in order to find out if - and how - they can be applied to colour names in ancient literatures. Magnus showed already in 1880³⁸ that colour perception and its verbal identification are not directly connected, although there is an evolutionary trend in the development of nomenclature. Magnus investigated 'primitive' languages, while G. Allen³⁹ argued for the same approach to ancient literature; that is, he refuted Gladstone's views of colour perception and colour terms in ancient Greek. Rivers reopened the question in 1901.⁴⁰ Later in the twentieth century the double-stranded evolutionary hypothesis (of perception = terminology) was abandoned due to the preoccupation with the 'linguistic relativity' hypothesis. A different evolutionary hypothesis has been in favour since the publication of Berlin and Kay's *Basic Colour Terms*. Nowadays there is virtually a general agreement as to the lack of correlation between perceptual ability and the composition and versatility of the colour lexicon. (See below, p. 14 ff.).

Brightness, or the relative absence of it, is the decisive factor for naming the distinction between dark and light, black and white. Black and white are achromatic (and hence are sometimes called 'neutral'). It is often observed that because they are hueless they are not colours at all, properly speaking.⁴¹ This leads us to the third assumption, namely, the decisive importance of the chromaticity factor for determining a colour

name. This notion has been repeatedly refuted. Although it is correct as far as most European languages are concerned, it is not necessarily so with regards to other languages, 'primitive' and ancient alike. Heinrich demonstrated the importance of brightness, or the dark-light contrast, for the colour terminology of Bering Straits Eskimo speakers.⁴² Dürbeck⁴³ and Fronzaroli⁴⁴ dealt with the problem of misapplying these chromaticity-oriented Western concepts to written languages. Berlin and Kay attempted to determine the order in which basic colour terms enter the lexicon of any given language (see below). The lack of correlation between nomenclature and perception is summarized by Berlin and Kay,⁴⁵ and by Vernon.⁴⁶

I would like to elaborate the objections - listed in the previous two paragraphs - to earlier views and generalizations; and, partly by following the Berlin-Kay hypothesis, to suggest an evolutionary framework for the development of colour terms in biblical Hebrew and post-biblical Hebrew.⁴⁷ It will be submitted that names for the achromatic 'black/white' originally had, and - to a certain degree - even retained, a basic meaning of 'darkness'/'light'; that the motivation for installing further terms was first brightness and only later chromaticity, while the brightness factor has remained relatively weighty (See discussion of לָבָן vs. שָׁחֹר, צָהָב, and צֶהָב, of the same field; and the distinctions in saturation and in brightness of the same hue embodied in the contrasting pairs אֲדָמָה/אֲדָמָה, זָרוּק/זָרוּק, שָׁחֹר/שָׁחֹר*, a contrast that is expressed by creating a secondary lexical formation, but not by using a compound or a modifier + modified nominal construction, as in English); and finally, that colour terms have probably developed in the language in a partially predictable order, and that the historical-diachronic description of this process implies modifications in the traditional hue-determined arrangement of colour names in Hebrew (as in other ancient languages, or in modern languages that are spoken by communities considered to be 'low technology profile',⁴⁸ societies). Indeed certain terms, especially the achromatic 'black'/'white', preserve their 'light' or 'absence of light' connotations even after they have developed into full fledged symbols of colour concepts. Even אֲדָמָה (the basic term for the maximally saturated chromatic colour) and its derivatives are

sometimes used to denote 'brightness', despite their clear basic chromatic denotation. Thus, in the syntagm **לְבָנָה אֲדָמָה** (Lev. 13:19, 43) it seems - for considerations of sequential structure - that **אֲדָמָה** modifies **לְבָנָה** either from the hue aspect or from the brightness aspect, or both; and the corrupt **אֲדָמוֹ עֵצִים מְפֹנִינִים** (Lam. 4:7c) - by analogy to 7a, 7b, 7d and 8a - seems to deal with the purity and brightness of complexion rather than with any actual juxtaposition of 'white/black/red' as precise or specific chromatic entities.⁴⁹

The work of Berlin-Kay has been referred to a number of times on the previous pages. It seems appropriate, therefore, to outline the hypothesis and the findings of that anthropological-linguistic study, especially since the authors supplied new impetus to research into colour terminology in recent years. Their approach and their conclusions have been, and still are, the subject of many critical evaluations; but, most important of all, they have stimulated renewed interest in the field.

Berlin and Kay started by speculating that colour terms translate too easily from one language into another to be considered 'semantically arbitrary relative to any other language'.⁵⁰ This approach was proposed by, among others, Ray,⁵¹ Gleason,⁵² and Nida⁵³ as an example *par excellence* of the non-existence of semantic universals. This doctrine of 'extreme linguistic relativity' stems from writings by Sapir and Whorf, who maintain that any language shapes and moulds the thinking of its speakers in a way that is unique to it and different to other tongues, or families of tongues.⁵⁴ Berlin and Kay believed intuitively that it was not necessarily true that each language divides the spectral continuum arbitrarily, irrespective of other languages and the conventional modes of psychophysical perception. They examined 98 languages, mainly by eliciting response to standardized colour chips that were graduated according to hue and to brightness (but represented maximum saturation) from native informants,⁵⁵ and supplemented their material by reading. The languages chosen are mostly contemporary "living" languages which represent a wide array of differing stocks or families - from Lebanese Arabic to Javanese, from modern Hebrew to Hungarian. Therefore, their attempt to find semantic universals in the colour domain is amply illustrated by

results from linguistic, geographical, and cultural environments that are completely different from one another, and in many cases have had neither substantial contact with nor mutual influence upon each other. The material investigated included only 'basic' colour terms, and certain criteria were decided upon for the purpose of the inclusion of a given term in this class or for its exclusion from it.⁵⁶

In essence, the Berlin-Kay conclusions are:

a) There is a total universal inventory of eleven basic colour terms. These are: black, white, red, green, yellow, blue, brown, purple, pink, orange and grey.⁵⁷

b) Not all languages contain all basic terms, but all of them possess terms for 'black' and for 'white'. When a language has only these two terms in its colour nomenclature it is classified as a 'Stage I' language.

c) If and when other basic terms emerge in any given language, they appear in the following order:

Stage II. 'Red' (including orange, most yellows, browns, pinks, and purples of our terminology; that is, hue, intense brightness and relatively high saturation in contrast to achromaticity and lower saturation).

Stage IIIa. 'Green' (including most blues), or:

Stage IIIb. 'Yellow' (including light greens, tans, light browns).

Stage IV. 'Green' or 'Yellow' (whichever did not emerge in the previous stage).

Stage V. 'Blue' emerges as a term defining parts of the area formerly named 'green'. 'Green' becomes 'green' as we understand it. 'Black' and 'white' are reduced to achromatic, neutral values. The area covered by 'red' loses its 'purple' and 'violet' references.

Stage VI. 'Brown'; 'yellow' and 'red' are further restricted in scope.

Stage VII. One, or more, of the remaining basic colour terms - 'purple', 'pink', 'orange', and/or 'grey' - is/are added to the lexicon. Now the foci of the basic colour terms are quite well defined by the existence of all the terms, although the boundaries usually remain fairly fluid.⁵⁸

d) There is a high degree of correlation between the evolutionary stage of the colour vocabulary and between: 1) the technological-cultural complexity of the society which uses this vocabulary, and 2) the amount of contact that society has with other, more technologically and linguistically advanced, societies.⁵⁹

e) These experimental data can be corroborated by "internal linguistic data" in order to demonstrate the relative chronological emergence of the terms, mainly on grounds of originality vs. loan words and of analyzability.⁶⁰

During the years following the publication of *Basic Colour Terms* several field experiments were carried out in order to verify aspects of the theory expounded in the book or to contradict them. Hill and Hill examined Uto-Aztecan colour terminologies;⁶¹ Snow, Samoan terminology;⁶² Heinrich, Eskimoan terminology in the Bering Straits area;⁶³ Frisch, Mohawk terms;⁶⁴ and Broch, Hare Indian terms.⁶⁵ All of these studies accept, to a greater or lesser degree, the basic Berlin-Kay theory that some colour semantic universals exist, and from here proceed to re-assert or to refute details of the theory. Further discussions involve criticism of the methodology employed, be it the nature of the colour samples presented to informants in order to elicit the spoken response,⁶⁶ or the criteria employed to define the 'basicness' of the terms.⁶⁷

The usefulness of the Berlin-Kay study for the description and analysis of colour terms in biblical Hebrew (or any other ancient or modern language) seems to be considerable, although various modifications are called for.

Although Berlin and Kay discuss only what they call 'basic' terms, other sectors of the colour vocabulary can be defined by using their criteria in a modified manner. These criteria will be discussed in the section dealing with the classification and the description of colour terms and allusions to colour properties in Part II of this study (in particular in II, A. 1.).

The 'semantic universals' described above were found to be relevant mainly to spoken 'living languages', as attested by informants. The experimental procedures used obviously cannot be applied to literary languages of the past. This fact might constitute a methodological objection to the relevance of their

findings to biblical Hebrew, and to other ancient, 'dead' languages. Indeed, other procedures have to be applied to the existing material: a careful evaluation of terms in their individual contexts, followed by the reconstruction of the whole system - that is, the mutual relations of the terms as members of a set - should be attempted. Although the nature of the material excludes the type of experimentation and eliciting of information current in the social and natural sciences, the findings can still be interpreted first by using criteria internal to biblical Hebrew, and then by comparing the results with the picture of colour fields in immediate linguistic cognates. Such a method would look for similarities, or dissimilarities, in the organization and the structure of the field rather than for a common origin of lexical items in related stocks. If such structural and evolutionary similarities can be found between biblical Hebrew and (some of) its cognates, which seems to be indicated by the material,⁶⁸ then the results can be compared to other, unrelated families of languages. In other words, the conclusions of Berlin and Kay will serve here as a working hypothesis, to be strengthened or weakened, as the case might be, by the conclusions of this study. Furthermore, by adopting this structural-comparative method the language, its speakers, and the culture it underlines can be seen in wider perspective and to a greater advantage.

The difficulties involved in assessing the biblical material will be discussed in the second section of this introduction. There, the need for preferring internal linguistic reconstruction to inter-linguistic comparison with cognate and non-cognate colour nomenclatures will be expounded, and the implications of our limited knowledge of the history and the lexical stock of biblical Hebrew will be presented.

B. THE BIBLICAL TEXT: DIFFICULTIES OF INTERPRETATION AND OF SEMANTIC CLASSIFICATION

The problems involved in interpreting biblical material and in describing it as an organized and coherent language system are generally well recognized. Therefore, only a few observations of a general and generalizing nature will be attempted here. Roughly speaking, the problems fall into three main categories:

- a) The arbitrariness of biblical language.
- b) The history and the chronological ordering of the various texts.
- c) The varied contexts of the texts.

Such is our lack of information concerning these problems that no work can be attempted without resort to conjectural hypotheses which require frequent revisions and renewed evaluations.

a) *The arbitrariness of biblical language*

Because no native speakers of classical Hebrew are available as informants, procedures of eliciting information under experimental (field) conditions are excluded. There is no possibility of controlling a sample, be it an inclusive or a random sample. Thus procedures adopted successfully for research in the realm of the life sciences or the social sciences can be only of limited use for the investigation of written languages. This presents additional complications. Matters of tone and emotive attitudes largely depend on non-verbal communication - the mood, facial gestures, body language, tone, and pitch of voice of the speaker - as much as on the non-verbal response of the listeners. These are usually an integral part of a verbal exchange, as revealing as the vocabulary chosen for a particular utterance. Written transmission lacks the vitality of speech: a certain amount of relevant data is excluded, unless again, the mood or gesture is reported by verbal description. Unfortunately, 'psychological' states or observations only appear in biblical literature because the circumstances demand them, or for didactic reasons, but only seldom for purely descriptive purposes.

So far we have listed mainly difficulties which exist in any

written material. Biblical Hebrew presents us with other problems as well. The student of OT language has no control over the manner in which his data are recorded. The spelling and the pointing alike often confound the phonetic realization of the material because:

1) Only the consonantal skeleton of the text existed until the first half of the first millennium A.D.¹

2) Fluctuation between *plene* and defective spellings - inside the same layer of composition as well as across different traditions - are so widespread that any attempt to establish a systematic description of phonetic or scribal developments might be considered an impossible task.²

3) The vowel and accentuation system developed by the Tiberian Masoretes proved to be a great leveller: it disguised many characteristics of the living language by claiming a basically unified vocalization for all texts, without distinction of date or of geographical origin. Good original MSS. are rare. As a result, what is known as the "Masoretic Text" has for centuries been the basis for research into the vocalization of biblical Hebrew but, as Ullendorff has rightly pointed out, biblical Hebrew was never spoken the way the eclectic MT is now.³

When we attempt lexical analysis our position is even more precarious than it is on the phonetic level. The scope of the texts was never decided upon by the redactors by taking linguistic considerations into account. The vocabulary of the OT is rather limited: almost a third of it consists of *hapax legomena*, while an additional part of about 8% consists of lexical units that occur only twice.⁴ To complicate matters further, some books are richer in *hapax legomena* than others.⁵ Extra-biblical Hebrew sources, from the Gezer inscription to the Qumran literature, amply illustrate the fact that the Hebrew lexicon of biblical times was much wider than the vocabulary preserved in the OT itself. In these circumstances, if a lexical unit does not appear in the bible or if it appears only once, this fact should not serve as a basis for conclusions that are too hasty. This is particularly valid when the extra-biblical evidence of the documents mentioned above, and especially of Mishnaic Hebrew,⁶ is utilized. יָרוֹק (Job 39:8) is a *hapax legomenon*. Fronzaroli suggests that the connection between

lexemes that are derivatives of יָרוֹק - יִרְקָה, יִרְקוֹר - and between the parental forms of יִרְקָה, יִרְקָה ('vegetation') is still so transparent in the OT that it seems that יָרוֹק represents a secondary, non-primary unit whose application and scope were enlarged in post-biblical Hebrew.⁷ In the Mishna it is used as a colour term for vegetation (אֶחָד - Sukk. 3:6) but also for 'blood' (Ed. 5:6) and a fowl's inner parts (Hull. 3:3), while $\sqrt{\text{ירק}}$ Hif. appears in a syntagmatic relation with human 'face' (Sot. 3:4), among other things. It would be tempting to argue not only for a later development of the basic colour term יָרוֹק in Hebrew, excluding it from OT language, but also for its later appearance as a speech (performance) lexical item, and that even before a discussion of its colour denotations - that is, its sense significance - is embarked upon. Nonetheless, the arbitrary nature of biblical vocabulary, the evidence of MH, and the existence of the Akkadian cognate *arqū* (which does not always qualify vegetation, although it exhibits a transparent etymological connection with the name for 'green things in nature')⁸ might point to a different classification of יָרוֹק in biblical Hebrew. Consequently, the structure of the colour field in certain levels of OT language should be described somewhat differently from Fronzaroli's description.⁹ A more detailed analysis of יָרוֹק, יִרְקָה, יִרְקָה, and related lexemes will be undertaken in II, B.4 (OT language) and in III, B.4 (MH) of this study (p. 100 ff. and p. 183 respectively)..

Finally, we can supplement the relatively unified tradition transmitted to us by the spelling, the pointing and the accentuation of OT texts by using non-Masoretic materials which exhibit alternative systems of pronunciation - the non-standard traditions of the Dead Sea scrolls; the Babylonian and Palestinian pointing systems; the Samaritan traditions; early Hebrew epigraphy; and post-biblical literature, which might provide solutions for lexical problems.¹⁰

b) *The History and the chronological ordering of the texts*

It is generally accepted that biblical literature encompasses about a thousand years of creative literary activity, and that many texts had a long history of oral transmission before they were committed to the written form. Needless to say, such a long span can hardly be considered a single period in the life

of any language, even if the MT would have us believe that the basic lexical and grammatical features did not change much over that period. Thus no diachronic or synchronic study of the semantics of biblical language is possible without a chronological ordering of the texts. Unfortunately, the linguistic arguments for classifying certain sections of the OT are often circular. When a lexical item such as מִשְׁחָה (tribe) appears abundantly in the Book of Numbers (90 times), it is said to be characteristic of the usage of Priestly documents. When it is found to feature 57 times in the book of Joshua, on the basis of that fact (and admittedly, cumulative similar phenomena) the two books are taken to be related not only by subject matter, but by date and authorship.¹¹ Thus the discussion of the evolution and development of מִשְׁחָה as an isolated lexical item is determined by linguistic and non-linguistic data pertaining to the P source, which is - in its turn - delineated by the same often arbitrary linguistic data of which מִשְׁחָה is a part. Again, because of the unified manner of MT presentation, conclusions in regard to dialects (= locality-determined developments) rather than chronological (= time-determined) factors are extremely difficult to reach.

Despite the above-mentioned considerations, far be it from me to reject the principles of chronological ordering of OT literature that are the result of the last 150 years of biblical scholarship. On the contrary: because evolutionary processes cannot be described if they are not anchored in a chronological framework, I shall follow the schematic division that is widely used for biblical language, albeit with minor modifications.

The scheme, as presented by Gradwohl, divides biblical Hebrew into four stages. The stages, which are characterized by historical (and not linguistic) events, are:

- 1) Pre-monarchic Hebrew (to the beginning of the 10th century B.C.).
- 2) Pre-exilic Hebrew (to the fall of Jerusalem, 586/7 B.C.)
- c) Hebrew of the exilic period (to Ezra, mid-5th century B.C.)
- 4) Post-exilic language (to the second century B.C.).¹²

This rough sketch is obviously far from satisfactory. Each stage sprawls over hundreds of years, and within each one major

upheavals - economic, social, political - occurred, upheavals that changed the language in which they were later described. Nevertheless, the scheme accounts for the major political events that undoubtedly influenced the course of the language, while a more detailed division seems impossible because of the limited corpus available. The colour terms preserved in the texts will have, then, to be studied against the chronological background of every occurrence - in so far as it can be determined in each case - within the stage it belongs to. Only after the synchronic stages have been described will a diachronic study of evolution across the stages be attempted.

Two remaining factors must be borne in mind. Firstly, differences of dialect between the Northern Kingdom and the Southern Kingdom (Stage 2) seem to be minimal. This is probably the result of the Southern scribes' language. On the other hand, the differences might have been suppressed for geo-political reasons. Secondly, MH is the natural successor of biblical Hebrew. OT books which are considered late on the basis of the events described in them (Esther, Ezra, Nehemiah) or the viewpoints they advance (Qoheleth) also exhibit linguistic material - grammatical and lexical - that is closer to MH than, let us say, to the Song of Deborah (Stage 1), or the Blessing of Jacob (Gen. 49; Stage 1 or 2). The language of the Hebrew Dead Sea Scrolls, the Hebrew Ben-Sira, the early Midrash, and the Mishna is a continuation of OT language as much as a new language. It is impossible to fix its origin in time, although it is probably concurrent with at least the language of our Stage 4. Semantically speaking, MH lost some items of biblical Hebrew, but also preserved and further developed many lexemes of the old stock, among them colour terms, while incorporating foreign words - Aramaic, Persian, Greek, and others.¹³ It even seems likely that items that were not retained in the OT, but belonged to some stage of classical Hebrew, reappear in MH lexicon. We are aware of the foreign, especially Aramaic, influence on MH, but it still is the most valuable tool we have for the understanding of evolution processes in OT vocabulary and for filling lacunae within it. Therefore, the study of biblical colour terms, like the study of any other semantic field, cannot be complete without a comparison with the cognate field in MH

c) *The varied contexts of the texts*

Dürbeck argues that a free lexical meaning attributed to any word independently of its context is not only an abstraction, but a fiction as well.¹⁴ Let us consider, for instance, biblical אָדָם. Could the פָּרָה אֲדָמָה (Num. 19:2) and the סוּסִים אֲדָמִים (Zech. 1:8, 6:2) have the same colour connotations as הַמִּים אֲדָמִים פָּתִים (2 Ki. 3:22)? Or, is the colour quality referred to in רֶאשָׁךְ עֲלֶיךָ כְּרֹמֶל וְלֹת רֶאשָׁךְ כְּאֹרֶמֶן (BH³:ל) (Song. 7:6) similar or equivalent to the אֹרֶמֶן that is almost always paired with תְּכֵלֶת (תְּכֵלֶת וְאֹרֶמֶן, Ex. 26:1)? Clearly, the אָדָם which qualifies 'cows' and 'horses' differs in its colour denotations from the אָדָם of דָּם = blood, although both appear in the dictionaries under the same entry, translated 'red';¹⁵ and when אֹרֶמֶן of Song 7:6 is found within the list bearing the translation "purple, red purple, i.e., purple thread and cloth" and defined as a "simile, of woman's hair",¹⁶ this does not seem satisfactory.

The distinction we make between the 'redness' of the objects referred to by פָּרָה and סוּסִים on the one hand and דָּם on the other stems from two basic factors: 1. We know from experience that no horse or cow skin tone is identical with the colour of blood. 2. Because it modifies words that refer to different classes of extra-linguistic entities, אָדָם should be interpreted separately for פָּרָה and סוּסִים, in contradistinction to דָּם. In other words, the denotation of the colour term is determined both by its situational context, that is, by its extra-linguistic reference, and by its linguistic context, that is, by its actual or possible collocations.¹⁷

Because of the fragmentary nature of biblical language, (a) and the uncertain chronology of many texts, (b), frequency of terms and their distribution can be relied upon only in the most cautious manner. Sums of the actual occurrences of any given lexical item should therefore be regarded as indicative of tendencies or, at the most, trends. They are only of relative importance, for their presence or absence is dictated by the context. The linguistic context is easier to define formally by means of describing syntagmatic relations and grammatical formations, thus taking care of the sense relations within the linguistic system. The situational context is more difficult to define because of its non-linguistic nature, and

because the written text is far removed from the world of references and from the actual language event itself.

The problem of understanding a passage such as Song. 7:6 might be helped by adopting a method proposed by Palmer. He suggests Firth's scheme for the classification of situational contexts, which is designed to supply the following details:

- A. The relevant features of the participants: persons, personalities.
 - (i) Their verbal actions
 - (ii) Their non-verbal actions.
- B. The relevant objects.
- C. The effects of the verbal actions.¹⁸

When we try to utilize this scheme for the utterance ראשך כארגמן עליך ככרמל ודלת ראשך כארגמן the result is as follows:

- A. The participants are a lover and his beloved; the general background, a shepherd's life? or, perhaps, city life (the many luxuries cited)?
 - (i) The speaker describes the head and hair of his beloved.
 - (ii) No non-verbal action is reported.
- B. Head, hair - depending on the meaning of דלת - is described in terms of colour, but the reference does not make immediate sense, for no natural hair is purple-coloured.¹⁹
- C. The effects are not reported.

It is clear that we have progressed only a little: the main problem - the reference of כרמל (= כרמיל) and ארגמן in this context - has yet to be elucidated by determining the level of speech. Is it formal, colloquial, dialectal, idiolectal, legal, and/or poetical? And, as we are dealing with literature, we must also ask what is the literary genre of which the utterance forms a part, and which might influence its level or style. Indeed, the literature of the OT includes many types and genres - from folk sagas to historiography and legal documents, from poetry to wisdom teaching. Lexical items and their meanings may be peculiar to certain types of literature as much as to certain chronological periods. Once we recognize that Song. 7:6 is part of a poetical work, in addition to the other information we possess about its components, we can begin to consider the appropriate solution for the problem of ארגמן and כרמל in that

particular context. Poetry is characterized by emotive meanings - no identity with the technically precise **ארגמן** should be sought: metonymy of reference (**ארגמן** as sub-heading of **אדם**) can account for this unique usage which belongs to the performance level of the language, but not to the competence level. Incidentally, this understanding would render any textual emendation of **ארגמן** unnecessary.

To summarize: any linguistic utterance should be classified in terms of its linguistic context and of its situational context. In the case of 'dead' literary languages the literary context (the typology of the literary genre) can form the basis for additional observations. The latter may determine the speech context, the level of diction, and the meanings that are either unique to a given utterance or that, through a cross-section of utterances whose contexts are thus grouped, serve as signifiers that are widely accepted and recognized as such.

C. SOME SEMANTIC TERMS AND THEIR USAGE

"The terminology of the subject (e.g., semantics) is rich - and rather confusing, since it is used without any high degree of consistency and uniformity between different authors. It is inevitable therefore that the terms introduced ... will not necessarily carry the same implications as the same terms employed in other treatments of semantics".

John Lyons, *Introduction to Theoretical Linguistics*, p. 403.

a) *Sign and Referent, Sense and Meaning*

A *verbal sign* is a lexical unit, be it a word or a similar speech unit (See b) below, "Word and lexeme") which constitutes a part of a linguistic entity and communicates a message concerning some non-linguistic entity, or state. (Verbal signs like אֵל, עַל, י have no one-to-one equivalents in the non-linguistic world. Because of their exclusive existence within the realm of language their functional status is fundamentally different from that of 'fully meaningful' lexical units. The following paragraphs focus on the latter - that is, the lexical type - because of the semantic orientation of this work). It is a sound image reflected in, or deduced from, written forms. Used thus, our 'sign' is the equivalent of de Saussure's 'signifier',¹ Ogden and Richards' 'symbol',² or Berlin and Kay's neutral 'term'.³ The *referent* is the external event, or object, which is described by the linguistic sign. As such, it is the equivalent of de Saussure's 'signified'.⁴

In order to illustrate the point let us briefly consider biblical Hebrew אֵל. As it stands, it is a sound image transmitted by script, a verbal sign which appears in a limited number of contexts. The purpose of this study will be to define אֵל in its relationship (i) to other signs, from אֲדָמָה, אֲדָמָה, אֲדָמָה which have an external formal association with אֵל לֵבָן which has a content relation with it - this line of investigation deals with 'sense', "... the complex system of relationships that hold between the linguistic elements themselves";⁵ and (ii) to the non-linguistic world of experience. Here the questions that should be asked are: What are the points of reference of אֵל in the visible world? Can it be defined by

actual occurrences of the sign? What are the implications for other sets of 'sense' and for other 'references'? Palmer makes a convincing case for the inclusion of both sense study and reference study in the scope of semantic investigation.⁶ His conclusions are here accepted as the basis for discussion. As Nida summarizes, "The study of semantics is meaningless apart from the cultural context of usage. On the other hand, semantics cannot be divorced from formal structural units".⁷

b) *Word and Lexeme*

Dictionaries deal with *words*, and therefore it seems reasonable to accept the *word* as the basic unit for semantic treatment. Nevertheless, if we are to use 'word' as a semantic term some problems should be noted. The term is widely used in at least three ways:

- (i) to denote a sound unit whose boundaries are sometimes quite elusive. This is the 'phonological word'.
- (ii) to denote an orthographic unit that conventionally has a space before and after it.
- (iii) to denote a lexicographical heading, while the various inflected forms are traditionally considered as different 'forms' of the same 'word'.⁸

In view of this ambiguity, the term 'word' here will be reserved for the phonological unit as it is represented by the orthographic unit (i, ii). The third sense of 'word' will be replaced by the term 'lexeme' in order to distinguish between a basic lexical unit and the related inflexional forms which are generated by the grammatical process of the language.⁹

Therefore, different patterns of the same root - whether nominals or verbs - of one series (like אָדָם, אִדְמָה, אִדְמוּנִי, אִדְמוּ, אִדְמוּת) will be called 'lexemes', while inflexional forms (like אִדְמוּת, אִדְמוּנִי, אִדְמוּ, אִדְמָה) will be considered 'words'. Thus 'words' are understood to be derived, through various processes, from 'lexemes', and to exhibit some formal similarities with their 'base'.

c) *Syntagmatic Relations*

A *syntagm* is a language unit that is larger than a word but smaller than a sentence. It includes the immediate linguistic elements that surround an investigated word. By isolating

recurrent patterns through the listing of the various syntagmatic combinations a word exists in within the text the contexts can be systematically arranged, and both aspects of meaning - sense and reference - may become clearer. Therefore, whenever a colour term is approached a list of the syntagmatic relations it enters into is supplied as one of the tools for defining its meaning. To illustrate this point: If תְּכֵלֶת וְאַרְגָּמָן appear in biblical literature mostly as a pair, this might be meaningful in some way. On the other hand, the limited distribution of אֲרָגָן as an allomorph of אַרְגָּמָן might be indicative of the latter's slot within this particular area of OT language.

d) *Semantic Fields*

Ullmann defines the *semantic field* as "a closely knit and articulated lexical sphere where the significance of each unit is determined by its neighbours, with their semantic areas reciprocally limiting one another and dividing up and covering the whole sphere between them".¹⁰

Donald accepts this definition for his study of the field of folly¹¹ for two reasons: (i) Its usefulness for the understanding of words, mainly in 'dead' languages. (ii) Its assistance for the understanding of the internal development of the language and the history of culture and ideas.¹²

Indeed, the definition seems useful precisely because it is so loose, and because it requires the arrangement of lexical stock according to both sense and reference hierarchy. According to it the field of colour should include not only all lexemes that refer to chromatic qualities, but also those that refer to properties of brightness and saturation which are felt to relate to chromatic qualities. Therefore the field includes lexemes which denote achromatic colours - 'white', 'black', 'brown', 'grey' - and so also partially overlaps with its neighbour in the semantic mosaic of the language, the field of light and darkness. In OT language this is demonstrated by the transfer of lexemes from the latter to the former (cf. חֹרֶךְ*, √חָרַךְ, √חָשַׁךְ), without losing their foothold in their original field. The area within the field itself is divided into sectors. The heading for the sectors are supplied by their referents. אֲמָץ*, חֲמוּץ, אֲרָמִים, and שְׁחִיף* form a group that is distinct from לָבָן, צָח, and זָךְ*, or שָׁחַר, צָהָב; on the other hand, it is the arbitrary sense

relations within the sector itself that decide the meaning (reference) of each term. Again, a certain overlap between sectors is not only unavoidable, but also necessary. The absence of some terms may be overcome by directly invoking the object which characteristically bears the relevant colour, or this method may be used as a stylistic device (Isa. 1:15,16). Finally, some lexemes are not used as direct colour terms although they exhibit paradigmatic or formal associations with 'full' colour terms (e.g. names for precious stones, personal names or place names). These too will be included, although they belong to the boundary of the colour sphere.

e) *The Diachronistic vs. Panchronistic Approach to the Description of Semantic Processes.*

Ullmann describes a *diachronic* (semantic shift) law as the result of five variable factors:

- A. sense (or word).
- B. word (or sense).
- C. temporal factor.
- D. spatial factor.
- E. set of conditions.¹³

In other words, after we have investigated a certain term we might arrive at the conclusion that A becomes B, or means B, in a period C, within a spatial boundary D, under circumstance E. Now, when we try to apply this procedure to OT literature we may find that our knowledge of the material is so inadequate as to render the procedure almost useless. The difficulties of establishing the chronology and the geographical origin of many texts were touched upon in the previous section (pp. 20-22) of this introduction; in many instances we shall find that the variables Ullmann refers to as C and D cannot be determined with certainty. The lexeme צַח appears in biblical Hebrew four times. Of the three nominal occurrences two (Isa. 18:4; Jer. 4:11) have no colour associations, as demonstrated by their syntagmatic relations (חם צח, רוח צח respectively) and by their contexts. The third occurrence is defined as a colour reference by its syntagmatic proximity - הוֹדִי צַח וְאֶרֶץ (Song. 5:10) - although the colour referent is not clear. The verbal lexeme צָחַח (Lam. 4:7) is defined by its syntagmatic position and its context as an equivalent or partial equivalent of לָכֵן.¹⁴ This last statement of referential meaning does not solve the problem

of the חצ referent in Song. 5:10. Furthermore, even if we date Lam. 4:7 with relative accuracy (Period 3: after the fall of Jerusalem), the lack of additional statistical evidence concerning the same lexeme does not allow us to make any generalisation about the time of the shift חצ: 'glowing, clear'¹⁵ → צח: לָבֹן or similar to לָבֹן, for we do not possess enough information about C (time) and D (space). At the most, a statement about the meaning of צחה in Lam. 4:7 can include the tentative generalization that צחה and זכו become - or function as - parallels to לָבֹן when associated with שָׁלֵג and/or חֶלֶב, which are known to function as specifications of לָבֹן elsewhere (Ps. 51:9 - מִשְׁלֵג אֲלֵפִיר; Isa. 1:18 - פִּשְׁלֵג יִלְבִּינֵהוּ; Gen. 49:12 - לָבֹן שֶׁגִּים מִחֶלֶב). This tentative statement is achronistic in nature: it only takes into account factors A, B, and E of the list above, without attempting synchronistic or diachronistic distinctions. It is what Ullmann calls the "panchronistic approach".¹⁶ This approach will be resorted to when a synchronistic - diachronistic description of a given problem does not seem feasible for lack of sufficient information. The same panchronistic approach will, perforce, be employed for the analogous presentation of the colour field in MH and its scope *vis-à-vis* the field in OT literature (Part III).

D. ETYMOLOGY: ITS VALUE FOR THE STUDY OF THE COLOUR FIELD

In his article 'Etymology and the Old Testament'¹ Barr distinguishes the following types of scholarly etymology:

- A. Prehistoric reconstruction (pp. 4-7).
- B. Historical tracing (7-9)
- C. Identification of adoptions from other languages (9-11).
- D. Analysis of words into component morphemes (11-15).
- E. Use of a cognate language to discover the sense of a word in Hebrew (15-16)
- F. Comparison of institutions with cognate names (17).

Gradwohl published his study of colour terms in the OT, *Die Farben im Alten Testament*, in 1963. His work leans heavily on etymological evidence, mainly of the types A and E listed above. Whenever possible he supplies the cognates for each entry in other Semitic languages; then he proceeds to discuss individual colour terms by grouping them chromatically and by listing the evidence of the ancient VSS (Greek, Latin and Aramaic) as guidelines for understanding the referents of the terms.

The material he has collected is no doubt valuable if taken as a basis for further study. However, his method has many shortcomings. This type of etymological approach is, of course, atomistic: it deals with single lexical units, not with sets of units, whereas it is the existence of other terms - alongside the term discussed in each case - which delineates its area and defines its scope. Etymological exercises, especially of the type Gradwohl uses, are often of a hypothetical and reconstructive nature. They tend to search for the origins of a lexeme while semantic investigation tends to look in the opposite direction, from the historical beginning of a lexeme (as documented in the text) onwards, inside periods of time or across them. The history of לָבַן in Hebrew, from its earliest occurrences to MH, depends less on the hypothetical origin of the term, but rather more on the actual contexts in which it appears. Shifts of meaning of individual lexemes cannot be described in backwards-oriented, etymological terminology; nor is it sufficient to summarize the development of OT colour terminology by way of dividing the findings into four schematic stages (pp. 91 ff.). Finally, the cognate terms Gradwohl uses are taken from the

standard biblical dictionaries, where the cognates appear out of their original contexts. The dictionaries are not always right in their definitions or etymological descriptions (cf. the etymology of $\sqrt{\text{עבצ}}$ - Gradwohl, p. 61; and Blau's comment in a review of Gradwohl's work.²⁾

It seems, then, that etymological study, especially of types A and E, is of limited importance only if not used as a base for further investigation. Therefore, although the information Gradwohl has painstakingly collected will be gratefully utilized here, the emphasis will be away from the origin of single colour terms and towards their development, in an attempt to uncover the pertinent linguistic and non-linguistic variables that determine the structure of the field as a whole and the respective position of each component within it.

E. THE FIELD OF COLOUR TERMS: A PROPOSED STRUCTURE

Part II of this study will deal with colour terms in biblical Hebrew, while part III will deal with the relevant terms in MH. The criteria for the organization of the material into structural units covering the field will be given in the first section of part II and are applicable to part III as well. Hence, a short outline of the classification employed will suffice here.

Gradwohl organizes OT material under chromatic headings, that is, all words that seem to mean 'red' are grouped together, and those denoting 'white', 'black', are similarly collected and dealt with as a group, from so-called adjectives to verb forms and to place names. In a different chapter he deals with dyes and pigments; and, later still, with the generalization of the material into stages of development.

This arrangement seems to me unsatisfactory. It is not structurally meaningful, although the internal ordering from אֲדָמָה to חֲמֹר, חֲמוּץ, צָהָב, צָהָר, פֶּאֶרֶז is somewhat indicative of the relative weight of each term in its sector. The principle of chromaticity is taken to be the chief motivation for the creation of colour terms, although this is not valid for every case. There is no firm distinction between direct colour references (אֲדָמָה) and indirect colour connotations (אֲדָמָה). Lastly, the organization of the sectors as mutually exclusive complementary units is far from clear: 'red' and 'black', for example, are discussed separately; as a result, there is no awareness of the non-chromatic denotations of various colour terms.

An alternative method of organization has been chosen here. The primary terms, those that are recognized to have the widest scope, are treated first. These "blanket terms" are usually easy to spot: they enter a great number of syntagmatic combinations, are widely distributed throughout the OT, and are applicable to lexemes that belong to many fields. It is important to list and to analyze them as a group because they delineate each other and supply the framework for other terms that are their subordinates within the field hierarchy. Biblical אֲדָמָה (and its direct verbal derivatives), שָׁחַר, לָבָן - and perhaps צָהָב and יָרוֹק - belong to

this primary group. Their sense is determined by their being mutually exclusive, while their non-linguistic references depend chiefly on the listing and on the interpretation of their contexts.

The next, lower layers are those of secondary and tertiary terms. These are more restricted in scope than the primary ones and are often - and quite transparently - derivatives of the former (שָׁחַרְחָר → שָׁחַרְחָר*, אֶדָם → אֶדָמָה*). The internal territory of each colour sector - the combination of hue, brightness, and saturation - is divided into overlapping sections by these subordinate terms. All secondary terms will be grouped together under the heading of the relevant reference. Thus אֶדָמָה, אֶדָמָה, אֶדָמָה* are secondary subordinates to אֶדָם; and שָׁחַרְחָר*, חָגַם to the שָׁחַר sector. The same procedure will be applied to tertiary terms.

The fourth category is that of paints, dyes, dyeing materials and dyeing. These too will be grouped according to their colour references wherever possible. The fifth group is that of lexemes that have colour connotations although, in contradistinction to the first four groups, the latter cannot be considered direct or "full" colour terms.¹ The material that belongs here ranges from proper names (לִבְנֵי, קִדְרִי) to names of objects (לְבוֹנָה, עֹרֶב), metals and gems.

The next group consists of terms for speckles, stains and multi-coloured phenomena. These invoke a spatial as well as visual reference. Still, they possess sufficient formal features (בִּרְדָּה*, נִקְדָּה*, עֵקֶד) or referential associations (חֲבֵרֵי נִקְדָּה, רִקְמָה) to make them part of the field.

This structural framework - a number of categories of direct colour terms arranged in a descending order, followed by groups of indirect categories - will be observed for the description of the field in both biblical Hebrew (Part II) and Middle Hebrew (Part III). In addition, an appendix will deal with problems that are specifically relevant to biblical language, namely:

- 1) Remarks on the morphological pattern $\bar{p}\bar{a}\bar{o}l$ (the so-called מַשְׁקַל תַּאֲרִי צַבְעִים in Hebrew).
- 2) General considerations concerning the relations between word classes - 'verbs', 'adjectives' and 'nouns' - in biblical Hebrew. A cursory glance in any biblical dictionary would reveal that verbal forms, whenever they exist, are listed prior to the

listing of nominal forms that derive from the same root. Within the colour field this practice is not adequate: nominal forms precede verbal forms and generate them. The status of colour terms as 'adjectives' is far from certain in some instances (Gen. 25:30 - הָאֵדָם הָאֵדָם הַזֶּה נָא מִן הַלְעִיטָנִי), while some 'verbal' combinations are equal not only in syntactic function but also in deep structure to the analogous 'adjectival' surface structure. If we compare עוֹלֵי שָׁחַר (Job 30:30) to שְׁחֹרָה אֲנִי (Song. 1:5), especially when these are isolated from their complements and syntagmatic neighbours, we find that the difference between the two does not go beyond the surface structure. These considerations cause doubts as to the traditional division of OT stock into 'parts of speech' and the inter-relations between the traditional categories. These doubts will be aired in the appendix (p. 172 ff.).

In part III the fields of direct colour terms (the first four categories) in biblical Hebrew and in MH will be compared in an achronistic manner. Following a summary of the conclusions of the main body of this study (IV), a final chapter (V) will present a few of the aspects relevant to the history of the unnatural, conscious process of renewal and invention of colour terminology in contemporary Hebrew, a process that relied heavily on the borrowing of biblical Hebrew, MH, and modern foreign terms. Thus old word stock was - and still is - brought back to linguistic life and supplemented by new terms that have become necessary because of temporal, cultural, and technological changes.

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II BIBLICAL COLOUR TERMS

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A. CRITERIA FOR THE CLASSIFICATION AND DESCRIPTION OF COLOUR TERMS AND OF COLOUR ALLUSIONS

1. Primary Terms

I chose the attribute 'primary' rather than 'basic' because the connotations of 'primary' seem to be wider than those of 'basic': 'primary' indicates both the significance of a term as a dominant factor together with its genetic originality as a specific sign for its referent.

Berlin and Kay set the following criteria for determining the "basic-ness" = (primary status) of any colour term:¹

a) It is monolexemic: its meaning is not predictable from the meaning of its parts. In English, this criterion will exclude expressions such as 'bluish', 'lemon-coloured', 'the colour of ...'. By analogy, lexemes like אדמ(ו)ני (Gen. 25:25; 1 Sam. 16:12, 17:42) and שחרחרת (Song. 1:6) are eliminated from the 'primary' group.

b) Its signification is not included in that of any other term. 'Crimson' and 'scarlet', which for most speakers of English mean 'a type of red', are excluded by this criterion. Thus even before we define שני as a 'dye' and/or 'dyed material' we cannot attribute primary status to it, as Isa. 1:18 - ... אִם יֹאדִימוּ כְתוּלַע ... אִם יִהְיוּ חֲטָאִיכֶם כְּשֵׁנִים restricts שני (thus the ancient VSS and the IQIsa^a) to a type of 'red'.

c) Its application is not restricted to a narrow class of objects. 'Blond', which can be applied (only) to hair and complexion, is thus eliminated. Similarly, חם (Gen. 30:32, 33, 35, 40), which is used to only describe the appearance of sheep, is excluded from the 'primary' category even before considerations of distribution, reference, or status *vis-à-vis* other terms are embarked upon.

d) It must be psychologically salient for informants: the references of the signs should be easily recognizable and adhered to without doubt. Border cases like 'bluish', 'blue green' are excluded by this criterion as well. Berlin and Kay state that these four criteria are sufficient in most cases, but that four additional ones might be applicable to a minority of difficult cases:

e) The doubtful forms should have the same distributional potential as previously established basic terms. In English, the fact that the suffix '-ish' can be added to 'red', 'white', 'green', 'blue', defines the whole series as a 'basic' one. Applied to Hebrew, this would mean that *שחרור**, *אדמדם*, and even *שחר*, *אדם*, *ירק* point back to primary forms that underline them - *אדם*, *ירק*. The criterion may be especially helpful for establishing the status of *ירק* (Job 39:8) which - as it stands - is a *hapax legomenon*.

f) Colour terms that are also the name of an object which is characterized by that colour are suspect ('gold', 'silver', 'ash', but not applicable to 'orange'). In other words, the link of transparency between a colour term and its possible origin should be severed before it has become a primary term.

g) Recent foreign loan words may be suspect: they might be an addition, perhaps synonymous for a more established term. This could be one of the criteria for deciding upon the status of the lexeme *חור*, which is a *hapax legomenon* in OT Hebrew (Isa. 29:22 - *פניו יחורו*, although it is possibly related to *חור* - Esth. 1:6, 8:15; *חור* - Gen. 40:16; and *חור* - Isa. 19:9), while undoubtedly of a primary position in the field of colour in Aramaic.

h) When it is difficult to determine the monolexemic status, morphological complexity can serve as a secondary criterion. Thus, this would be an additional argument - if one is still needed - for the placing of *אדמדם*, *שחרור**, *ירק* outside the range of primary terms.

When applying this procedure of multiple criteria examination to biblical Hebrew and to its cognates, the differences between Berlin-Kay's material and ours must be emphasized. Whereas they deal principally with 'living' spoken languages, we are dealing with ancient and, for us, literary languages. Therefore, some modification of their criteria is called for if it is to be adopted as a basis for the discussion and analysis of biblical material and its cognates.

Hebrew lexemes which belong to the nominal or the verbal classes can hardly be considered "monolexemic". A Hebrew lexeme has at least two basic components: a consonantal root; a pattern that includes vowels; and, in many cases, prefixes and

suffixes. Because the colour terms אָדָם, שָׁחֹר, פָּרָד* follow the pattern $\bar{p}a\bar{o}l$ we are relatively certain, even without previous lexical or contextual information, that they are nominals, for the membership of verbal lexemes in a category that follows the same pattern is restricted to a small group - קָטַן, יָגַר, יָכַל - of the Qal formation. Hence, at least a certain amount of information - the syntactical 'meaning', the clue to the possible ways according to which a given lexeme might function in any sentence - is inherent in every form. Secondly, shades of meaning might also be predicted from the formation of the word: verbs in the Hif. formation might have a causative meaning (וְלָלַךְ, Dan. 11:35, if this is a Hif. form), or that of 'enter a state', or 'become' (וְלָלַכְנוּ - Joel 1:7; וְלָלַכְנוּ - Isa. 1:18; וְלָלַכְנוּ - Ps. 51:9). It should be stated, then, that 'full'² Hebrew lexemes - be they verbs or nominals - are partially predictable from the meaning of their parts (pattern). Therefore, criterion a. of the Berlin-Kay list should be modified to exclude structural or 'pattern' meaning from the determination of monolexemic status for primary colour terms.³

Criterion b. should be brought to its ultimate conclusion. A primary term functions as a 'blanket' term of a wide and general scope. While its full range of reference is not included in other terms, segments of the range of sense and reference it occupies can be specified by secondary or tertiary terms.

The wording of criterion c. should be emended on semantic, although not biblical, grounds. A term cannot be applied to an 'object'. In other words, a term is primary if it would potentially enter syntagmatic relations with a varied and relatively unrestricted amount of lexical items.

Criterion d. is of no real use for the research of an ancient, 'dead'⁴ language. Instead, the frequency of appearance of a term, together with its distribution within texts of various types, should be examined cautiously.⁵ In the absence of information gleaned directly from the speech community, the picture the texts convey may be distorted and incomplete: our sources are limited, and the motivation for preserving them was not influenced by linguistic considerations.⁶ Lastly, it must be remembered that Berlin and Kay investigated synchronic

linguistic states, whereas the biblical material requires a judicious mixture of synchronistic, diachronistic, and panchronistic approaches.

To summarize: a colour term will be categorized as primary when, upon analysis of its occurrences, it is found to:

a. be semantically monolexemic (although not necessarily so from the morphological, structural aspect).

b. function as a 'blanket' term denoting a wide range of referents.

c. be applicable, or potentially applicable, to a varied amount of word signs of various types.

A primary term has to comply with all three criteria; in cases of doubt, additional criteria (e-h) can be employed to clarify the structural status of the term in question within its set.

2. Secondary Terms

Next in the structure of the field come the secondary terms. The criteria used for determining which colour terms are of a secondary, and sometimes supporting nature are:

a. When a term is monolexemic but does not comply with criterion 1.b (unlimited signification) and/or 1.c. (unrestricted specification) - it will be classified as secondary. Thus אָמץ* (Zech. 6:3,7) or שָׁרֶק* (Zech. 1:8) cannot be considered 'primary'.

b. When a term is morphologically derived from another term which has already been established as 'primary' (in accordance with criteria 1.a, 1.b, and 1.c above) and is transparently connected to the latter, it is classified as 'secondary'. (Thus אָרִים < אֲדָמָה, אָרִים from the non-attested אָדָה*).

c. The signification of the secondary term is included in that of a primary term. Combining criteria 2.b above and this one, אֲדָמָה must be included within the אָרִים sector and שְׁחֹרֶחַר* within שָׁחֹר, quite apart from the problem of their particular references within their respective sectors. If 'snow' (Isa. 1:18) and 'milk' (Gen. 49:12) are used for specifying לבן, then מַחֲלָב ... צֹחַח / מַשְׁלֵג ... צֹחַח (Lam. 4:7) might function - within that particular comparative structure - as specifications of לָבָן.⁷ Hence, the reference of a secondary term is a segment of that of the primary term to which it is subordinated genetically

(אֲדָמָה < אֲדָמָה) and/or semantically (זָכָה, צָחָה to לָבֵן in Lam. 4:7).

d. The distributional potential of a secondary term is more restricted than that of a primary one: it is found in less varied types of syntagmatic relations and its linguistic contexts are restricted. יִרְקָה defines נָגַע (Lev. 13:49, 14:37) and qualifies יִרְקָה חֲרוּץ in חֲרוּץ (Ps. 68:14). It is applied to lexemes that refer to deterioration of materials (cloth or leather - Lev. 13:49; a building - 14:37) on the one hand, to a type of gold on the other hand. The restricted usage could have been considered a decisive argument for classifying יִרְקָה as a 'tertiary' term. However, the weight of cumulative evidence - together with criteria b. (derivation, whether directly from יִרְקָה or from יִרְקָה through analogy with אֲדָמָה) and c. (inclusiveness) - is in favour of placing the term in the secondary strata of its sector.⁸ This technique - the employment of multiple criteria - minimizes the danger of drawing too hasty conclusions from factors of frequency and distribution. Conversely, as long as the term appears in at least two different linguistic contexts, the need to resort to arguments of accident and possible arbitrariness of biblical stock is checked somewhat. Because secondary colour terms are more restricted and specific in denotation, they tend to be numerous: primary terms have no complete, or nearly complete, synonym that can be substituted for them in all their applications, but secondary terms either divide the territory of their superordinate term among themselves or share it with tertiary terms.⁹

3. Tertiary Terms

The terms which constitute the next layer of the field are labelled 'tertiary' in order to convey their structural relationship to the first two, and higher, categories. This label, however, is recognized as not fully satisfactory because it does not define the class adequately. As the members of this group are a motley collection of lexemes of diverse semantic and morphological status, they are difficult to categorize decisively. Possible criteria, or rather guidelines, which apply to this group are:

a. A tertiary colour term is a relatively rare term. Any *hapax* could be a natural candidate for such a classification -

cf. צָחָר*, Jud. 5:10 - unless other criteria override the argument of infrequency, in this instance the related proper name צָחָר, which is the name of three male persons from different periods and descent (Gen. 23:8, 25:9, 46:10; Ex. 6:15; and 1 Ch. 4:7, K יִצְחָר, Q וִיצְחָר) and the doubtful צָחָר (Ezek. 27:18). The related forms might have a bearing on the classification of צָחָר* as a secondary rather than a tertiary term. In other words צָחָר*, like other rare terms, is a borderline case. At the same time it should be noted that in such extreme cases the argument of rarity is more important than monolexemic status.

b. Compounds such as the English 'blue-green' or 'greenish-blue' are categorized as tertiary, especially when one of their components (or both) is (are) a secondary term. לֶכֶן אֲדָמָה* (Lev. 13:19, 24, 42, 43) is a combination of a primary (לֶכֶן) and a secondary (אֲדָמָה) term, both of which belong to separate sectors of the colour field. לֶכֶן אֲדָמָה itself is juxtaposed to לֶכֶן (v. 24) when the latter appears on its own in the same context of 'skin lesions'. Hence, לֶכֶן אֲדָמָה has a specific denotation which is expressed by a combination of lexemes that are otherwise placed higher up in the hierarchy of colour terminology. It follows, then, that לֶכֶן אֲדָמָה is a subordinate both of לֶכֶן (primary) and of אֲדָמָה (secondary).

c. The signification of the tertiary term is limited and its application restricted. חֲכָלִילִי (Gen. 49:12) is defined as a possible colour term by its parallel לֶכֶן שֹׁנִים מִחֲלָב. As it is used only in conjunction with עֵינַיִם and occurs only once as חֲכָלִילִי and once in the derived form חֲכָלִלוֹת (Prov. 23:29, again in the same linguistic context), it is listed as tertiary on the grounds of criteria a. (rarity), and c. (restricted scope).

Quite often the demarcation line between secondary and tertiary terms is quite elusive, mainly because of the limited volume of OT literature and the huge amount of *hapax legomena*. The actual instances in the texts are sometimes not sufficient for placing any given term within the proposed structural framework. In such cases of doubt (see צָחָר* above) the relevant forms are cited and discussed under either the 'secondary' or the 'tertiary' headings, and the doubts concerning them duly noted.

4. *'Man Made' Colours: Painting and colouring, paints, dyes, dyed materials, and pigments.*

Terms for the activities of painting and dyeing are extremely rare in biblical Hebrew. They are treated here because: 1) $\sqrt{\text{מָרַח}}$, $\sqrt{\text{מָשַׁח}}$, and $\sqrt{\text{צָבַע}}$ * (not attested as a verb in the Hebrew OT) are general in application, and hence cannot be included under the heading of a colour reference in any level of the field; and 2) Other terms, although more specific in colour reference (פְּשִׁילָה ... וְשִׁדָּה , Dt. 27:2, 4), are quite rare. Each term will be discussed separately. Structuralization will not be attempted because of the scantiness, the low frequency, and the doubtful interpretation of the relevant lexemes.

In regard to terms for dyed materials, dyes, and pigments, the situation is different. A few basic assumptions concerning the classification of this category are given below.

a. Some of the lexemes referring to 'dyes' and 'paints' have a dual sense. They refer to the dye or paint itself, the colour properties of which are its most significant characteristic, but also to the dyed material, the end product of the process of using the dye or paint. This is especially true in the case of textiles.

b. Occasionally one or the other of the names acquires a wider referential meaning, especially in poetic diction (שָׁנִי in Isa. 1:18). Broadly speaking, these names of dyes and paints are potentially secondary or tertiary colour terms.

c. The existence of these terms in the language is generated by (non-linguistic) cultural influence to a greater degree than in the case of other strata of the field. Like other 'technology words' they were often borrowed, together with the technique for preparing the product they denote, from the language of the people who made the product known to the Hebrew speaking community. Thus the terms often transcend linguistic boundaries, while the product they denote travels across geopolitical borders.

d. Terms denoting paints, dyes and dyed materials are monolexemic. They might function as subordinates within the referential sphere of a primary colour term (אָדָם under שָׁנִי). Their application is restricted - אֲרָגָמָן and other lexemes which

refer to colourful textiles will mostly be found in the environment of words for garments and cloth, while the occurrences in Song. 4:3, 7:6 are special cases of poetical emotive usage. As terms for textiles are sometimes employed to convey colour proper, and because colour properties are significant for the distinction of the concepts these terms refer to - they are considered colour terms of a unique type. Because of their restricted applicability and specific nature, their place in the field hierarchy is below the first three groups (unless they are not used to denote dyes or dyed materials, as in Isa. 1:18, Song. 4:3, 7:6). Because non-linguistic evidence suggests that their references may be included in primary colour terms - e.g. *כרמיל*, *ארגמן*, *שני* as types of *אדם* dyes - these lexemes will be internally arranged under the *אדם*, *לכן*, and so on referential headings.

5. Indirect colour connotations

This group includes lexemes which are not colour terms, in the sense that they do not refer directly to any colour quality of the concept they denote. Nevertheless, they are associated with colour notions through phonetic similarities or semantic links.

a. These may be: Proper names which are phonetically related either to established or to lost colour terms. This group is subdivided into: 1. Personal names (*לכן*).

2. Place names (*נחל שרק*).

b. Some names for objects (or concepts) exhibit phonetic or semantic links with a colour term (*לבונה*, *חמור*, *פצים*). In some cases (*פצים*) these words preserve a colour reference derived from a term which might have once been a colour term in Hebrew or in a cognate language, but which does not function as such in biblical Hebrew.

c. Terms for metals and precious stones (*ברקת*, *אדם*, *פסדה*). Strictly speaking this is a sub-group of b; however, these lexemes are often borrowed from a source language into another as a result of the introduction of the object they name into a new society. Therefore, I felt that they require a separate category. Finally, while the motivation for indigenous Hebrew words (such as *אדם*) is phonetically transparent, in order to find the 'colour' lineage of borrowed terms (such as *פסדה*) one

should turn to etymological operations of the types A, B, C, and E of Barr's classification (pp. 31 f. above).

d. Entities such as כוֹשִׁי, צֶמֶר, שֵׁלֶג, חֶלֶב, יֵלִין are associated with colour notions through their most typical visible feature(s). They are employed - with or without a direct colour term - for communicating colour perception or colour imagery: thus we have כְּצֶמֶר יְהוּ / כְּשֵׁלֶג יִלְכִּינוּ (Isa. 1:18); מִצֶּרֶעַ כְּשֵׁלֶג (2 Ki. 5:27; and twice more the fem., מִצֶּרֶעַת כְּשֵׁלֶג); חֲכִילִלִי עֵינַיִם מִיֵּין (Gen. 49:12); and others. These descriptions of colour by way of a comparison to a lexeme referring to an object of a well-known colour can become a literary convention, even an idiom. Such an idiom may replace a direct colour term, especially within the framework of poetic diction - as, for instance, in Jer. 13:23, הִיחָפֵךְ כוֹשִׁי עוּרֹו וְנִמְרַח חֲכִירָתִיו. Furthermore, these same terms might serve as the base of proper colour terms at some later stage in the development of the language. Gradwohl, for instance, argues for regarding לָבָן as, first and foremost, the colour of milk.¹⁰ These lexemes supply us with additional information about colour perception, information that can be as valuable as the information that can be gleaned from direct terms. Therefore, these analogies are fairly important for determining the referents of 'full' colour words.

In the previous sections terms were arranged under the heading of the primary term in which their reference is included, insofar as this was possible. This principle of internal order will be adhered to in this section too. Lexemes that relate to the same root will appear together, unless one or more of them belong to different categories.

6. *Terms for speckles, stains, and multi-coloured phenomena.*

These refer to the appearance of an area of colour, the identity of which is not necessarily specified, against the background of a different colour space. There is no colour reference that could be employed as a common denominator for all of them: rather, some (like נִקְדָּה*) seem to be linked more transparently to the field of space and shape than to colour. Where specific colour references seem to be denoted by the term (נִקְדָּה?), they are difficult to define because of their relative rarity and limited applicability. For want of better criteria

the terms are arranged in two morphological groups:

- a. $pa^{\bar{c}}ol$ forms (פֹּרֶר*, נִקֵּר*, עֵקֶר*).
- b. Others: טֹלָא*; perhaps עֵטוּף* and מִקְשֶׁר*; נִמֵּר and its derivatives; חֲכַרְבוּרוֹת*; בָּהֶק; פִּהְרֵת; רִקֵּם and רִקְמָה*.)

The two most important questions that are relevant to each term within the b. group are: 1) Is it a colour term at all, or is its reference more indicative of spatial than of colour arrangements? 2) If - and when - a colour reference of some sort is established, can we define the referent, so that the term be assigned to its proper place under the suitable primary heading?

B. PRIMARY TERMS IN THE OT

0. אָרְ(וֹ)ם , לָבָן , and שׁוֹחַ(וֹ)ר (and their verbal derivatives) are the only lexemes that meet the triple criteria of (a) monolexemic status; (b) exclusive signification, and (c) unrestricted applicability.¹ אָרְ(וֹ)ם appears in texts which are attributed to stages 2, 3 and 4 of biblical Hebrew - that is, the monarchic period, the exilic period, and the post exilic period. לָבָן possibly exists in all four stages: this depends on our dating, on other grounds, of Gen. 49:12. שׁוֹחַ(וֹ)ר is restricted to the last two periods. Statistically, although all three are the most frequent colour terms in the OT, their number is quite small: in descending order, לָבָן appears 24 times, its direct verbal derivatives - two lexemes, a Hif. and Hit. - 5 times; אָרְ(וֹ)ם - 9 times, its direct verbal derivatives - three lexemes, Qal, Hif., and Hithp., each of which is employed once - 3 times; שׁוֹחַ(וֹ)ר - 6 times, together with one occurrence of a Qal lexeme.² In addition, it must be noted that a sizeable proportion of the לָבָן occurrences - 14 times - is clustered in Lev. 13. Given these data, we may suppose that לָבָן and אָרְ(וֹ)ם are the most dominant colour terms, while שׁוֹחַ(וֹ)ר lags not far behind. This indeed is supported by other data. אָרְ(וֹ)ם and לָבָן , or subordinate terms that belong to their sectors, appear as oppositions (Isa. 1:18, Gen. 49:12); and the three terms are brought together (שׁוֹחַ(וֹ)ר through מִשְׁחֹר) in Lam. 4:7-8. אָרְ(וֹ)ם has the greatest number of colour specifications through references (by analogy) to substances whose colour is well known - blood, wine, scarlet, and corals - and לָבָן is compared to snow, milk, wool, and implicitly to בִּלְחָל .³ שׁוֹחַ(וֹ)ר is compared to the less transparent (for us) שׁוֹחַר , to a raven, and to אֶהְיֶה קֹדֶר .

All three terms serve as bases for derived terms.⁴ The latter, apart from direct (active) verbal formations which belong to the primary stratum, are placed within other levels of the field. When we use the criteria set in the previous chapter for comparing the types and the number of these derivatives, the resulting (achronistic) picture is:

primary	אֶדָם.	לָבֹן,	שָׁחֹר.
secondary	אֶדְמָדָם. מֵאֶדָם	--	*שָׁחֹרָחֹר.
tertiary	אֶדְמוֹנִי, לָבֹן אֶדְמָדָם.	לָבֹן אֶדְמָדָם.	--
Indirect a.	אֶדָם? אֶדְמוֹן?	לָבֹן. לִבְנָה/א.	--
1. personal/generic names	עֹבֵד אֶדְמוֹן?	לִבְנִי. חֶלְבְּנִי.	
2. place names	אֶדְמוֹן. מַעֲלֵה אֶדְמִים.	לָבֹן. לִבְנָה.	--
Indirect b.	אֶדָם? אֶדְמָה? הָטָם?	לִבְנָה. לִבְנָה? לִבְנֹר.	
names for objects or		לִבְנָה. לִבְנָה (לִבְנָה).	שָׁחֹר. שָׁחֹרֹת?
concepts		לִבְנָה. לִבְנָה (הַסְפִּיר).	שָׁחֹר?
		לִבְנָה ← לָבֹן	
		מִלְפֹן?	
Indirect c.	אֶדָם	--	--
metals/precious stones			

אֶדָם has five terms which seem to be directly derived from it. One of these - the compound אֶדְמָדָם לָבֹן - probably refers to a non-linguistic entity it partly shares with לָבֹן. The lexeme אֶדָם itself, in the m.pl. word אֶדְמִים, is part of a place name, which brings the total up to six. In addition, six lexemes - אֶדָם, אֶדְמוֹן, אֶדְמִי, אֶדְמָה, אֶדְמָה, and הָטָם - are phonetically (the first five) and also referentially (chiefly הָטָם) so close to the אֶדָם concept as to merit an investigation of possible root etymology links.

לָבֹן has no secondary or tertiary terms which are derived directly from it apart from the אֶדְמָדָם לָבֹן which it shares with a segment of the אֶדָם sector (see above). On the other hand, it is the basis for eight personal, generic, and place names; four terms for objects or concepts, and through the fifth - לִבְנָה - perhaps the ultimate origin of $\sqrt{\text{לִבְנָה}}$ II ('make bricks') and of מִלְכָּן. If we accept that לָבֹן = personal name is so different in denotation from לָבֹן = place name as to warrant giving each of them the status of an independent lexeme, then the total of the derived לָבֹן terms - even if the $\sqrt{\text{לִבְנָה}}$ II series is excluded - is thirteen. It seems to me that this is the correct procedure to follow: although לָבֹן (colour), לָבֹן (personal name), and לָבֹן (place name) share the same form - and a similar lexicographical

problem is presented by series such as לְבָנָה (moon), אֶלְבָנָה (personal name); לְבָנָה (place name), לְבָנָה*, לְבָנָה חֶסְפִיר; לְבָנָה (place name), לְבָנָה (ו)נָה (frankincense) - each element in the series refers to a different 'reality'; hence they are homophonous, perhaps etymologically identical but semantically separate lexemes.

Finally, שָׁחֹר is the most limited: it has one secondary derived term, one certain term for object or concept, and two terms that are *hapax legomena* but seem to be related to it. Thus, the total for שָׁחֹר is, at the most, four directly derived lexemes.

To summarize this point: the existence of colour terms that are employed as structural sub-components of different functions within the area designated by the primary terms, when the subordinate terms can be shown as morphological derivations of the primary terms, strengthens the status of the latter as primary governing elements within the same framework. From the point of view of applicability, again לְבָנָה and אֶרֶם have the widest range, while שָׁחֹר is more limited. Whereas secondary and tertiary derivatives of אֶרֶם are more numerous than those of לְבָנָה, the latter is more prolific in the area of proper names and in applicability. שָׁחֹר, although by far the most limited of the three on all counts, retains its primary status during the exilic and post exilic periods because its distribution and range are wider than that of other, non-primary terms whose applicability is narrowed to one lexeme denoting one object only (like שָׁחֹר* or אֶרֶם*). In the following table, the range of each of the three terms is compared with that of the other two, again regardless of chronological factors and ordering.

Lexemes for items that are
qualified by a primary term

Number of occurrences
לֶבַד אֵדָם שֹׁחַר

I 'physical':⁵

a. human:	1) flesh, skin, of complexion	1 (nom.)	1 (nom.) 1 (verb.)	1 (nom.) 1 (verb.)
	2) skin tumor, sore	7 (nom.)	--	--
	3) hair	7 (nom.)	--	3 (nom.)
	4) teeth	1 (nom.)	--	--
b. animal (skin, hide, wool):				
	5) sheep	1 (nom.)	--	--
	6) cows	--	1 (nom.)	--
	7) horses	3 (nom.)	3 (nom.)	2 (nom.)
c. inanimate, food, drink:				
	8) lentils	--	2 (nom.) (Gen. 25:30, x 2)	--
	זָרַע water	1 (nom.)	--	--
	wine	--	1 (nom.)	--
	9) garments	1 (nom.)	1 (nom.)	--
	10) others: wood, bark	2 (nom.) 1 (verb.)	--	--

II 'abstract':

11) sins	1 (verb.)	1 (verb.)	--
12) sinners ⁶	3 (verb.)	--	--

TOTAL

29

12

7

Notably, the three primary terms - אָדָם, לָבָן, שָׁחַר - are all applicable to lexemes denoting 'human skin' or 'complexion', and 'horses'; לָבָן and אָדָם also share the description of sins and of garments; שָׁחַר and לָבָן - of hair, while the third term in this set of oppositions is derived from אָדָם, but is of secondary status (אֲדָמוֹנִי, Gen. 25:25 and 1 Sam. 16:12, 17:42.⁷) These recurrent appearances of the same colour term within the same area of usage strengthen their status beyond, and apart from, the recognition of their versatility. Further, the wider scope of לָבָן seems to be of limited significance: while in the אָדָם sector we find a number of אָדָם - derived subordinate terms (apart from personal names or toponyms), in the לָבָן sector terms that are etymologically non-related to the chief lexeme are brought in.⁸ As Fronzaroli points out, although the number of associations and possible substitutions in the corpus is limited, the series is probably a 'closed' one in the actual living language.⁹ A more detailed description of possible sets of oppositions within sectors of colour references and across them will be given under the headings of the relevant terms, whether primary or otherwise.

O.1 Both Gradwohl¹⁰ and Fronzaroli¹¹ classify צָהָב as a sub-member of the אָדָם sector. At first glance their statements seem to be correct. In the existing corpus צָהָב is restricted to Lev. 13, presumably of the exilic or post exilic period, and its frequency is limited (three occurrences - vv. 30, 32, 36). From the point of view of versatility and applicability it is associated only with 'hair'. Its etymological relationship with זָהָב is far from proven;¹² therefore, the phonetic similarity cannot be a guide for defining the actual (extra-linguistic) reference of the term on etymological grounds.

On the other hand, various arguments can be cited in favour of including צָהָב in the primary set of colour terms of the last two stages of biblical Hebrew. While it is applicable to '(human) hair' only, it stands in opposition to - and in its situational context can be substituted for - either synchronic primary terms associated with hair (שָׁחַר, vv. 31, 37; or potentially with terms like שֵׁעַר לָבָן - vv. 10, 25), or diachronically with אֲדָמוֹנִי, if the latter is to be interpreted as denoting hair, and not complexion, colour.¹³ Following the criterion of form, צָהָב shares the formative pattern of אָדָם, שָׁחַר, and other

colour terms. Whereas this last obvious observation is not particularly weighty as an argument - the same pattern is shared by subordinate terms like פָּרוֹר^* , אֲמִץ^* , שָׁרוֹק^* as well as by non-colour terms like מִזְוָה , עֲמֹק - it does contribute towards the recognition of the status of צָהָב as a primary term, an equal member in the set $\text{צָהָב-שָׁחַר-לָבָן}$ (as applied to a substantive denoting human hair). Etymologically, a connection or a starting point might be gleaned from the partial phonetic similarity, within Hebrew stock, of $\sqrt{\text{צָהָב}}$ and the $\sqrt{\text{צָהָל}}$, $\sqrt{\text{צָהַר}}$ groups and their respective (extra linguistic) references, rather than from a presumed sound shift $*d > \text{ṣ}$, which is unusual for Hebrew. צָהָב also has a derived subordinate term, מִצְרֵב (Ezra 8:27). Although this *hapax legomenon*¹⁴ is dated as synchronically parallel to the צָהָב occurrences, it describes bronze or copper vessels, not hair; thus its range, although limited to one association, is different from that of the parent term. Finally, the reference of the term, although not self-defined by the text itself, is understood as belonging to the אֲדָמָה group by the Aramaic translations, but not by the LXX and the Vulgate. Even more significant is the fact that in MH צָהָב has an independent reference that may overlap with אֲדָמָה at their common border (as indeed they should). Basically, though, the two terms are distinct from each other, independent, and of almost equal status. All the points mentioned briefly above will be taken up again when צָהָב is discussed later in this chapter, and in the appropriate place in the section dealing with colour terms in MH. Meanwhile, the conclusion adopted here is: Whereas in the period of the monarchy (Stage 2) there are only two extinct primary terms which can be defined as such by the multiple-criteria method employed (לָבָן , אֲדָמָה), both שָׁחַר and צָהָב join the basic system at the end of this period and feature as primary terms from then onwards.

0.2 Another term with a dubious status is יָרוֹק . It appears only once - ואחר כל ירוק ידרש (Job 39:8) - and as a substantive. Its derivation from יָרֵק or יָרֵק seems to be quite straightforward, for it is still transparently associated with the name of the object which has the characteristic feature of 'green-ness' denoted by יָרוֹק . On the other hand, one must reckon with

derived lexemes on various levels. The secondary formation יִרְקָה, which is associated with cloth and leather 'disease' (Lev. 13:49) and building material 'disease' (14:37) is defined as a secondary form derived from יָרוֹק - not directly from יִרְקָה/יִרְקָה - by its analogy and opposition to אֲדָמָה (from אֶדָם). The lexeme is further employed in a completely different context in the syntagm יִרְקָה חֲרוּץ (Ps. 68:14). The last instance is highly significant: it has an almost exact parallel in Ugaritic - 1 Krt. 126: *yrg ḥrs*. - but there with what looks like a primary, not secondary, form. The antiquity of the roots of Ps. 68 makes יִרְקָה less dependent on אֲדָמָה (by way of analogical formation) and at the same time enhances the possibility that יָרוֹק featured as a primary term in biblical Hebrew, and that its being a late *hapax* is perhaps merely accidental. Other יִרְקָה derivatives are of non-direct types: the toponym יִרְקוֹן (מִיָּה) and possibly יִרְקוֹן. The latter has two significations: as a name for a cereal disease it is well distributed throughout the last 3 stages of bib. Hebrew (5 times in the pair יִרְקוֹן וְשִׁדְפוֹן), while in Jer. 30:6 (וְנִהַפְּכוּ כָל פְּנִים) יִרְקוֹן (לִיִּרְקוֹן) it either represents a shift in meaning - not only application - or else this is the basic sense of the lexeme. To be sure, יִרְקוֹן and יִרְקוֹן could have been directly derived from יִרְקָה; their usefulness as evidence for the status of יָרוֹק is limited, and the admissibility of the latter depends upon the cumulative momentum of other data. These other data fall under three headings: 1) The early usage of יִרְקָה and its sense within its context; 2) The ample evidence of ancient cognates of the same consonantal skeleton as colour terms in their respective languages (Akkadian, Ugaritic, Arabic); and 3) The wide employment of יָרוֹק and its derivatives, old and new, in MH - that is, the amplification, along newer but similar lines, of older stock. These three aspects will be discussed later under יִרְקָה, יָרוֹק in the appropriate sections.¹⁵

Meanwhile let us just say that Fronzaroli's suggestion - that יִרְקָה existed in the sub-system with no archetypal יָרוֹק in the basic stratum¹⁶ - seems to be undermined by all three arguments; hence, יָרוֹק will be considered as a late (last two stages; but possibly, after a re-clarification of יִרְקָה חֲרוּץ and the literary and chronological context of Ps. 68, even earlier) primary term, alongside שָׁחַר, לֶבַן, אֶדָם, צֹהַב.

0.3 As reported in the Introduction, Berlin and Kay found seven universal stages in the evolution of basic (= primary) colour terms. In essence, a synchronous linguistic state may contain lexemes that will place it in any one of the following stages of lexical colour development:

- Stage I. lexemes for 'black' and 'white'; or
- Stage II. lexemes for 'black', 'white', and 'red'; or
- Stage IIIa. lexemes for 'black', 'white', 'red', and 'green'; or
- Stage IIIb. lexemes for 'black', 'white', 'red', and 'yellow'; or
- Stage IV. lexemes for 'black', 'white', 'red', 'green', and 'yellow'; or
- Stage V. lexemes for 'black', 'white', 'red', 'green', 'yellow', and 'blue'; or
- Stage VI. lexemes for 'black', 'white', 'red', 'green', 'yellow', 'blue', and 'brown'; or
- Stage VII. Stage VI lexemes plus either 'purple' or 'pink', 'orange', 'grey', or all of them.

According to this scheme, the visible colour factors in the non-linguistic world are all referred to by the existing terms: in stage I 'black' includes all dark colours, 'white' - all light ones; in stage II 'red' includes most highly saturated colours, and by its existence makes the area previously covered by 'black' and 'white' smaller but better defined; and so on.¹⁷

Let us apply these conclusions to the colour systems of various historical stages of biblical Hebrew. So far, we have found that:

- in stage 1 (pre-monarchic Hebrew) we have no material in the corpus to support any system of colour discrimination.
- in stage 2 (pre-exilic) there are two terms, לָבָן and אָדָם, which roughly correspond to 'white' and 'red'.
- in stages 3 and 4 (exilic and post-exilic) there are three established terms - שָׁחַר, אָדָם, לָבָן (roughly corresponding to 'white', 'red', and 'black' respectively), and two 'young' terms - צֹהֵב, יָרוֹק (roughly corresponding to 'green' and 'yellow').

It seems, therefore, that by the end of the OT period the primary colour vocabulary of biblical Hebrew was at the beginning of stage IV of the Berlin-Kay scheme; possibly, if we insist that צֹהֵב is peculiar to Lev. 13 and that מִצְהָב (Ezr. 8:27) should

be discounted because of the difficulties it raises, we should classify the evolutionary status at this point as a transitional link between stages III and IV. The material available is too scanty to make any firmer assertion. The situation is much more obscure as far as Stage 2 (Hebrew of the monarchic period) is discussed. Not only does it not correspond to the Berlin-Kay stages I or II but, which is much more important, it does not tally with basic common sense observations: light and darkness, 'black' and 'white' are a basic contrast in reality; it seems inconceivable that any linguistic system will ignore this contrast. Fronzaroli¹⁸ suggests that in earlier (stages 1 and 2) Hebrew the term חֹם filled the slot later occupied by שָׁחֹר.¹⁹ This is possible but cannot be proven from the text. Alternately we might surmise that שָׁחֹר only accidentally does not appear in any text prior to the exilic period, or that a lexeme from the 'darkness' field - perhaps a formation from $\sqrt{\text{חֹשֶׁךְ}}$ or $\sqrt{\text{קֹדֶרֶךְ}}$ - was the primary term later supplanted by שָׁחֹר. At any rate, in the interest of common sense we should presume that in stage 2 Hebrew lexical colour categories correspond to stage II of the Berlin-Kay set: it has the primary established terms - לָבָן, אֲדָמָה - that are sometimes juxtaposed against each other (Isa. 1:18), and a third term that is the equivalent of 'black', but which either lost its primary sense early and was not preserved as such in the text (in the case of חֹם), or is simply not extant in the corpus.

0.4 So far in this section we have discussed the primary terms from the aspect of their sense relations on the primary level itself and across levels and sectors. In the following sections the occurrences of each primary term will be analyzed in an attempt to find what they stand for. In other words, we will now look for the extra-linguistic references of the linguistic symbols. The three chief problems this investigation will be concerned with are: a) What is the reference of the term in each range? b) Adding the total of these references, what is the colour range that the term covers? c) Is the term a 'primary' one in the referential, and not only the linguistic, sense? Do the results emanating from the investigation of the references of any term justify, or reinforce, its classification as primary on the basis of interlinguistic analysis?

B.1. אָדָם (1) ¹.

1.0 In most biblical dictionaries, translations, and commentaries אָדָם is conveniently equated with 'red', while the verb formations derived from it are interpreted as references to one aspect or the other of becoming 'red'. A quick survey will illustrate this point. BDB² defines אָדָם as 'red, ruddy'. The entries in KB³ and in אוצר לשון המקרא are similar. The Jewish Aramaic translations⁵ invariably render אָדָם with lexemes derived from the root סָמַק, and this seems to strengthen the notion of a fixed, or well-defined, reference of אָדָם. The LXX and V, though, do not use one consistent term for all instances.⁶ A possible reason for this practice might have been the recognition that אָדָם does not necessarily have a constant equivalent in Greek or in Latin. (We will return to this point below, in 1.4). In other words, the referents, as denoted by each and every context, are variables within a framework that is too wide to be communicated by a single common lexeme. The concept of a one-to-one relationship between terms referring to the same extra-linguistic colour phenomenon at first seems to be reasonable. If the phenomenon is constant, it should be perceived by most viewers in a similar manner. Consequently, it is to be expected that different speech communities will encode it in a similar fashion; that is, will coin a term that would 'cover' the same - or a similar - area of reference, displaying the same - or similar - boundaries. That this concept is not always valid will be apparent as soon as we begin to analyze our first instance (Gen. 25:30). The difficulties inherent in this orderly - albeit not necessarily adequate - approach are far greater than its comforts, and the resulting attempt of defining the extra-linguistic references is sometimes confused. Thus Gradwohl, who discusses אָדָם under the heading 'rot', is forced to summarize that the term covers 'brown', as much as different types of what we call 'red' and even 'pink'.⁷ Therefore his heading, as much as his organization of the material, are highly misleading: our modern 'red' is more restricted in scope than the biblical אָדָם. Furthermore, as Berlin and Kay point out, "Whenever we speak of colour categories, we refer to the foci of categories rather than to their boundaries or total area, except when specifically stating otherwise".⁸ Berlin - Kay were unable to explain this process which was nevertheless empirically proven

by them. However, it seems that their position should be accepted: we do tend to use lexical definitions which refer to the typical (= exaggerated) essence of what we describe, for communication might be impaired otherwise. Now, when we equate אָדָם with 'red', and our 'red' is perceived as referring to an area which has the colour of blood as its focus, what is easier than to attribute the same focus - with the same frame of reference - to biblical אָדָם? The consonantal similarity between אָדָם and הָם appears doubly tempting in the light of the presumed focus of the field, and attempts are made to find an etymological connection between the two.⁹ Further, biblical passages, as will be shown in the discussion of Gen. 25:30, are interpreted in the light of the 'blood-red' focus supposition; but when we do that, do we not read into the text our own preconceptions, attributing to it more - or less - than what was originally meant?

1.1 Gen. 25:30 מִן הָאֵדָם הָאֵדָם הַזֶּה

The double occurrence of אָדָם presents both grammatical - syntactical and textual problems, and those should be cleared up before we approach the referential question. Most commentators propose to emend the text by eliminating the first אָדָם and substituting something else for it: BH³, Skinner,¹⁰ Dillmann,¹¹ and Gaster¹² suggest an emendation in the pointing to read אֵדָם (Cf. Arabic *idām*) = 'seasoning or condiment for bread' on the grounds of unnecessary, even awkward, repetition. Others, like Ball,¹³ read 'הַנְּזִיר הָאֵדָם', following the LXX, V, T, and Neophyti I. Ball says, "There is no special reason for repeating the epithet, while on the other hand, a substantive is necessary to sense, and even to grammar".¹⁴ To his first argument we may object on the grounds that Esau is depicted as being in an impatient, excited state, and thus might have easily been described as repeating his words.¹⁵ Furthermore, because the T^o (as in both Sperber and מְקִרְאוֹת גְּדוּלוֹת¹⁶) contains the same repetition, a simple accident of dittography should be considered less plausible. As for the LXX, V, and Neophyti, where the equivalent of נְזִיר replaces the first אָדָם, it might be not so much a part of their *Vorlage* as an attempt to correct the apparently unnecessary repetition.

Finally, as Blau says, the borderlines between noun and adjective in Semitic languages are quite fluid:¹⁷ there is no

reason for emendation on grammatical grounds - the utterance makes sense as it stands. On the other hand, any one of the proposed emendations would rob Esau's utterance of the sense of urgency and the oblique, too-tired-to-care attitude. Let us leave it as it appears in the MT.

The reference of **הָאֵדָם הָאֵדָם** depends, of course, on the referents of **נֶזֶיד** (vv. 29, 34) and to a greater extent on **עֲדָשִׁים** (v. 34), for this **נֶזֶיד עֲדָשִׁים** is the entity referred to by the colour term. **נֶזֶיד** - like its related Hif. formations - is well established through the occurrences here, in 2 Ki. 4: 38, 39 (where it clearly designates 'something cooked in a pot'), and in Hag. 2:12 (where it again appears in conjunction with **לֶחֶם**). So, the translation 'dish', 'pottage' is justified - the Aramaic Targum consistently uses **כְּשֶׁלֶךְ** - although the 'soup', or 'blood soup', referred to by Daube,¹⁸ Henton Davies,¹⁹ and von Rad²⁰ looks less accurate than the 'pottage', 'dish' or simply 'stuff',²¹ which other scholars mention.

The second part of the syntagm - **עֲדָשִׁים** - is universally recognized as 'lentils',²² in OT language as much as in post-biblical Hebrew. The consistent Aramaic translation **טְלוּפְחִין**,²³ and the Arabic cognate of the same meaning, strengthen this recognition. It is true that the version parallel to (2 Sam.23:11) **חִלְקֶת הַשֶּׂהָה מִלֵּא עֲדָשִׁים** has instead (1 Ch. 11:13) **חִלְקֶת הַשֶּׂהָה מִלֵּא שְׁעוּרִים**. However, as both LXX and the T have **עֲדָשִׁים** in both places, and the meaning of the word is well known in MH, there is no reason to attach any significance to what looks like an error in 1 Ch. 11:13. So, what colour are lentils? The question can be asked only in the present tense: advanced agricultural methods change many aspects of any harvest, but we have no choice apart from relying on our own experience if - as in our case - no additional information is available. Gradwohl describes the colour of lentils as 'yellowish-brown', but adds that they are perceived as 'red'.²⁴ As his statement stands it is inexplicable. Let us add that, at least one type of lentil one gets in present-day Israel, (and, for that matter, in England as well) is best described as of a sharp orange colour which turns brownish after the lentils are cooked. Nobody today would consider the colour of these lentils 'red', for other terms are available. In the absence of contemporary terms for either 'orange' or 'yellow' or

'brown', most of us would indeed define the colour of lentils as 'red'. However, this (for us) hypothetical practice would not mean that we equate the colour of lentils with that of blood, or wine, or human complexion; on the contrary - it would mean that the term 'red' would be an expanded 'blanket' term which is inclusive of many more references to chromatic shades than those we attribute to our modern 'red', or the אָרֶם of contemporary Hebrew. In other words, אָרֶם in Gen. 25:30 has a reference value of 'orange', 'yellowish orange', or 'yellowish brown'. What should be done, then, is not to bring our sensibilities to the biblical text and declare that אָרֶם is 'red', but rather to accept that the scope of the term indeed includes 'red' (although not in this context), although here the reference is to its possible boundaries on the 'brown-yellow' side. While אָרֶם is indeed 'red' it is also wider in range than 'red', covering areas that were later excluded from this sector as a result of the introduction of new terms.

Daube,¹⁸ Henton Davies,¹⁹ and von Rad²⁰ raise the possibility that the נֶזֶל עֲדָשִׁים was mistaken by Esau for 'blood soup'. According to this theory Jacob cooked the lentils in such a way that they looked like a red blood soup, not only appetizing but a source of life and potency to whoever drinks it. Thus Jacob tricked Esau through the colour of the soup; and as his brother forswore before discovering the deceit, he has no reason for complaint apart from this trickery.

The theory is attractive on a few counts: it enriches the tale with folkloristic elements of the advantage of drinking blood to the person who consumes it. It explains Esau's hurt after eating the pottage, whereas if no direct allusion to a blood soup that is not really what it seems is presumed, he really cannot blame Jacob too much: the latter exercised an advantage over him but did not force his hand in any way. At a pinch, this can also clarify Esau's contention that he had been deceived twice.

However, the whole theory rests on the notion that אָרֶם is equal to 'red', whose focus is - or might be - 'blood-red', and/or on an etymological connection between אָרֶם and דָּם. As discussed above, these two arguments are far from established. If we bring common sense to bear upon the question we will

discover that making a lentil dish resemble 'blood soup' through simple cooking is a far from easy feat, for lentils tend to lose their distinct colour and become a faded brown or yellow through cooking. Therefore the 'blood soup' theory, together with its enriching symbolism, should be regretfully discarded.

Finally, a word about the 'אֶדֶם' element in Gen. 25 in general: it is obvious that אֶדֶם, אֶדְמוֹנִי, אֶדְמוֹ are phonetically and perhaps even etymologically related, and that the 'אֶדֶם' element and its derivatives form an important element of the etiological story of Jacob vs. Esau, Israel vs. Edom.²⁵

Nevertheless, it must be remembered that as far as the listener is concerned the paranomasia of the repeated consonantal sequences is probably as important as the colour allusions they possess, or do not possess. There is no reason to suppose that the listener or reader immediately asked himself why Edom is thus named (although the story-teller did). As the word stands, it has no colour denotation whatsoever. On the other hand, אֶדֶם and אֶדְמוֹנִי can play their part in the grotesque presentation of Esau only if the speaker and his audience know that their colour references are quite loose, and hence they are considered to be constituents of the same general framework.

1.2 Num. 19:2 פָּרָה אֲדָמָה תְּמִימָה

No natural cow hide is indeed 'red'. If we stick to the אֶדֶם = 'red' formula, we shall be in trouble here too. On the other hand, the retention of the אֶדֶם = 'red' definition would introduce the question of symbolism, especially that of blood and of cleansing or purification, which is particularly appropriate here.

Gradwohl tries to side-step the question by saying that the unfortunate heifer is 'reddish-brown', and therefore rare. He cites Mish. Par. 3:5, where it is said that even two black or white hairs make the heifer unsuitable for its destiny, and claims that the rarity of such an animal is recognized there. He adds that according to the above-mentioned source, Moses and Joshua offered only one such 'red' cow for that purpose.²⁶ Upon investigation, this rendering of the Mishnaic text appears worse than inaccurate. Joshua is not mentioned at all. Not the rarity of the 'red cow' is discussed, but that of the ceremony prescribed in Num. 19:1-21. There is agreement about the information that

from Moses to Ezra the ceremony was never enacted; on the other hand, there follows a discussion about the number of the 'red' heifers offered from Ezra to the destruction of the Second Temple. Therefore, there is no basis in our Mishna for the notion of the 'rarity' of the 'red' heifer as such (and see below). In actual fact, Gradwohl does not give up the 'red' definition, but attempts to modify it somewhat, while misreading the Mishna along the way.

Even Snaith, who recognizes that different shades of 'red' might be designated by אָדָם, retains the traditional 'red heifer' translation.²⁷ Indeed, he is forced to do so because of the importance he attributes to the 'red' element (relating to blood rather than fire²⁸) as a cleansing, desinching agent. Naturally, if 'red' is אָדָם then the origin and visual symbolism of the ritual would be lost if the heifer is discovered to be 'non-red'. Snaith evades the problem by declaring that it is not always possible to be precise in matters of colour - which is perfectly true - and by citing the Mishna (mentioned above) concerning the rarity of such an animal.

G.B. Gray admits that "no unnatural colour is intended; for though the word אָדָם at times denotes a brilliant red colour (as of blood), it is also used where we should rather speak of a brown, or reddish brown".²⁹ So far so good. But Gray is looking for the symbolism of the rite too, so he seems to retreat to a safe "Why the cow had to be red is uncertain", and suggests the colour of 'blood', or of 'ruddy, golden corn'.³⁰

Clearly, the cow cannot be 'red'. Whether its skin has a reddish sheen or not is beside the point: today we would probably term it 'bay' or 'brown' in English, חֹדָה (= 'brown') in Modern Hebrew. There is no contemporaneous term referring to 'brown' in OT Hebrew. In the absence of a specialized term that refers to the chromatically neutral area between 'red' and 'black' (or 'dark'), this territory is divided between the two polarized terms. (Berlin and Kay refer to this phenomenon when they describe stage II, e.g. three-term languages: the term for red in this stage "includes all reds, oranges, most yellows, browns, pinks and purples (including violet)"³¹). We cannot argue that the lack of a specifying term for 'brown' points to a lack of its identification as a specific entity: as there are no 'red'

cows or horses, when the term is applied to lexemes denoting these animals it refers to their visible, 'real' colour, inasmuch as when applied to 'blood' it means 'blood red'. As a matter of fact, the system works because of the versatility of range the terms possess. And when, for some specific reason, a term ceases to be adequate, the new term introduced infringes on the territory of the old one (as with אָדָם and אֶדְמָה, or אָדָם and צֹהֶב).

As for Mishna Par. 2:5, one must realize that it is bound by the wording of the biblical text (אֶדְמָה), although the actual frame of reference for אָדָם in MH is much more restricted because colour terminology in MH is much better developed. Hence the extra-biblical legends about the rarity of the 'red heifer' - it can be found, but is not common.³² Underlying this explanation is another one stressing the qualifying תְּמִימָה which, as Gradwohl rightly points out, is understood to refer to the purity of the colour, not the perfect body of the cow.³³ The Sages must have realized that the פָּרָה אֶדְמָה mentioned actually refers to a 'brown cow', not a 'red' one; and this type of cow must have been known, if not common-brown locally bred or 'Arab' cattle, as it is colloquially called, is still abundant in Israel today; can this fact assist in the recognition that such cows were not so rare after all? The problem facing them was: In what way would this apparently quite regular animal be so special as to warrant its destiny? The answer was probably born out of the observation that whereas brown cows are not a rarity, one that is completely uniform in its colouring - without speckles or spots of white or black, without even a couple of neighbouring black or white hairs (Par. 2:5) - is rare indeed. Thus again, אֶדְמָה refers to a 'brown' or, at the most, a 'brown' colour with a 'reddish' or 'yellowish' tinge. Unless a footnote to that effect is appended to the text, a translation utilizing the lexeme 'red' - with its modern limitations - is not only inadequate, but also misleading.

Finally there remains the question of the colour symbolism (if any) of the rite described in Num. 19:1-10. It is conceivable that animals with reddish or brownish hide have been used for ritual purposes by various communities because of the resemblance of their hide to blood.³⁴ In addition, normal linguistic usage points to the fact that 'brown', 'orange', etc. are included in the sector covered by the term 'red' before specialized terms

are assigned to them, together with 'blood red' and other 'reds'. But, whether there is a colour symbolism in our passage or not cannot be decided on the strength of external evidence alone. Within our text blood is indeed used (v.4) and so is fire (v.5). However, there is no hint, no clue in the text in regard to the colour significance of the heifer's skin.

Were the legislator, and/or the writer, aware of the 'hide colour' → 'blood' associations? Therefore it would seem, on both semantic and interpretative grounds, that no colour symbolism should be attributed to our passage.

1.3 2 Ki. 3:22 וישכימו בבקר והשמש זרחה על המים ויראו מואב מנגד
את המים אדמים כדם (ויאמרו דם זה) החרב נחרבו המלכים
23. ויכו איש את רעהו

The reference of אדמים in 2 Ki. 3:22 is defined by its contexts. The situational context is that of war. According to the story, the morning sun was reflected in the sudden flood water which, as a result, looked 'red as blood'. The Moabites, who knew there had been no water the night before, imagined they saw blood (not water tinged with 'blood red' colour), jumped to conclusions and consequently lost the battle. As a narration of events, the story is full of holes: can water become so intensely red from the sun as to resemble blood? Why were the Moabites so incautious?³⁵ But this, as Gray points out, is a prophetic story,³⁶ one of the great Elijah - Elisha cycle. The miraculous event corresponding to Elisha's earlier prophecy (vv. 16-19) should not be rationalized for, as it is told, it is a miracle; if explained and described as a natural, although rare, phenomenon, it is demoted to a sphere of every-day life and that, surely, was not the writer's intention!

The lexical context, however, is very clear: the water is אדמים כדם. The term אדמים here designates the colour of blood; hence the translation 'red as blood' is fully justified. Nevertheless, no far-reaching conclusions can be drawn from this instance. Gradwohl goes to great pains to stress the connection between 'red' = the colour of blood, and the importance of blood in religious history.³⁷ However, our instance in 2 Ki. 3:22 is unique, whereas אדמים defined by other materials appears in other places (Isa. 1:18, 63:2). This singular syntagm, even if only accidentally singular, cannot prove anything apart from the fact

to translate it into German; and to cite the LXX and V renderings to the first part of the verse. He then goes on to remark that YHWH is depicted anthropomorphically as a warrior whose red clothes might be red battle dress (cf. Nah. 2:4 - מַחֲלָעִים, 'crimson coloured'), possibly stained by his enemies' blood - וַיֵּץ נִצָּחִם עַל - בַּגְדֵי (v.3). Finally the free Aramaic T to this section of v.3 is quoted together with Stenning's translation of the latter into English.⁴¹

Now, whatever Gradwohl has said must be deemed correct, valid, and relevant. The material is arranged so that in his summary to the "Rot" section he would be able to state categorically that אָדָם is, first and foremost, 'rot, blutrot (Gewand)',⁴² The problem is that the description is atomistic - it takes the circumstantial context into account only in a limited fashion, ignores the rich imagery of the passage, and does not analyze the significance of the facts mentioned. As such, this partial treatment is not only misleading but also impoverishing: it is a disjointed collection of items that cannot be termed 'an analysis', for it does not enhance our appreciation of the passage as a poetic whole. Let us try and examine the passage differently. It is constructed as a dialogue between the dramatic personae, a watchman-sentry and someone who is approaching the sentry's post. This is a rhetorical convention with which the listeners were probably familiar.⁴³ The watchman inquires and the newcomer answers obliquely (v.1). The watchman has meanwhile seen that the approaching figure's clothes are stained with אָדָם, like someone who had been treading the wine press; he inquires why (v.2). The figure answers by utilizing the watchman's simile of wine press (v.3a), and gradually moves to a new strand of imagery - if until now we have imagined that his clothes were grape-stained, by now we realize that they are soiled with blood (v.3) and that he is no ordinary person but God the Avenger. Only now do we understand, through the shift in imagery, that the approaching 'figure' is not agriculturally employed, but intent on a mission of destruction. The allusions to the colour of the figure's garments are three: חֲמוּץ בַּגְדִים (v.1), אָדָם לְבוּשׁ (v.2), as in BH³,⁴⁴ וּבַגְדֵי כִרְיָר בָּגָה (v.2). Other colour allusions are implicitly expressed by וַיֵּץ נִצָּחִם עַל בַּגְדֵי (v.3), and possibly by the phonetic similarity of אָדָם (v. 1) and אָדָם (v. 2), בָּצָרָה (v. 1)

and the **נָצִיר** situation.⁴⁵ The twin thread of 'grape juice' and 'blood' imagery is present throughout the passage: the first cannot be ignored on the grounds that the lexeme **אָדָם** does not appear in a syntagmatic relationship with **עֵנָבִים**, **עֵנָבִים**.

On the whole, **אָדָם** seems to imply various types of 'red': it covers an area that is - within the text itself - dissected into sections covered by words or expressions which are more specific: **חֲמֹרֶץ**, possibly a 'bright red' but a *hapax*,⁴⁶ perhaps corresponds to the 'blood-red' indirectly referred to by v.3 (**וְיֵזַן נֶחֱמֶס**), or the purplish 'red' of grape juice which is implied by vv. 2b and 3a.

True enough, the whole point is that God's garments are covered with blood, not grape juice; but again, if we do not see **אָדָם** (v.2) as a superordinate term which has partial synonyms or further references in the passage, and which may refer to various shades of 'red', not necessarily 'blood red' - we would miss half the significance of the mixed metaphor and its connotations.⁴⁷ Ibn Ezra (to v.2) says: **וְהִטְעָם הָדָם הָרֹמָה לֵינִי** - the resemblance of the colour of blood to the colour of wine is the basis of the prophetic hyperbole. Let us add that the similarity in reference is well covered by the basic term **אָדָם**: we cannot say that the lexical item **אָדָם** refers more typically to 'blood colour' than to 'wine colour', and that - it must be remembered - in a post-exilic passage, one that was composed during a comparatively late period of biblical Hebrew!

By way of rounding the subject, let us return to the LXX and the T and see what can be gleaned from them. The LXX has *eruthra* for **אָדָם** (v.2), an item which Gradwohl records but does not comment upon.⁴⁸ As a matter of fact, this is the first and only instance where **אָדָם** or a derivative thereof is thus rendered within the LXX corpus. Otherwise, lexemes derived from *purros* are used. In a similar manner, V translates various instances of **אָדָם** either with *rufus* (Zech. 1:8) or, as in Isa. 63:2, *rubrum* related lexemes. The different translation for our passage, especially in LXX, might be significant.⁴⁹ It is conceivable that the rendering *eruthra* here - and only here - is accidental or idiosyncratic, unique to the translator of this passage. Therefore, no conclusions can be drawn from this unique occurrence. On the other hand it is possible that the **אָדָם** reference

in Isa. 63:2 is, as defined by its contexts, closer to the focus of the 'red' sector in LXX; and secondly, the mere fact that more than one term is needed, both in LXX and in V, to cover the range of reference of the single Hebrew term אָדָם points to the primary, general, and superordinate character of the latter, even if differences in translation - the outcome of varying methods, periods, approaches, or lexical stocks employed - are taken into account.

As for the T, $\sqrt{\text{סמק}}$ derived lexemes are always used as the equivalent of אָדָם; thus we must conclude that the Hebrew and Aramaic terms cover roughly the same range of referents. As a footnote, let us just complete the quotation of the T (for Isa. 63:3) which Gradwohl quotes only in part. The translation is a 'free' one, but preserves the double metaphor and the double colour reference of the passage:⁵⁰

מאי דין יסמקון טורין מדם קטילין ומישרין יפקון כחמר במעצרא.

1.5 Zech. 1:8, 6:2

1:8 ראיתי הלילה והנה איש רכב על סוס אדם
ואחריו סוסים אדמים שרקים ולבנים

6:2 במרכבה הראשונה סוסים אדמים

(6:3 ובמרכבה השלישית סוסים לבנים ובמרכבה הרביעית סוסים
ברדים אמצים) - [BH³: omit, gloss.]

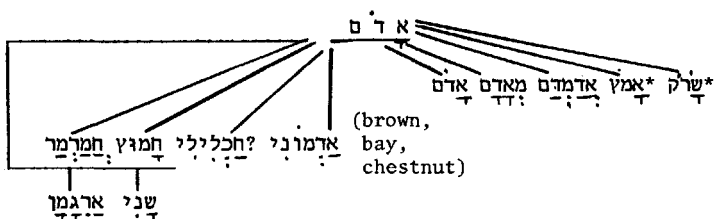
In order to illustrate the point in general Fronzaroli says that the association of 'white' with 'horse' is clearly interesting because an adjective which appears in a given corpus can be defined by the substantives to which it is linked.⁵¹ As a principle his words make sense; however, the fact that he picks the 'white' horse - and not the horses called אַמְצִים, בְּרִידִים, שְׂרָקִים, אַדְמִים - is symptomatic of the fact that some colour terms (his 'adjectives') are easier to define by their contexts than others.

אָדָם (sg. and pl.), like the other colour terms in the visions, is applied to lexemes denoting certain animals. If so, its point of reference should be similar to that of the פָּרָה אַדְמָה (Num. 19:2). There (1.2) אָדָם was interpreted as referring to the sector that today will be termed 'brown'. Therefore it seems reasonable that the same meaning be assumed for the present passage: סוס (סוּסִים) אָדָם, (אֲדָמִים) אָרָם, should be rendered 'brown horse(s)'. Indeed, some scholars have taken this path. Hertzberg

even remarks that the Arabs call 'brown horses' 'red', thus explaining the occurrences in 6:2.⁵² G.A. Smith⁵³ renders 'brown' in both visions. The ancient versions are of no particular help here - the LXX has *purros*, V - *rufus*, and T - סומק, טמון. Gradwohl,⁵⁴ as usual, states that the colour is 'red', or 'reddish brown'. Mitchell is the most specific: he talks about 'chestnut coloured' or 'bay' horses.⁵⁵ He further remarks that perhaps the colour description should not be understood too literally. The vision, he thinks, is an imaginary scene set against a concrete background and inspired by the appearance of riders (divided into troops) whose signs were perhaps dyed in different colours for easy identification. He claims, and rightly so (for 1:8 ff.), that the rider's actions are the crux of the vision, not the horses' colours. Therefore, he concludes, no symbolical significance should be attached to the colour of the horses themselves.⁵⁶ Rashi, for instance, connects אָדָם with blood and war in his 'midrash' to 1:8, but hints beforehand (ויש בהם צבעים הרבה ושבח הוא לו) that one should not belabour the referential meaning of the epithet אָדָם here. Ibn Ezra is even more definitive: for him אָדָם is apparently 'red' proper but, as he reminds us, we are dealing with a vision, and not with reality, and there is no reason why an 'unreal' horse should not be red.⁵⁷ On the other hand he rejects any symbolical interpretation of the colour as superfluous - והמפרש ... ואדום כמו חרם לשפוך דמים ואלה כדברי דרש הם. In 6:1 ff. the horses and their colours are possibly more important than in 1:8 ff. Rashi again interprets the colours as symbolical, assigning each colour to a nation hostile to Israel. However, Mitchell's point seems to be valid: the horses' colours function as distinguishing marks for the chariots; to attach a wider meaning to them would be unjustified by the text.⁵⁸ Let us summarize: the horses described are either 'real' ones, and in that case the colour denoted is 'brown' or 'chestnut'; or, the horses are imaginary, and in that case אָדָם means 'red' and the latter interpretation is utilized for symbolic representations of the vision. Again, the flexibility of אָדָם as a wide-range primary term - set against the later limited sense of it - is the cause of the difficulty.

The given date of the visions is 519 B.C.⁵⁹ = stage 3 in the history of biblical Hebrew. By this time אָדָם has quite a few partial synonyms that are subordinated to it - שֵׁרֶק (1:8), אָמָץ* (6:3) and חֲמוּץ (Isa. 63:1),⁶⁰ not to mention אָדְמוֹנִי, מְאָדָּם, אָדְמִיָּה, - and distinguishable from it as specific sectors within its territory. Yet even in this late period, because of the absence of a synchronous term for 'brown' and the definitely specialized use of צֹהֵב (as applied to hair, Lev. 13), אָדָם still retains its general referential status although this is detrimental to the clarity of communication. The most we can say is that by stated opposition אָדָם is neither לָבֵן nor שֹׁחַר, אָמָץ*, שֵׁרֶק, or בָּרָד*. By analogy to the פָּרָה אֲדָמָה (Num. 19:2) and by using extra-linguistic observations one arrives at the conclusion that אָדָם probably means 'brown', 'chestnut', or 'brown with a reddish tinge'. Alternately we could describe אָדָם both as a primary term (on the first level of opposition) and as a hyponym of itself, but with a more restricted referential meaning.

A schematic representation of the last alternative will look like this:



For examples of single terms that can function both as superordinates and as hyponyms (albeit in Modern Hebrew and in Modern English) M. Dagut's doctoral thesis⁶¹ can be consulted.

1.6 Song 5:10 דודי צח ואדום דג ול מרבבה
(v.11 - 62 (ראשו כתם פז קוצותיו תלתלים שחרות כעורב

Song. 5:10-16 contains the girl's description of her beloved's physical appearance. Within its literary context it constitutes a reply to the question, (v. 9) what is your beloved that you are so love-sick? One has the impression that the daughters of Jerusalem (vv. 8, 16) are slightly sceptical, or world-weary, and that what they really ask is:

what is so special about him that you feel and express such violent emotion? The girl proceeds to describe him from head to foot, invoking extravagant images of doves (12), scent and sweet smelling flowers (13), precious metals (14, 15), and nature (15). The imagery is complex - it evokes visual, tactile, and olfactory sensations - and extravagant in application, but precise in reference. Against this background, v. 10 (and vv. 11a, 11c) should be interpreted as possessing specific colour denotations, ones that are outstanding, peculiar - in the eyes of the speaker - to this singular young man, not the usual physical features of any ordinary young man, and in the sense that the beloved's appearance is better than average.

What is meant by צח ואדום? Much depends on our grammatical classification of this syntagm. If it is a hendiadys, then צח (in this context) should have the approximate referential meaning of אדום, and this meaning should be substantiated by other occurrences of צח (notably Lam. 4:7 - צחו מחלב) and of אדום and/or its derivatives. Alternately, צח and אדום can be considered separate attributes, that is, oppositions. In this case, what is the point of reference specified by each one of them? Syntactically both modify דודי - but what is the topical entity each of them refers to? Finally, while אדום has already been established as a primary colour term, צח has not. In Lam. 4:7 צחו (the verb form), because of its syntagmatic association with מחלב, must be considered a colour term, although not a primary one;⁶³ but this cannot be applied to the present passage without prior examination of the term in that particular context.

צחו in Lam. 4:7 is defined by מחלב as an equivalent of לבן (Gen. 49:12 - ולבן שנים מחלב) at least for that context. Therefore the question now is: what is the reference of לבן and, by analogy, of צחו and צח? It is usual to define לבן and consequently צח as 'white'; the comparison to 'milk' or 'snow' (Lam. 4:7) seems to strengthen this approach. Thus צח and אדום seem to be separate attributes. What do they actually describe? Rashi is quick to recognize the problem. He says, צח לבן כמו מחלב ואדום קילוס נוי בחור שהוא לבן ופניו, צח means 'white'; white is the colour of his skin (all over the body), while אדום (as equated with אדמוניות)

modifies, or reports the colour, of the young man's complexion. Indeed, this explanation is the only valid one for the 'white and ruddy' approach (so also Currie Martin⁶⁴). Rashi and Currie Martin equate אָדוּם and אֲדָמוֹנִי. This is by no means certain: each אֲדָמוֹנִי occurrence should be examined against its context in order to determine whether it describes 'complexion' or 'hair'. Here, however, the beloved's hair is described in the verse following ours. In fact, vv. 10-13 deal with the lover's appearance in the following order: i. His beauty in general (v. 10). ii. Various items of his head - hair (11), eyes (12), cheeks and lips (13). Structurally, item i can be assigned to 'complexion' only; hence both אָדוּם and צַח designate complexion colour. This recognition, although similar to Rashi's and Currie Martin's, rests upon a literary examination of the text but not on a אָדוּם = אֲדָמוֹנִי formula.

Even if we agree that צַח means 'white', what colour does אָדוּם refer to? Snaith talks about 'dark and ruddy from exposure to the sun'.⁶⁵ This interpretation is highly unlikely - the idea of burnt and tanned skin is expressed in Song. by שְׁחֹרָה-derived lexemes - thus שְׁחֹרָה (1:5), and שְׁחֹרָתָה (1:6). Rather, אָדוּם probably means (here as in Lam. 4:7) the colour of healthy complexion which is pleasing to the eye. Ullendorff points out that \sqrt{dm} derived lexemes in Hebrew as well as in Arabic and Ugaritic (and in some Cushitic languages) mean 'red', 'brown', and the colour of human skin. In Ethiopic, he says, \sqrt{dm} has lost all its 'colour' contents (which is carried by the root *qyḥ*) but means 'pleasant, beautiful, pleasing to the eye',⁶⁶ as healthy or (what would be approximately termed) 'pink' complexion really is. Similarly, the Egyptians called themselves 'red' in contradistinction to the 'black' foreigners:⁶⁷ the range of their אֲדָם-equivalent must have been similar to that of the Hebrew term, and the same concept probably underlies both linguistic usages.

Let us return to צַח and its status *vis-a-vis* אָדָם. As will be discussed in the relevant section⁶⁸ and as argued in the introduction to this study, לָבֵן, צַח, or any other colour term are usually defined by us according to the chromatic quality we think they denote. The colour sensation, however, is the product of the brilliance and saturation, as much of the

chromaticity, of the object viewed. We might feel that the 'white' element is the most significant feature of צַחֵהוּ, לָבָן, especially since they are compared to 'milk' and 'snow'. Alternately, though, the element of brilliance, lustre, and light might be equally important for the ancient poet and/or listener. If we understand צַח as 'brilliant, dazzling' (= the most prominent quality of snow, what we call 'pure white') rather than 'white', we cannot claim that צַח וְאֲדָמָה is a hendiadys: no instance in the OT points to the usage of אֲדָמָה or its immediate derivatives as markers for brilliance rather than some (although rather wide) chromatic value. Consequently, the 'hendiadys' solution is not acceptable. However, the syntagm can be interpreted thus: the lover's appearance is pleasant indeed - his skin glows, presumably with health (instead of 'is white'), while his complexion is pink. This, as Rashi says, is the conventionally proper colouring of a healthy young person's complexion.

It is tempting to view צַח וְאֲדָמָה as a compound (and thus subordinate) colour term referring to a boundary between לָבָן (as the superordinate of צַח) and אֲדָמָה with the above-mentioned denotation of a 'pinkish' colour (of complexion), but defined by means of using a compound, rather like the לָבָן וְאֲדָמָה of Lev. 13. Against this view it should be said that the structure - two lexemes with a conjunction between them - is different from that of לָבָן וְאֲדָמָה which, because of its reference as well as its form, should be considered a single lexical item (although formally it too is a compound).⁶⁹

To summarize: two interpretations are possible:

- i. צַח = 'white'; אֲדָמָה = 'pink' (or healthy complexion colour)
- ii. צַח = 'glowing'; אֲדָמָה = as above.

I prefer the second interpretation for literary reasons. Further, v.11 presents a similar problem: how are we to understand רֹאשׁוֹ כְּצֹהַר שֶׁחֹרֶת כְּעוֹרֶר if, unlike BH³, we want to retain the third part of the verse? The only solution is to say like Rashi for this verse: his head glows, is brilliant, like gold, while (the colour of) his hair is as black as a raven. The structure is of course different from that of צַח וְאֲדָמָה (v.10), but the emphasis on the dazzling appearance of the beloved is one of

the *leitmotifs* of this passage.⁷⁰

1.7 Isa. 1:18 ⁷¹לכו גא ונוכחה יאמר יהוה אם יהיו חטאיכם כשני, ⁷²כשלג ילפניו אם יאדימו כתולע כצמר יהיו

The Hif. lexeme derived from אָדָם is considered the most ancient example of אָדָם-related verbs in the OT.⁷³ BDB defines the Hif. as 'show redness';⁷⁴ Gesenius - 'be red' or 'make itself red';⁷⁵ אוֹצַר לְשׁוֹן הַמִּקְרָא - 'be red' (as for the Qal formation).⁷⁶ Gradwohl leans on the Arabic cognate and explains the form (together with the Qal) as 'be or become red'.⁷⁷ However, as Fronzaroli justly says and as we have previously seen, the fact that הֶאָדָם-based forms are usually translated or explained as 'red' depends not only on the reference but also on the system available in our own language.⁷⁸ To say that יאָדִימוּ in this instance - the only one of its kind in the OT - means 'be/become red' does not explain much; even our 'red', which is much narrower in scope than an ancient corresponding term, is still too wide a term to be specific. We can narrow the term further by forming a compound of 'red' + the name of an entity whose typical colour we want to convey ('blood red', 'tomato red'), or we can resort to an analogical construction ('red as blood') that would make the point of reference more explicit. (A third way is, of course, to coin new lexemes). Here the second possibility is utilized, together with a juxtaposition of the colour with an oppositional shade. יאָדִימוּ בְּחוֹלֶעַ is self defined: the general term is narrowed, and modified by כְּחוֹלֶעַ to mean 'the colour of crimson', 'scarlet' (אִם יִהְיוּ...כְּשֵׁנִים)⁷⁹ as opposed to that of 'wool' and 'snow'.⁸⁰

The primary, general nature of אָדָם becomes manifest again in this example: the immediate verbal context gives the lexeme its focus, a focus that is valid for this context only. חוֹלֶעַ can be considered a kind of אָדָם, but a substitution test - is אָדָם a type of חוֹלֶעַ? - is not satisfactory. The literary context of Isa. 1:18 ff. is, of course, prophetic and poetical. More difficult to determine is the circumstantial context of the passage. The previous verses represent the people of Judea and Jerusalem as totally corrupt. In 11-15, which might be imagined as uttered against the background of the worship in

the Temple, no colour term is explicitly mentioned. However, blood is referred to twice: דם of sacrificed animals (11.) and דמים (15), probably a double allusion to the 'blood' of v. 11, but also - in the figurative sense - the 'blood' of social injustice (16-17). The visual picture underlying 11-15 is that of hands that are bloodstained from sacrifice (which makes the owners of these same hands morally tarnished). The condition requires cleansing, both physically (רָחֹצוּ, v. 16) and spiritually (הִזְבִּחוּ), in order to remove the blood-red stains. This implicit picture of blood colour and the call for its removal is in a sense parallel to the 'crimson-white' opposition of v. 18. It is tempting to view vv. 18-20 as an elaboration of vv. 16-17,⁸¹ whether v. 18 ff. is a formal invitation for a lawsuit, a sarcastic remark, a straight-forward interrogative, or a rhetorical question.⁸² On the other hand, "it certainly seems doubtful whether Isaiah would, in immediate succession, first represent the people as red-handed criminals (v. 15) and then treat the redness of their sins as hypothetical (v. 18)".⁸³ In the light of vv. 19-20 (if the latter are not a fragmentary saying but a continuation of v. 18), obedience and consequently forgiveness are still possible and the reversal of fortune can be achieved by making the right choice, whereas the call for repentance in vv. 16-17 does not give out much hope. Therefore it is perhaps better to regard v. 18, or rather vv. 18-20, as an independent prophetic utterance whose theme is that of moral choice and its results (the reversal). The utterance, although unconnected to what precedes it, was probably inserted here because of the associative value of דם and יאדיו, blood and crimson, and the parallel idea of 'cleansing' in v. 16 and in v. 18.

1.8 Prov. 23:31

אל תרא יין כי יתאדם כי יתן בכיס⁸⁴
עינו⁸⁵ יתהלך במישרים⁸⁶

The dictionaries as well as Gradwohl⁸⁷ explain the Hithp.-lexeme derived from אָדָם as 'redden', 'grow or look red',⁸⁸ 'look red', or 'have a red sparkle'.⁸⁹ Gradwohl⁸⁷ goes on to note that there existed a poetical convention of calling wine or grape juice 'the blood of the grape' - not only in OT Hebrew (as in Gen. 49:11, Dt. 32:14),⁹⁰ but also in Ugaritic

(*dm.^c sm.* = 'blood of the vine'),⁹¹ and a comparable *dam erinni* - 'cedar resin' - in Akkadian.⁹² It is the last idiom that Gradwohl catalogues which is quite significant: the 'blood of the grape' is not necessarily named thus because of its 'red' colour (see below); rather, the wine is seen as the essence in liquid form, the 'life' of the grape, and as such it is comparable to blood. The colour association does exist, of course, but is either secondary or else equal in importance to the 'essence' notion. Even in Isa. 63:1-3, which is based on the blood letting = grape treading analogy, the image of forceful physical treading and subordinating is at least as important as the colour imagery.

The modern noun phrase 'red wine' (opposition: 'white wine') which immediately springs to mind as an equivalent of the biblical syntagm is far from specific. It refers to a relatively large class (more purple, brownish, or yellowish red than 'red' proper) of dark coloured wines, in contrast to light coloured wines that are called either 'white' or 'Rosè' but are never 'really' white.

Similarly, the difference between white (milky) coffee or tea and black coffee/tea is that of brightness - or the lack of it - more than that of the chromatic quality of the object described. In that sense **לְחַדָּם** is only a very loose colour term - it denotes the boundary of the sector where it merges with 'dark/black'.

Another line of investigation should be considered as well. The clarity and gleam of the wine are as telling and as fascinating as its colour.⁹³ Further, the meaning of $\sqrt{\text{dm}}$ in Ethiopic - 'be pleasant', or 'attractive' -⁹⁴ is perfectly suitable for our context: although wine seems pleasant, the result of excess drinking is disastrous. It must be pointed out, though, that if one accepts the latter explanation of **לְחַדָּם** one should not classify it as a colour term but rather as a derivative, or perhaps a lexeme which has colour connotations.

To summarize: Gradwohl⁸⁷ writes that the occurrence of **לְחַדָּם** is probably pre-exilic. The dating fits the description of **אֲדָם** and its direct verbal derivatives as primary colour terms denoting not only a wide range of chromatic values, but also other colour properties (saturation, purity). On the

other hand, if יְתָאֵדָם here means 'attractive, pleasant' (as in Ethiopic), then it is not a colour term at all, although its etymological link to the colour field is fairly transparent. I think that more decisive conclusions cannot be drawn - both interpretations are suitable for this particular context.

1.9 Lam. 4:7 זָכוּ נְזִירֵיהָ⁹⁵ מְשֻׁלַּג צָחוּ מַחֲלָב
אֲדָמוּ עֵצִים⁹⁶ מִפְּנִינִים סָפִיר גִּזְרָתָם
חֹשֶׁךְ מִשְׁחֹרֵת אֲדָמָם...

אֲדָמוּ is a verb formation, but stative in meaning.⁹⁷ As a matter of fact, an alternative construction of זָכִים* or יָהִיו זָכִים* - that is, a copula + noun - would have served equally well. This suggests that so-called colour adjectives and their derived Qal lexemes, wherever these derived terms feature in Biblical Hebrew, exhibit the same deep syntactic structure. It is perhaps the reason why we do not find a Qal formation for שָׁחַר⁹⁸ and לָבָן. The phenomenon is not unique to colour terms. There is no difference in deep structure between the וַיִּגְדֵּל of 1 Ki. 10:23 = 2 Ch. 9:22 (וַיִּגְדֵּל שְׁלֹמֹה מְכַל מַלְכֵי הָאָרֶץ) and the גְּדוּלָּה of 2 Sam. 13:15, וַיִּשְׁנָא, אֲמָנוֹן שְׁנָא גְּדוּלָּה מְאֹד כִּי גְּדוּלָּה הָשְׁנָא אֲשֶׁר שְׁנָא מֵאֲחֵבָה אֲשֶׁר אֲחֵבָה. A fuller discussion of the subject will be undertaken at the end of part II (Appendix, pp.172-174).

As an oppositional colour notion אֲדָמוּ belongs to the same series as the earlier Isa. 1:18, where we find the double pairs כְּצֶמֶר יָהִיו/יֵאֲדִימוּ כְּתוֹלַע, כְּשֹׁלֵג יִלְכִּינוּ/כְּשֹׁנִי which illustrate the same idea of colour contrast (see 1.7 above).

Song. 5:10, if צָחָה וְאֲדָמוּ are to be understood as two distinct terms (see 1.6), should perhaps be added to the list. In other words, these אֲדָמוּ/לָבָן or לָבָן-subordinated lexemes⁹⁹ serve as a conventional contrast, to be found in poetical compositions of three stages of biblical Hebrew (from stage 2 through to stage 4). Hence, the convention must have been very well rooted in Hebrew idiom.

From the referential aspect אֲדָמוּ belongs with Song 5:10. Although in both places the grammatical subject is a person (דָּוִד, Song.) or persons (נְזִירִים, Lam.), the topical subject is the complexion or skin colour of the person(s). In both occurrences אֲדָמוּ and אֲדָמָה denote the pinkish colour of a healthy

complexion. Gradwohl,¹⁰⁰ although hesitantly, remarks that perhaps a reddish, light brown, or suntanned colour is meant. It seems to me, though, that the concept of this type of skin is denoted by the usage of שָׁחַר, שְׁחָרָה, as in Song. 1:5-6,¹⁰¹ and is far from being considered as the conventional beauty ideal. Rather, as Gesenius¹⁰² says, 'whiteness' and 'redness' - or the light-coloured complexion that is the result of glowing health - are part and parcel of the description of youthful good looks. Although the referent of פְּנִינִים - rubies or corals?¹⁰³ - is far from clear, the exact identification of פְּנִינִים cannot influence the connotation of אֲדָמָה in the present context. The preceding metaphors - צֹהַר מַחֲלָב, מִשְׁלֵג...זָפוּ - and the following one - חֶשֶׁן מִשְׁחֹר - are clearly intended as exaggerations, emotive descriptions used in order to enhance the effect of the poem. In this literary context whether אֲדָמָה is described as more 'pink' (or 'reddish') than rubies or than corals is immaterial.

1.10 Ezek. 27:13. A suggestion has been made emending נֶפֶשׁ אֲדָם יוֹן תֹּבֵל וּמִשָּׁךְ הָמָּה רַכְלִיךְ בְּנֶפֶשׁ אֲדָם וְכָלִי נֹחַשֶׁת נֹחַנִי. נֶפֶשׁ אֲדָם to נֶפֶשׁ אֲדָם (Ezek. 27:13) to נֶפֶשׁ אֲדָם = 'red (expensive) wool cloth'. In this he follows Mazar's earlier suggestion.¹⁰⁶ Although the ancient VSS and the commentators have always understood נֶפֶשׁ אֲדָם as referring to the slave trade, the context - כָּלִי נֹחַשֶׁת and types of dear cloth - such as רִקְמָה, אֶרְגָּמָן, and בּוּץ are mentioned (v. 16) among other luxury goods - would benefit from the correction. If we accept this correction, although it is not corroborated by additional biblical evidence, this instance will belong with Isa. 63:2 (which is later in date), because אֲדָם modifies 'clothes' or 'cloth' in both passages. The precise reference of אֲדָם here will remain impossible to determine.

1.11 Summary

After analyzing all occurrences of אֲדָם and אֲדָם-derived direct verbal lexemes it was found that bib. אֲדָם is not the exact equivalent of our 'red'. The total sum of אֲדָם references in its various contextual environments points to a range that

is much wider than that of 'red'. Thus, the use of only one term to translate the OT Hebrew אָדָם is not always possible. This statement is perhaps borne out by the practice in the LXX and the V. The cognate Aramaic terms used for rendering אָדָם, אָדָם and its derivatives are never varied, probably because the scope the two groups cover, each within its own linguistic framework, is similar; that is, the structure of the same sector in both languages is, roughly speaking, parallel. In that sense אָדָם and אָדָם are symmetrical inter-dialectal equivalents. The area of reference אָדָם covers is:

- (a) 'brown' (of animals' hide) in Num. 19:2 (1.2) and in Zech. 1.8, 6:2 (1.5)
- (b) 'yellowish brown' (of lentils) in Gen. 25:30 (1.1)
- (c) 'blood colour' in Isa. 63:2 (1.4), and perhaps in 2 Ki. 3:22 (water - 1.3)
- (d) 'crimson' (metaphorically, of sins) in Isa. 1:18 (1.7)
- (e) 'wine colour', or non-chromatic colour properties, in Prov. 23:31 (1.8)
- (f) 'pink', healthy flesh colour in Song. 5:10 (1.6) and in Lam. 4:7 (1.9).

The range of אָדָם in Modern Hebrew, even when the term is loosely used, probably covers the area denoted by items (c), (d) and (e) above. In other words, the primariness of biblical אָדָם is enhanced by the fact that it is the chief (chromatic) colour term extant in our text. Therefore, its references are less restricted and much more given to manipulation and flexible usage than a comparable term in a language where the colour field as a whole is better developed.

B.2 לָבָן

2.0.1. לָבָן is the most frequent colour term in the OT. It appears 24 times as a nominal, another 5 times in directly derived verbal lexemes. Although secondary and tertiary terms in its sector (צֶהָד, צֶהָד*) are genetically unrelated to it (apart from the compound אֶדְמָהּ לָבָן), לָבָן appears as an element in at least eight names (be they generic, personal, or place names), and in other lexemes (לִבְנָה, לִבְנָה) that have indirect colour connotations.¹ As a colour term it features in texts dating from the period of the monarchy onwards. Its value as a primary term, then, is amply documented. Moreover, its basic semantic meaning is - judging by the evidence available - opaque. No connection between לָבָן as a colour term and any lexeme referring to an object whose typical colour property לָבָן has come to denote is to be found. This, of course, serves as further proof for the primariness of לָבָן, although it does not offer any clue as to its range of reference. Gradwohl does not share this opinion about the opacity of לָבָן. Even though he accepts that the biblical lexeme is far removed from its origin, he suggests - with a considerable amount of confidence - that לָבָן is derived from a prehistoric Hebrew word denoting 'milk'. This view, he argues, makes sense: it is 'natural' that a nation of nomads and shepherds would see the colour of milk as 'white' *par excellence*. Later, לָבָן had fallen out of use as 'milk' and its original reference came to be signified by חֶלֶב. In order to substantiate his argument further he cites Arabic, where lexemes from both $\sqrt{lb\bar{n}}$ and \sqrt{hlb} denote various types of milk.²

Tempting as it may be, Gradwohl's semantic reconstruction seems improbable on etymological as well as intrinsic Hebrew grounds. T. Fenton suggests that no North Western Semitic language has a $\sqrt{lb\bar{n}}$ -lexeme denoting 'milk', whereas classical Arabic, which has $\sqrt{lb\bar{n}}$ -derived lexemes signifying certain types of milk (see below), does not have a $\sqrt{lb\bar{n}}$ = 'white'. Apparently, he says, no Semitic language has the same consonantal base carrying both references to 'milk' and 'whiteness'.³ In fact, in Aramaic \sqrt{hlb} is reserved for 'milk', \sqrt{hwr} for 'white'.^{4,5} In Ugaritic, like in Hebrew, hlb means 'milk', while lbn (an element in names) is derived from an underlying, albeit non-attested, lbn = 'white' lexeme.⁶ In classical Arabic $halib$

is 'fresh milk', *laban* or *liban* 'sour milk', and compounds like *ḥlb lbn* are also attested,⁷ while the lexeme denoting 'white' is *abyad*. In Akkadian there are two *labānu* roots, but neither denotes 'milk' or 'whiteness':⁸ 'milk' is usually *šizbu*,⁹ while 'white', 'light coloured' (even 'light grey') is denoted by *peṣû*.¹⁰ The *ḥlb* root of Hebrew, Aramaic, and Ugaritic appears in Akkadian in dialectal = Assyrian occurrences only as '*halābu*' or '*halāpu*', meaning 'to milk'.¹¹ It would appear, then, that the concepts of 'milk' and 'whiteness' are never defined by the same lexeme, be it $\sqrt{h\bar{l}b}$ -derived or $\sqrt{l\bar{b}n}$ -derived, in the Semitic languages cited. When these observations are applied to OT Hebrew, internal considerations should decide the issue by reinforcing, or over-riding, the cognate evidence. This would be our task in the following paragraphs.

לבן imagery in OT texts is concerned more with snow than with milk. This is primarily a quantitative judgement which in the case of biblical Hebrew cannot be conclusive.¹² More important is the fact that the 'snow' similes are not context-bound, and/or limited to a single chronological niche. *פֶּשֶׁלֶג* (Isa. 1:18) and *מִשְׁלֵג אֲלֹפִיךָ* (Ps. 51:9) are explicit examples.¹³ *זָכוּ נִזְרִיָּה מִשְׁלֵג* (Lam. 4:7) does not seem lesser in 'whiteness' than its parallel *צָחוּ מַחֲלֵב* (both *צָחוּ* and *צָחוּ* function here as subordinates to the superordinate *לָבָן*¹⁴). Although the formula *מִצְרַע פֶּשֶׁלֶג* (2 Ki. 5:27) / *מִצְרַעַת פֶּשֶׁלֶג* (applied to 'hand' - Ex. 4:6; to a person - Num. 12:10) does not contain the term *לָבָן* and probably refers to the texture of Psoriasis foci rather than to their colour,¹⁵ it is clear that 'white' can be signified by a comparison to snow. Other oblique references to 'whiteness' are specified by *יָהִיו כְּצֶמֶר יָהִיו* (Isa. 1:18d, parallel to *כְּשֵׁלֶג יִלְכִּינּוּ*) and *כַּעֲיֵן הַבְּדֹלָה* (Num. 11:7).¹⁶ On the other hand, where *לָבָן* is specified by 'milk' the context-bound usage does not necessarily indicate a typical quality of 'whiteness'. The 'milk' imagery of Gen. 49:11-12 might have been conditioned by the 'wine' hyperbole which precedes it.¹⁷ In Lam. 4:7 *חֲלָב* is not superior to *שֵׁלֶג* as a colour specification for *לָבָן*. In short, we have no evidence - either in cognate languages or in literary Hebrew usage - for treating *לָבָן* as a semantically semi-transparent derivation of a base lexeme denoting 'milk'.

2.0.2 As in the case of אָרָם, it would be inaccurate to define לבן as the equivalent of a single term - in this case 'white' - and to translate it accordingly, for its primariness is reflected in its wide scope. It refers to areas which are low in chromaticity but, at the same time, relatively high in brightness. This feature of 'loose' reference is precisely what makes the term highly operational. On the other hand, when greater specifications within this same sector are necessary, other linguistic means have to be resorted to. A case in point is the Mishnaic comment in Neg. 1:1,2 (for Lev. 13), where various shades of לבן are distinguished on both scales - that of light/darkness and that of chromaticity:

מראות נגעים שנים שהם ארבעה. בהרת עזה כשלג שניה לה כסיד ההיכל והשאת כקרום ביצה, שניה לה כצמר לבן - דברי רבי מאיר. וחכמים אומרים השאת כצמר לבן שניה לה כקרום ביצה.¹⁸

2.0.3 In the following sections I intend to discuss first the nominals and then the verb occurrences. The usual order of the Hebrew text will be adhered to, apart from the joining of the Zech. instances (1:8; 6:3,6, where לבן modifies 'horses') to Gen. 30:35 (where לבן modifies 'goats'), and that of Ps. 51:9 to Isa. 1:18 (where formal as well as literary criteria dictate this arrangement).

2.1 לבן as colour marker for domestic animals.

2.1.1 Gen. 30:35 והטלאים¹⁹ ואת כל העזים הנקדו והטלאות כל אשר לבן בו וכל חום בכשבים.

If כל אשר לבן בו is understood as an explanatory apposition to כל העזים הנקדו והטלאות, the expression probably refers to those that have לבן spots, or marks, on their skin. Thus Neophyti I has²⁰ כל דאית ביה שומא חיורא, that is, a spot or mark,²¹ while Rashi uses the only biblical word that might approximate 'mark, spot',²² כל אשר היתה בו חברבורת לבנה. Sa'adia Gaon²³ understands עקדים as those whose ankles are of a different colour, as if they had been bound (from עקד, Gen. 22:9²⁴). Therefore he interprets the appositional phrase thus: לפי שהעקודים כולו שחורים ואין בהם לובן אלא בקרסולי רגליהן. Clearly, the sense of לבן here is defined by *טלוא, *נקד and *עקד (if we do not dispose of the last one as a corruption of נקדים). Still, its reference is far from clear. As stated above, לבן may denote any colour property characterized by both a high value of

brilliance and a low value of chromaticity. As such it covers the slot which in modern languages would be filled by an equivalent of 'light coloured', 'beige', or something similar. The lack of biblical terms which are peripheral to 'white' or 'black' makes the utilization of לָבָן for 'light coloured' and שָׁחֹר for 'dark' almost inevitable. On the other hand, the consistent interpretation of לָבָן, wherever it occurs, as its modern parallel 'white' is misled and misleading - because 'white', לָבָן in Modern Hebrew, or any of the contemporary equivalents in languages spoken by members of industrial societies are much narrower in scope than biblical לָבָן. Perhaps Skinner²⁵ is right in saying that the employment of לָבָן here may have been motivated by the wish to have fun on Jacob's father-in-law by using a word-play on his name. Although our text refers to לָבָן in goats (חִישִׁים, עִזִּים), perhaps a short note on Isa. 1:18, כְּצֹמֶר יִהְיוּ, is not out of place here. צֹמֶר *per se* refers to wool in its natural state.²⁶ It is difficult to compare the 'whiteness' of natural wool before it has been cleaned and bleached to the 'whiteness' of snow (כְּשֶׁלֶג יִלְבִּינוּ, or in Ps. 147:16, שֶׁלֶג כְּצֹמֶר). Nevertheless, there is a literary convention of treating שֶׁלֶג and צֹמֶר as synonyms for designating the same, or approximately the same, colour phenomenon. Now, that this is a literary convention only and not an equation of referents can be gleaned from the Mishna Neg. 1:1 f. quoted above (2.0.2). In the Mishna the semantic sector לָבָן covers is divided into graded segments, and the segments are designated by means of colour specifications. It is implied that an unspecified לָבָן is inadequate for diagnostic purposes because it refers to such a wide area that colour entities typified by snow, the whitewash of the temple, eggshell and wool (צֹמֶר לָבָן), in that order, are all included in it. This primariness of the term - which makes it too general for medical-cultic practice - is what allows the snow/wool colour parallelism.

However, when צֹמֶר is employed as a specification of לָבָן apparently bleached or cleaned wool (not natural) is meant. The Mishna (above) has צֹמֶר לָבָן, and the T to Isa. 1:18 כְּצֹמֶר יִהְיוּ has כְּצֹמֶר נָקִי יִהְיוּ.²⁷ The difficulty arising from the limited scope of לָבָן in post-biblical language, together with the fact that the colour properties of both שֶׁלֶג and צֹמֶר are

referred to by **לָבָן** in biblical language, prompted Qimhi to state explicitly that we should interpret the **צֶמֶר** of Isa. 1:18 not only as **צֶמֶר נָקִי** (as in the T), but specifically **לָבָן כַּצֶּמֶר** (as in the Mishna).²⁸ Another Jewish commentator who sees the problem and points it out is the Vilna Gaon²⁹ who, following the above mentioned Mishna, says: **כַּצֶּמֶר יִהְיוּ - כַּצֶּמֶר שֶׁהוּא לְמַטָּה מִן הַשֵּׁלֶג**.³⁰

- 2.1.2 Zech. 1:8 **רָאִיתִי הַלֵּילָה וְהִנֵּה אִישׁ רֹכֵב עַל סוּס אָדָם וְהוּא עֹמֵד בֵּין הַהֹדָסִים... וְאַחֲרָיו סוּסִים אֲדָמִים שְׂרָקִים וְלִבְנִים**
- Zech. 6:2 **סוּסִים אֲדָמִים... סוּסִים שְׁחֹרִים**
- 3 **סוּסִים לִבְנִים... סוּסִים בְּרָדִים**³¹ **אֲמָצִים**
- 6 **הַסּוּסִים הַשְּׁחֹרִים... וְהַלִּבְנִים... וְהַבְּרָדִים**
- 7 **וְהָאֲמָצִים...**

לָבָן, when applied to '**סוּס(ים)**' = 'horse(s)', is defined as a colour term by **שָׁחַר**, **אָדָם**, **אֲמָץ** and **בְּרָד**,³² all of which serve to modify '**סוּס(ים)**' in the same context. In contradistinction to the syntagm **סוּס אָדָם** or **אֲמָצִים (בְּרָדִים)**, the extralinguistic reference of **סוּס לָבָן** does not depend on the question of the existence or non-existence of symbolism in the two visions.³³ That the term means 'white' here is made probable by the fact that ancient extra-biblical sources maintain that 'white' horses were not unknown in victory marches - perhaps because 'white' was sometimes associated with victory.³⁴ In his commentary to Rev. 6 Charles cites Herodotus, who attributes this practice to Xerxes and his general Mardonius, and Dio Cassius, who says that Julius Caesar's triumphant car was drawn by four white horses.³⁵ We must conclude that Zechariah could have known that white horses, although rare, did exist; and that whether the symbolism meant in our passages should be interpreted in political terms, or (at least in ch. 1) abandoned altogether,³⁶ makes little difference to the understanding of **לָבָן** within the two visions.

- 2.2 Gen. 30:37 **וַיִּקַּח לוֹ יַעֲקֹב מִקַּל לִבְנָהּ לֹחַ וְלוֹז וְעֶרְמוֹן וַיַּפְצֵל בְּהֵן פְּצִלּוֹת לִבְנֹת מַחֲשֵׁה הַלָּבָן אֲשֶׁר עַל הַמַּקְלוֹת**

Jacob performs an act of sympathetic magic - the streaks peeled in the bark of the *Styrax*, or the *Populus alba*,³⁷ and the other trees are expected to exert visual influence on the pregnant sheep and on their yet unborn offspring.³⁸ Does **לָבָן** here mean 'white'? **פָּצַל** and its nominal derivative **פְּצִלּוֹת** appear

only here, but are well documented in cognate languages - in Aramaic dialects, Arabic³⁹ and MH.⁴⁰ מַחֲשֵׁף, the nucleus of the phrase which is appositional and explanatory to לְבָנוֹת, ⁴¹ is a *hapax legomenon*, but the root it is derived from is well attested in biblical literature (in Josh., Isa., Jer., Hag., Jo., and Ps.).⁴² There is no doubt that the layer under the bark of any fresh rod is paler than the bark itself. However, the manner in which we define it - as 'white' proper or simply as 'pale' - depends upon the semantic range we attribute to 'white', לָבָן or their parallels in modern languages.⁴³

2.3 Gen. 49:12 חֲכִילִי עֵינַיִם מֵיָּנִין וְלָבָן שְׁנַיִם מַחֲלָב ⁴⁴

The designation of לָבָן in this verse should be defined by the juxtaposition of חֲכִילִי/לָבָן, חֲלָב/יָּנִין, as opposite members of the poetic parallel structure.

Traditionally, Jewish commentators understood חֲכִילִי as a colour term. In both T Onkelos and Neophyti I the colour opposition סְמִיק (= חֲכִילִי) and חֵיוֹר (= לָבָן) features in the haggadic expansion to this verse. Rashi,⁴⁵ Ibn Janah ('אדמימות'),⁴⁶ and Qimhi⁴⁷ follow the Aramaic translation. On the other hand, modern scholars prefer to interpret חֲכִילִי (and חֲכָלָה - Prov. 23:29, again in a syntagm with עֵינַיִם and in the context of wine-drinking; החכילה (גבעה) - 1 Sam. 23:19, 26:3; and perhaps the personal name חֲכָלָה) as 'dull', 'vague', assuming - on the basis of cognate evidence - a shift from a basic meaning of 'dark', 'dim' to 'dull'. So Gesenius,⁴⁸ BDB,⁴⁹ KB,⁵⁰ Skinner,⁵¹ Henton Davies,⁵² Ball,⁵³ and others⁵⁴. Indeed, חֲכִילִי עֵינַיִם here is used in an ameliorative manner (in contradistinction to Prov. 23:29). Dullness, or blurred vision resulting from excessive drinking seems more appropriate to our metaphor than a bloodshot (= אָדָם) condition of the eyes.

Now, if חֲכִילִי is 'dark' or 'dull', 'vague', we would expect its parallel to mean 'bright' rather than 'white'; in other words, the crux of the metaphor would be placed on a brightness/lack of brightness scale rather than on a chromaticity scale. On the face of it the juxtaposition יָּנִין/חֲלָב prevents such an interpretation, especially in the light of expressions like אֵל תֵּרָא יָּיִן כִּי יִתְאָדָם (Prov. 23:31), דָּם עֲנָבִים (// יָּיִן, Gen 49:11), and דָּם עֲנָב // חֲמֶר (Dt. 32:14), which have been interpreted as defining ordinary wine as typically 'red' ⁵⁵ Wines which

were not designated אָרֶם or 'red', even after considering the loose manner in which 'red' was used for the classification, were known in the ancient world: in S.M. Paul's list of correlating terms in Mesopotamian and Rabbinic literature there are terms denoting 'white' and 'dark' wine as well as 'red'.⁵⁶ In addition, the figurative usage of דֶּם עֵנֶב/לֵם might have stemmed from the equation of 'blood/juice' as essential liquids, not only from the colour similarity as in the case of some types of wine.

What about חֶלֶב, then? The colour properties of the latter cannot be disputed. On the other hand, the occurrence of the term here should be seen against the background of its word context. The basic theme presented in vv. 11 and 12a is that of plentiful quantities of wine: the repetition of the metaphor (five times!) turns it into a hyperbole. The introduction (v. 12b) of a new abundance element (חֶלֶב) and consequently a new colour element seems surprising from the literary-critical point of view.

There is a literary convention in biblical poetry of pairing off חֶלֶב and יֵין as components of a parallel (or joined) pair signifying agricultural abundance. Although חֶלֶב is more frequently paired with דֶּבֶשׁ or חֲמָאָה⁵⁷ we find יֵין and חֶלֶב in Song. 5:1 - שְׁתִּיתִי יֵינִי עִם חֶלֶב and Isa. 55:1, וּבִלְא מַחִיר יֵין, וּחֶלֶב עֵסִים well established as a componental equivalent of יֵין in poetry and in the prophetic books,⁵⁸ is paired with חֶלֶב in Jo. 4:18.⁵⁹ In all these instances יֵין//חֶלֶב serve as symbols of plentiful food. In other words, the introduction of the 'חֶלֶב' and 'colour' aspects in our verse were dictated by literary convention, not by subject matter alone; and as 'wine' is not necessarily 'red' (אָרֶם), and חֲכִילִי means 'dark', the contrast 'dark/dazzling' (= לָבֵן) is secondary, literarily speaking, the consequence of the organization of חֶלֶב//יֵין into a unit of parallelism.

The exact meaning of the מ of מִיָּין, מִחֶלֶב, has been much disputed.⁶⁰ The best solution is probably to render with Ibn Ezra,⁵⁵ Dillmann,⁶¹ and von Rad,⁵⁴ *from* abundance of wine/milk, or: *with* wine/milk. Because Gradwohl brings to the discussion his preconception of לָבֵן as a derivative of a lexeme for 'milk',⁶² he has no alternative but to champion the comparative usage of

the ⁶³ m . His interpretation can be rejected on literary grounds: the hyperbole is centred around the idea of abundance and fertility rather than that of colour analogy, which is only incidental to the main theme.

2.4 Ex. 16:31 (JE) $\text{והוא כזרע גד לבן וטעמו כצפיחת בדבש}$
(Num. 11:7 - $\text{והמו כזרע גד הוא ועינו כעין הבדלח}$)

There is virtually a general agreement that גד refers to 'coriander', and that זרע גד לבן refers to the yellowish-grey exterior of the coriander seed.⁶⁴ If we agree with Kohut, who says $\text{לבן הוא המראה הבהיר}$,⁶⁵ there is no conflict between our description and that of Num. 11:7. The colour of בדלח - 'a resinous substance, transparent, gelatinous, and commonly yellowish in colour'⁶⁶ - would then be included within the referential range of לבן . However, if we narrow the range to לבן = 'white', problems of interpretation can hardly be avoided. Thus Rashi is obliged to comment that the first part of the comparison - כזרע גד - describes the shape which is, in addition, white in colour.⁶⁷ Ibn Ezra does not decide whether 'coriander' is the correct identification for גד and prefers to declare that he 'does not know'.⁶⁸ Gray finds a contradiction between the two verses, and says that two different colours are described⁶⁹ and mentions how Josephus overemphasized the 'white' element, to the point of comparing it with snow (Ant. III, 1:6).⁷⁰ However, this apparent difficulty is removed when the designation of לבן is understood properly.

2.5 Lev. 13: (7 times) שער (הפר) לבן (w. 3,4,10,20,21,25,26).

(3 times) בהרת לבנה (vv. 4,24,38).

(2 times) שאת לבנה (vv. 10,19).

(2 times) $\text{נגע הפר לבן, נהפר ללבן}$ (vv. 13,17).

(1 time) בשר חי ונהפר ללבן (v. 16).

2.5.0 Four variables have to be considered for the diagnosis of skin and hair diseases which may render the sufferer ritually unclean:

a. The colour of the sore (נגע). That 'colour' includes factors of brightness and not only hue is apparent from the linguistic coinage of בהרת and בהק , which within biblical literature are unique to Lev. 13-14,⁷¹ and from the syntagms בהרת פחות לבנת (Lev. 13:39), כהה הנגע (v. 6), and בהרת (בהרת) (v. 28).

b. The texture of the sore and its position on the skin. שֵׂאֵת is an 'eruption, swelling';⁷² סַפַּח - an 'eruption' or a 'scab'.^{73 74}

c. The colour of the hair sprouting from the sore or scab.

d. The spreading of the disease over wider areas of skin during a certain period of time. This last factor lies outside the scope of the present thesis.

2.5.1 For diagnostic purposes, שֵׁנֶר לָבֵן is an indication of skin disease. Like צֹהֵב (נִתְּחַל - vv. 30, 32, 36) - but in contradistinction to שֹׁחֵר (vv. 31, 37), whose renewed growth is a sign that the disease is receding - it represents a deviation from the norm. Gradwohl is probably right in asserting that the actual colour designated is 'greyish-white',⁷⁵ or else it is simply 'light-coloured'.

2.5.2 The לָבֵן of אֲדָמָם לָבֵן (vv. 19, 24, 42, 43),⁷⁶ which is opposed to בְּחֹרֶת כְּהוֹת לָבֵנָה (v. 39), is of similar diagnostic value. Mainly because of their obvious secondary structure (syntagmatic vs. monolexemic) לבן אֲדָמָם and בהרת כהות לבנה will be assessed as non-primary, and their denotations discussed elsewhere. For our immediate purpose, however, it is significant that לבן אֲדָמָם, although an independent colour designation, is presented as visually close to לָבֵן.

According to Gradwohl the reference of לבן in these vv. is determined by the understanding of the syntagm כְּשֵׁלַג (ת) מְצֹרֵעַ (Ex. 4:6; Num. 12:10E; 2 Ki. 5:27), which he interprets as an indirect colour indication⁷⁷ analogous to לבן in our chapter.⁷⁸ This equation of 'snow' = 'white' is not in accordance with Mishna Neg. 1:1, 2 (cited above⁷⁹), where four degrees of 'whiteness' are mentioned, only one of them comparable to snow. (We must remember that the cultic (cleanliness) context of the passage would exclude the possibility of a loose comparison such as that of the parallel pair צֹמֶר//שֵׁלַג in poetic contexts). Furthermore, the צֹרֵעַת mentioned here and elsewhere in the OT usually signifies 'psoriasis' as well as severe cases of other skin diseases.⁸⁰ In his authoritative article on biblical צֹרֵעַת Hulse states that "snow-like desquamation with underlying redness was the chief characteristic of צֹרֵעַת",⁸¹ as is gathered from the text itself. In his

own words, "The biblical evidence of the nature of צרעת is more extensive than is at first apparent. The disease was compared to snow, not because the skin was white ('white as snow' is a mistranslation) but because the most characteristic sign of the disease was the presence of scales which rubbed off the surface of the skin like flakes of snow".⁸² The poetic idiom כשלג ילבינו (Isa. 1:18) should not, then, be used as a yardstick for the prose-anchored מצורע כשלג; and the extra-linguistic referent (psoriasis) indicates shiny-silvery scales, together with inflamed areas (לבן אדמדם) and 'bleeding spots' (בשר חי), which are characteristic features of the diseases grouped under the blanket-term צרעת.⁸³

To conclude: לבן in this chapter is not 'snowy-white'. It denotes a property of brightness more than of hue, and its application was therefore conceived of as rather inaccurate colourwise by successive generations (see the Mishna). Perhaps it should be translated as 'light-coloured', 'pale', which is much more appropriate, unless again we always bear in mind that biblical לבן is of a wider reference than our 'white'.

2.5.3 Noth says that "at least the basic form of both chapters can be claimed as 'pre-priestly' ... A more exact dating of the first draft and of its further amplifications is no longer possible".⁸⁴ If we accept his opinion, or that of others who champion the relative antiquity of P⁸⁵ or its sources (against the Wellhausen school), the general, wider scope of לבן is further explained as being quite early, possibly from pre-exilic times, when the focus of the reference is still concentrated on the dimension of brightness rather than on hue or lack of hue.⁸⁶

2.6 Qoh. 9:8 בגדים לבנים : בכל עת יהיו בגדיך לבנים = 'white clothes' were looked upon as representing purity,⁸⁷ festivity,⁸⁸ or an elevated social status.⁸⁹ Interestingly enough, the syntagm בגדים לבנים does not appear in the bible again. Its topical equivalents are בגדי שש (Gen. 41:42 etc.), חכריך פוץ (Esth. 8:15), or מעיל פוץ (1 Ch. 15:27); לבוש... חכלת וחוור (Esth. 8:15); and מכנסי פשתים (Ex. 39:28). Of these terms denoting 'white clothes' (made of certain materials), MH has בגדי פשתן (Bab. Yoma 7a), בגדי פשתן (Bab. Mets. 29b), but mainly בגדי לבן,⁹⁰ an idiom that is similar to that of our verse. It seems, therefore, that בגדים לבנים is of a late usage, properly

belonging more to MH than to biblical vocabulary which has other terms that the syntagm **לבן בגדי לבן** supplants in later language, inasmuch as **בוץ** is a later substitute for **שש**.⁹¹ Thus the syntagm **בגדים לבנים** (although its individual components are quite frequent in all strata of biblical literature⁹²) is an indication - one of many - for the relative lateness of the language used in Qoheleth, and for the close affinities between the latter and MH. And, lastly, the term's closest equivalent in the OT is to be found in (late) Biblical Aramaic, Dan. 7:9 - **לבושה פתלג חור**.

2.7 Hif. (Isa. 1:18; Ps. 51:9; Jo. 1:7) = 'become, turn
לבן.

2.7.1 Isa. 1:18 **אם יהיו חטאיכם כשנים כשלג ולבנינו**
אם יאדימו כתולע כצמר יהיו

Ps. 51:9 **תכבסני ומשלג אֶלְבִּין**

The Isa. 1:18 metaphor of repentance or reversal is based on an **אדם לבן** - **לבן** contrast. The occurrence of **לִבְנֶה** in a verb formation which appears twice in the Hif. conjugation within a passage that can clearly be attributed to classical Hebrew of stage 2 (pre-exilic), constitutes a proof for the productive potential of the nominal form **לבן** and its status within its sector although, admittedly, the occurrences of **לבן** verb forms are far from numerous.⁹³ The specification of **לבן** the verb **לִבְנֶה** designates is stated directly: **פִּשְׁלֵג**. In contradistinction to the syntagm **כשלג (ת) מצרע** - where the texture, not the colour, is the focus of the comparison (2.5.2) - wherever the actual colour of snow is evoked, an adjectival or verbal form of **לבן** was felt to be necessary. Two of the three Hif. forms (Isa., Ps.) are contextualized in this manner. A similar idiom, this time with a nominal, occurs in biblical Aramaic - **לבושה פתלג חור** (Dan. 7:9).

The Isa. 1:18 **אדם/לבן** contrast (of various specifications: **כצמר**,⁹⁴ **כשלג** // **כשני (ם)**) is particularly suited to the context. If the passage (vv. 18-20) is a continuation of the previous section and not a randomly appended independent section, the visible contrast between blood (of the slaughtered animals, vv. 11 ff.) and white garments (of the priests?) in the court of the Temple is perhaps adequate motivation for the prophetic utterance.⁹⁵

The figurative equation of snow-white colour and purity, or lack of sins, is repeated in Ps. 51:9 and in Dan. 11:35 (the latter with another verb formation, see below, 2.8.1). This usage is probably the link to the semantic shift apparent in the Pi.(?) and Hithp. occurrences in Dan. 11:35, and 12:10 respectively.⁹⁶ However, the Hif. form in our verse should not be considered as 'late', or as belonging to the post-exilic (stage 4) period. Although Gradwohl dates the psalm to the exilic or post-exilic period, other scholars do not necessarily agree with the opinions he cites and accepts.⁹⁷ As other scholars point out the psalm, or at least its original nucleus (excluding vv. 20-21, or 19-21), reflects prophetic teachings of the pre-exilic (stage 2) period.⁹⁸ Perhaps the fact that $\sqrt{\text{לָבַן}}$ Hif. forms+ (the comparison to) שֵׁלֵג are attested only twice is an additional indication that they belong to the same chronological stratum, inasmuch as they are embedded in the same ideological context, that of repentance. On the other hand, one must admit that the usage in Ps. 51:9 could be a literary borrowing from Isa. 1:18.

2.7.2 Jo. 1:7 שֵׁם גִּפְנֵי לִשְׁמָה וְתִאֲנָחִי לִקְצָפָה
חֹשֶׁף חֲשֹׁפָה וְהַשְׁלִיךְ ⁹⁹ הִלְבִּינוּ שְׂרִיגֵיהָ

The colour described is that of vine branches whose bark has been stripped by locust. As in Gen. 30:37 - מחֹשֶׁף הִלְבֵּן ¹⁰⁰ - 'grow white',¹⁰¹ 'bleached',¹⁰² or 'pale' are all possible definitions for the reference of הִלְבִּינוּ.

2.8 $\sqrt{\text{לָבַן}}$ Pi.? (Dan. 11:35) and $\sqrt{\text{לָבַן}}$ Hithp. (Dan. 12:10).

Dan. 11:35 ¹⁰³ וּמִן הַמַּשְׁכִּילִים יִכְשְׁלוּ לְצִרוּף בָּהֶם וּלְכַרֵּר וּלְלַבֵּן

עַד עַתָּה קֵץ כִּי עוֹד חֲזוֹן לְמוֹעֵד

12:10 יִתְבַּרְרוּ וְיִחַלְּפוּ וְיִצְרְפוּ רַבִּים

2.8.1 $\sqrt{\text{לָבַן}}$ is written as a Pi. but punctuated as a Hif. form, although the preformative ה and the ' which are characteristic of the Hif. construction are missing. Is the 'double anomaly'¹⁰⁴ of the presumed Hif. form an indication that the punctuation is wrong, and that the original consonantal text represented a Pi. formation? In favour of this identification we can cite four factors. One, that other Hif. forms in our text have the intransitive force of 'be', 'grow', or 'become' $\sqrt{\text{לָבַן}}$,¹⁰⁵ whereas a Hif. form here would be of the transitive ('make', 'cause to become' $\sqrt{\text{לָבַן}}$) type.¹⁰⁶ Secondly, the Hithp. form (12:10) can

be more easily connected to a basic Pi. form rather than to a Hif. one.¹⁰⁷ Thirdly, there is evidence of a properly punctuated Pi. form in this verse in some Hebrew MSS.¹⁰⁸

Perhaps more weighty is the semantic evidence: $\sqrt{\text{לָבַן}}$ Pi. appears quite frequently in MH in contexts of metal-smelting,¹⁰⁹ cleaning, bleaching (wool), and - figuratively speaking - cleansing of sins.¹¹⁰ Both the word context of 11:35 (and of 12:10) - the lexemes לָבַן and לָבַן ¹¹¹ - and the literary context point to a metaphor of metal-smelting and polishing, which stands for the principle of moral trial and selection. Consequently, לָבַן here cannot be considered a full-fledged colour term. Properly speaking it belongs to the field of metal-processing (and, according to MH evidence, wool-processing) more than to that of colour: it designates a derived sense of 'purity, cleanliness' that is the result of the equation לָבַן (see also 'בגדים לבנים')¹¹² = purity.

2.8.2 Similarly, cleanliness and purity are denoted by יָתֵלֵבֵנִי . Therefore a translation based on the lexeme 'white' or on an equivalent thereof will be inadequate. 'Will make (themselves) pure' or 'clean' is a far better rendering of the meaning of the lexeme.¹¹³ On the other hand, this obscures the fact that יָתֵלֵבֵנִי carries an 'abstract', figurative sense that relates to the symbolic properties attached to the extra-linguistic referent of לָבַן , and especially to the focus of the term ('white' → 'clean' → 'pure').

2.9 Summary

2.9.1 לָבַן is a primary term which designates any colour property from 'clear, light in colour' to 'white' proper.¹¹⁴ Therefore, its exact denotation is specified, when required, by a comparison to an object whose typical feature is 'whiteness' (שלג), or by a syntagm of a secondary or tertiary nature (לבנה אדמדמת, Lev. 13:19 ; כהות לבנה, Lev. 13:39).

There is no reason to believe - with Gradwohl¹¹⁵ - that לָבַן originally referred to 'milk'. Neither the text nor the evidence of cognate languages support this assumption (2.0.1). On the contrary: if - with Gradwohl¹¹⁶ - we accept that לָבַן = 'brick' and its verbal derivative $\sqrt{\text{לָבַן}}$ II = 'make bricks' represent a polysemic development from our לָבַן through metonymy of the referent (= the 'light colour of sun-baked bricks'¹¹⁷),

and is not a loan-word from Akkadian¹¹⁸ - then what the colour לבן_{דד} refers to should be understood as 'light' in general, whereas the colour of milk is but one segment within the area covered by the primary term. Gradwohl himself is aware of the fact that לבן_{דד} is wider in scope than "weiss", but stops short of drawing the right conclusions.

2.9.2 Berlin and Kay have established the synchronous appearance of 'dark'/'light' — 'white'/'black' as basic antithetical pairs in most, if not all, world languages.¹¹⁹

It would have been tempting to try and reconstruct a basic meaning of 'light' for לבן_{דד}, 'dark' for שחור_{דד} (section 3. below). However, this hypothesis is not supported by the text¹²⁰ nor by cognates as far as לבן is concerned, although it might be approached a little less hesitantly in the case of שחור_{דד}.

B.3 שח(ו)ר

3.0.1 שח^ו derived primary colour lexemes appear in the OT 8 or perhaps 9 times (see below). Their distribution is as follows:

- שח^ו - 6 times: Lev. - twice (13:31, 37); Zech. - twice (6:2, 6); Song. - twice (1:5; 5:11).
- שח^ו - (Qal lexeme) - once: Job (30:30).
- שחור^ו - (nominal, name of colour quality): once in Lam. (4:8).

In addition, כשח^ו (Jo. 2:2) should probably be read יום חשך ואפלה יום שח^ו - 'dawn', in the word context of יום חשך ואפלה יום ענו וערפל (v. 2a)² and within the description of the descending locust multitudes, does not make much sense.

As far as syntagmatic relations are concerned, שח^ו and its immediate derivatives exhibit little variety. They modify שער^ו = 'hair' 3 times (Lev., Song.), 'human skin' or 'complexion' - twice (Song., where the grammatical subject is the pronoun אנכי, once; Job, where the direct subject is עורי - once), and 'horses' hide' (Zech.) - twice. Actually, apart from the amended כשח^ו (Jo. 2:2) and perhaps שחור^ו (Lam. 4:8, section 3.4 below), the term refers exclusively to the appearance of human hair/complexion and human or animal skin. This range is quite limited - in MH שח^ו modifies 'clothes' and more. Barring accidents of text preservation, שח^ו does not seem too versatile for a primary colour term.

3.0.2 Productiveness: secondary/tertiary lexemes related to שח^ו are שחור^ו* (Song. 1:6, in fact the equivalent of שחורה in the previous verse) and שחורית (Qoh. 11:10), if the latter is not to be classified under 'colour allusions'. In MH the term is much more productive: שחורית, שחורגית, שחורחור, שחור (= 'coal') are a few of the new nominal creations, while the Hif. verb pattern is extensively used.³

3.0.3 Gradwohl states that שח^ו appears only in texts of the exilic and post-exilic periods.⁴ The question arises: is there a lexeme which fills the same slot in earlier biblical literature, and which complies with the criteria for primary colour terms (II, A)? חום, which is Fronzaroli's candidate for this post,⁵ occurs only in Gen. 30 and is limited in its application. √חשר and its derivatives seem to occupy a mid-way

position between the 'light/darkness' field and the colour field⁶ - the interpretation of חָשֵׁךְ in Lam. 4:8 - depends, to a large extent, on the comparison to שָׁחֹר. Even √קָדַר derived terms, which cover an area of distribution wider than √שָׁחַר,⁷ are not specific enough: קָדַר כְּאֵהֶלִי and שָׁחֹרָה אֲנִי (Song. 1:5) support each other's colour specification, but the dominant factor is the explicit שָׁחֹרָה. Therefore all three terms - חֹם, the verb √חָשַׁךְ⁸ and the verb √קָדַר (and their derivatives) are assigned 'secondary', 'tertiary' or 'indirect' status in the hierarchy of the שָׁחֹר sector.

3.0.4 Etymologically שָׁחַר seems to be fairly opaque, which is another indication of its primariness. Gradwohl points out that שיחורא, שיחור means 'coal' in Aramaic and in Syriac.⁹ Therefore, he concludes, the basic meaning of שָׁחַר is derived from שָׁחֹר - 'coal' (discussed below, 3.4) and denotes the 'colour of coal'. He also maintains that √שָׁחַר in Hebrew is a loan from Aramaic, although the 'colour' signification as such is original to Hebrew.¹⁰ This hypothesis, however, is by no means certain. שָׁחַר, as the Versions show, is far from denoting 'coal-black' exclusively: Gradwohl himself lists the evidence of the LXX, which has 'soot' for שָׁחֹר (Lam. 4:8), although the V has 'coal'.¹¹ The Targum has שיחורא for שָׁחֹר, but usually אֹכֶם for שָׁחַר, although √שָׁחַר does feature in Aramaic and - according to Gradwohl - might have entered Hebrew through that language.¹² On the other hand, it is conceivable that שָׁחֹר is a derivative of שָׁחַר and not vice versa, like אֶדֶם from אָדָם, לָבֵן (MH) from לבן. Alternately, although שָׁחֹר - which is a *hapax legomenon* in the OT - is possibly a loan word here, שָׁחַר is common to the stock of both Hebrew and Aramaic. שיחורא in Aramaic, Syriac and Mandaic could constitute a secondary development (from verbal √שָׁחַר) in those languages. Finally, an alternative basic meaning which is much more general in scope, and therefore much more suitable for שָׁחַר as a blanket term, is proposed by Tur-Sinai. According to him both √שָׁחַר and √קָדַר basically signify 'to burn', and the colour term שָׁחַר primarily refers to the colour of burnt objects; any other interpretation would make the syntagm שָׁחַר מַעֲלִי (Job 30:30, section 3.5 below) impossible to explain grammatically.¹³ This wider definition entails references to a range

of colours from 'ash-grey' to 'black' proper. As such, its scope is wider than that of 'black', or שָׁחֹר in Modern Hebrew, where חוּם and אֶפֶר cover sections that in OT Hebrew are inclusive to the שָׁחֹר scope. Indeed, the usage of שְׁחִיחֻת (Song. 1:6) as a stylistic variant of שְׁחִיחָה (1:5), together with the extra-linguistic reference of both שְׁחִיחָה and שְׁחִיחֻת in this context (3.3 below), fits in with Tur-Sinai's analysis.

3.0.5 Psychologically speaking, 'black' is a specification of the concept of 'dark' or 'darkness'.¹⁴ Has this process of differentiation of psycho-physical phenomena left any recognizable traces in the language of extant OT texts? One of the clues is the usage of חֹשֶׁךְ and שָׁחֹר derived lexemes in parallel formations, viz. as approximate literary equals. So is the case in Lam. 4:8 - חֹשֶׁךְ מְשַׁחֵר ¹⁵ and, if we accept the amended vocalization, in Jo. 2:2 - where חֹשֶׁךְ, אֶפֶלָה [and עֲנֹן וְעִרְפָּל] have references similar to that of the conjectured שָׁחֹר. The line of development 'dark' → 'black' is further illustrated by √קדר-derived terms and usages (classified as subordinate and indirect terms) or by the lexeme עוֹרֵב (from √ערב = 'dark').¹⁶

3.1 שָׁחֹר as modifier of 'hair'.

3.1.1 Lev. 13:31, 37 שָׁחֹר שְׂעֵר שָׁחֹר

שָׂעֵר שָׁחֹר is a sign of health, in contrast to שְׂעֵר צָהָב (vv. 30, 32, 36) which is a symptom of hair disease.¹⁷ As in the case of other שָׁחֹר occurrences, there is no reason to restrict the reference to 'black' only: a 'dark to black' range is much more suitable. The opposition שָׁחֹר/צָהָב basically signifies a 'light-coloured' = 'sick' vs. 'dark coloured' = 'well' contrast. The same semantic range ('dark' → 'black') is reflected, for instance, in the usage of the Aramaic cognate אוּכְס and verbal אֲכַס constructions.¹⁸

3.1.2 Song. 5:11 שְׁחִיחֻת כְּעוֹרֵב

On the other hand, שְׁחִיחֻת כְּעוֹרֵב is much more specific: the designation is defined as 'black' by עוֹרֵב. The latter is derived from a root meaning 'to be dark'¹⁹ which, as such, contains an indirect colour reference. The description of the beloved's head focuses upon the אָדָם (צוּח) ('complexion') (v. 10)// שְׁחִיחֻת ('hair strands') contrast.²⁰ Therefore, there is no reason to delete שְׁחִיחֻת כְּעוֹרֵב from this verse.²¹ כְּעוֹרֵב ²² at the beginning of the verse, should be understood as a

reference to the shine or gleam of the beloved's hair rather than as a chromaticity reference.²³

3.2 Zech. 6:2, 6 טוֹסִים שְׁחֹרִים

The colour opposition here is to אֲדָמִים, לְבָנִים, (and בְּרָדִים), all designating the colour of horses. The 'original' colours of the horses in Zech. 1 and 6 are extensively discussed by Fronzaroli.²⁴

3.3 Song. 1:5

שְׁחֹרָה אֲנִי וְנָאוֹה

(אל תראוני שאני שְׁחֹרָה שְׁשֹׁזַפְתִּנִּי הַשֶּׁמֶשׁ v. 6)

The insistence that שְׁחֹרָה - of complexion tone - is beautiful stands in sharp contrast to the conventional idea of beauty - אֲדָם, צֹה, *וְ, - elaborated upon in Song. 5:10f. and Lam. 4:7f. Perhaps this should be understood as a juxtaposition of urban beauty ideals vs. country ideals and realities. Be that as it may, it would be difficult to translate שְׁחֹרָה here as 'black', especially since שְׁחֹרָה (in the next verse) functions as an explanatory equivalent to the former.²⁵ The employment of שְׁחֹרָה typifies the fact that to equate שָׁחַר with 'black', without an analysis of each particular context, is far from accurate. Here the reference is specified: שְׁחֹרָה, שְׁחֹרָה refer to the colour of sunburnt skin, that is, 'brown' in our mode of speech.

3.4 Lam. 4:8 חֶשֶׁךְ מִשְׁחֹר תֹּאֲרֶם²⁶

According to the ancient Versions שְׁחֹר is either 'soot' (so the LXX), 'coal' (V), or 'blackness' (T).

Gradwohl sees שְׁחֹר = 'coal',²⁷ as the generative lexeme from which שָׁחַר is derived, and hence defines שְׁחֹר as 'coal-black'.²⁸ Against this hypothesis a few factors might be mentioned. The diversity of the Targums points to a far from certain understanding of שְׁחֹר. Unless we assume a loss of the original meaning, caused by the existence of the more frequent שָׁחַר whose denotation is not 'coal-black' only, we must accept that שְׁחֹר is an overloaded lexical item. While Aramaic (like Syriac) does have שִׁחֹרָא = 'coal', this is not used in the Targum here. Rather, the term אוֹכְמָתָא = 'blackness' is employed.

Finally, חֶשֶׁךְ seems too weak to denote 'blackness' that is 'blacker than black'. These considerations, in addition to those noted in 3.0.4 above (pp. 96f.), seem to me much more

weighty than those of Gradwohl. Tur-Sinai's proposal to define שחור as the 'colour of burnt things' → 'dark' → 'black' makes sense.²⁹ Consequently, שחור would refer to 'blackness' or - in this instance - to the more general 'darkness'.

3.5 שחור Qal

Job 30:30 עורי שחור מעלי ועצמי חרה מני חרב

Similarly, an interpretation of שחור = 'was burnt' fits both the word context (חרה מני חרב) and the extra-linguistic reference much better than 'became black'. This is reflected in the Aramaic Targum and in the LXX. The former uses שחם, which means 'to be hot', 'dark' and 'black' in the Targums, in Talmudic Aramaic, and in MH.³⁰ The latter has *eskōtotaí*, which is also used to translate חשך in Lam. 4:8.

3.6 Summary

שחור in Biblical Hebrew signifies 'black' (3.1.2, 3.2, and שחור - 'blackness' - 3.4), but also denotes the less specific colour quality of 'dark' (especially when describing complexion and skin colour, 3.3, 3.5; or hair colour, 3.1.1). This is precisely the range of reference that should be expected in the absence of terms referring to 'grey',³¹ and/or 'brown'. As for its basic meaning, one should remember Berlin-Kay's empirically proven conclusion: "... terms for 'black' and 'white' lack known derivation".³²

B.4 יֵרֶק and זֵרוֹק

Job 39:8. זֵתוֹרִי¹ הָרִים מְרִיעָהוּ. וְאַחַר כָּל יֵרוֹק יִדְרֹשׁ.

4.0 Although זֵרוֹק as such appears only in this verse, its inclusion within the primary category is supported by the existence of related lexemes on other levels of the field.

4.1 The secondary formation יֵרֶקֶק appears three times - twice in Lev. (13:49 and 14:37, in descriptions of cloth/leather and building material 'diseases'; and in opposition to אֲדָמָם) and once in Ps. (68:14, in the syntagm חֲרוֹץ (יֵרֶקֶק חֲרוֹץ)). Even if the occurrences in Lev. may be considered relatively late,² this is not easily done in the case of Ps. 68. The latter contains many points of contiguity with Ugaritic-Canaanite poetry;³ hence, in substance it should be dated as pre-exilic.⁴ In addition, the Ugaritic and Akkadian equivalents of יֵרֶקֶק חֲרוֹץ - *yrq. hrs*⁵ and *huzāsu ar-qu*⁶ respectively - have the basic form, not the derived duplicated one (as in Hebrew). The basic sequence √יֵרֶק, or cognates thereof, function as colour terms in many Semitic languages, while their range of reference encompasses an area which stretches from 'pale silvery' to 'green' and 'yellow'.⁷ Therefore, Fronzaroli's suggestion that יֵרֶקֶק had existed in the language - after being formed by analogy to אֲדָמָם - before יֵרוֹק filled the primary slot superseding this section⁸ seems to me far-fetched. Rather, I would assume that the fact that זֵרוֹק is a *hapax* can be attributed to accident. As Albeck says, although זֵרוֹקָה, זֵרוֹקָה and הוֹרִיק (Hif.) look like new MH creations they probably belong to the stratum of ancient Hebrew.⁹

4.2 The availability of other √יֵרֶק derived terms - זֵרֶקוֹר, (1. 'mildew', 2. 'paleness' of face), the river name זֵרֶקוֹן,¹⁰ and perhaps the place name יֵרֶקֶם¹¹ - points to the primariness of some √יֵרֶק-related lexeme at the head of the 'pale, yellow to green' sector. The examination of the terms יֵרֶק and יֵרֶקֶק, which unlike זֵרוֹק appear in texts from the pre-exilic period onwards, is of considerable importance for our problem.

Gradwohl summarizes the list of יֵרֶק occurrences by saying that the lexeme means 'every green plant that grows quickly'. The impression is that he interprets it simply as 'green plants'.¹² However, he does not comment explicitly upon the

fact that in the majority of the cases (6 times) **יִרְקָה/יִרְקָה** appear as the first component of a syntagm, be it **יִרְקָה עֵשֶׂב** (Gen. 1:30, 9:3), **יִרְקָה הַשְּׂדֵה** (Num. 22:4), or **יִרְקָה/יִרְקָה דָּשָׁא** (2 Ki. 19:26 = Isa. 37:27;¹³ Ps. 37:2). In the two remaining passages - Ex. 10:15 and Isa. 15:6 - **יִרְקָה** appears on its own, but the notion of 'plant' is supplied by the context (**עֵשֶׂב הַשְּׂדֵה** in the former) and the parallelism (**דָּשָׁא, חֲצִיר** in the latter). Logically (if not syntactically) the nucleus of the syntagm in all cases but Num. 22:4 is not **יִרְקָה**, which is the first component, but **עֵשֶׂב** or **דָּשָׁא**, while **יִרְקָה** functions as an attributive of qualifier.¹⁴ Thus **יִרְקָה עֵשֶׂב** can be translated as if it were a nominal phrase containing an adjectival element + a nominal form.¹⁵ **יִרְקָה**, then, denotes a colour quality. Historically and etymologically it might have denoted '(fresh) plants'. Nevertheless, in our text this reference is preserved clearly only in Num. 22:4 - **יִרְקָה הַשְּׂדֵה** - which is the equivalent of **עֵשֶׂב הַשְּׂדֵה** in other passages (Gen. 2:5; Ex. 9:22; Jer. 12:14; and more). As for Ex. 10:15 and Isa. 15:6, there **יִרְקָה** conveys the colour attribute, while the notion of 'growing things' is supplied by other words within the same contexts.

To summarize: although **יִרְקָה**, from the pre-exilic period (stage 2) onwards, denotes the colour qualities of natural growth, it is one step removed from its probable original meaning. In that sense it demonstrates a semantic shift of specialization, or narrowing.¹⁶ This might explain, for instance, the consistency which is demonstrated by the Aramaic Targums for the translation of **יִרְקָה** = **יִרְקָא, יִרְוֹקָא** in each and every case, while the similar term **יִרְקָא** is reserved for the translation of **יִרְקָה**. The latter can enter different syntagmatic relations - **יִרְקָה (ה) גֹּן** (1 Ki. 21:2; Dt. 11:10) or **יִרְקָה אֲרוֹחַת** (Prov. 15:17) - and is then understood as referring to 'herbs' or 'vegetables'. Hence, a 'pure' colour definition for **יִרְקָה** seems to be valid.

4.3 As for **יִרְוֹקָה** (Job 39:8), the construction of this colour term from the basic **יִרְקָה**, possibly by analogy to **אֲדָמָה**, is self-explanatory. Even in its context - that of 'food for the wild ass' - there is no necessity to define it as 'green things' (= **יִרְקָה**)¹⁸ or 'green plants'.¹⁹ If the LXX and V translate as they sometimes translate **יִרְקָה** - which Gradwohl points out²⁰ - they

do so because both lexemes refer to the same colour quality, while the employment of *זֵרוֹק* in connection with 'natural colour' (of growth) only may very well be arbitrary (see above). The existence, on various levels, of derived terms - one of which (*יִרְקָה*) not necessarily a reference to 'natural colour' - and of numerous cognates militate for the acceptance of *יִרְקָה* as a basic colour lexeme in pre-exilic literature, to be later supplanted by *זֵרוֹק*.

4.4 The approximate extra-linguistic colour reference of *יִרְקָה* and *זֵרוֹק* is not easy to determine. The cognates²¹ supply a wide range: from 'pale', 'silvery' to 'yellow', 'gold', and 'green'. The area covered by the Hebrew term and supported by the evidence of *זֵרְקוֹן* and *יִרְקָה חֲרוּץ* could be chromatically defined as 'tan', 'yellowish green', 'green', 'greenish' - not a highly saturated or strong chromatic entity. Indeed, this further supports the contention that *יִרְקָה* is used loosely: the 'green' it signifies includes areas later ascribed mostly to *צָהָב* = 'yellow', 'pale'. In essence, this state of affairs is in accordance with the Berlin-Kay evolutionary hypothesis. The latter have shown that after terms for 'white', 'black', and 'red' are established in a given language, the next lexeme to appear is one signifying 'pale to green' or 'pale to yellow'.²² Pines summarizes the matter neatly by saying that the name for the 'green' colour related to the name for plants originally referred to all chromatic qualities which can be observed within the world of vegetation.²³

B.5 צָהָב

Lev. 13:30, 32, 36 שֶׁנֶר צָהָב

5.1 If צָהָב is here accepted as a primary term (of sorts), it is for the following reasons:

a. Morphologically, it is built on the model of the other chromatic value carriers such as אָדָם, שָׁחֹר, יָרֹקָה.

b. It is monolexemic.¹

c. Its signification is not included in that of any other colour term of the same context and of the same chronological period.

d. The related Hof. part. מַצָּחָב (Ezr. 8:27) and its explanation - חֲמִיּוּדָה כְּזָהָב - are witness to the growing status, albeit on a modest scale, of the lexeme during the exilic period (stage 3), if not before that, depending on the chronological placing of the P literature (Lev. 13).

e. In MH the term is narrowed further. It is applied as modifier to lexemes other than 'שֶׁנֶר',² and evolves into a full-fledged freely-used term whose reference is not open to various interpretations. Therefore, we must admit that the process of development which we first witness in Lev. 13 (and in Ezr. 8:27) takes place largely outside the OT.

5.2 Gradwohl bases his definition of the reference of the term - 'reddish yellow' - on etymological and semantic links between Hebrew צָהָב and זָהָב, Arabic زَهَابٌ and زَهَابٌ.³ In his review of Gradwohl's book Blau agrees that both root sequences exist in Arabic, but adds that a $\underline{d} > \underline{z}$ shift never occurs in that language. Rather, he argues, it seems that the two roots are historically unrelated, and that because of their similarity in form they became similar in reference too.⁴

5.3 When discussing the Versions for צָהָב in Lev. 13 Gradwohl compares the Aramaic Onkelos translation (סומק) to the renderings of LXX and V and concludes that while the Aramaic understands צָהָב as 'red' (Jastrow: '[dark] red'⁵), the other two tend to translate into 'yellow', 'gleaming yellow', or 'yellowish-red'.⁶ He does not refer to the fact that the evidence of Onkelos here is quite isolated, and that the other major Aramaic translations agree, in effect, with the versions of LXX and V. Thus,

Onkelos: סֶנֶר (שֶׁנֶר) סומק⁷

Pseudo-Jonathan: שער מצלהב כחילו דהב (30, 32) and
שער מצלהב (36)⁸

Neophyti I: שער מצלהב (30, 32), שערה מצלהבה (36)⁹

Syriac: שער שמשא¹⁰

Jastrow defines **צלהב** - which features both in MH and in the Aramaic Targums - as a *Pal'el* form of $\sqrt{\text{צהב}}$ and the meaning he assigns to it is 'reddden, glow, heat, gild', etc.¹¹ It looks as if this definition is unduly influenced by the סומק of the Onkelos translation. Moresheth's definition - "מוצהב, מבריק" (= 'yellowed, gleaming') - seems to be much more appropriate.¹² Furthermore Moresheth, after examining various contexts in which **צלהב** forms appear, states that in essence **צלהב** probably means 'burn in fire', and therefore is close in meaning to **שלהב** and in reference to 'yellow' = **צהב**.¹³

I think that while **שלהב** is a *Shaf'el* form, **צלהב** is a case of morphosemantic contamination: could it be a combination of $\sqrt{\text{צהב}}$ and $\sqrt{\text{להב}}$ which refers both to chromatic qualities ('pale' to 'tan' or 'reddish', within the scope of our 'yellow'¹⁴) and the notion of 'brilliance'? Thus most of the Aramaic Targums supply us with the referents 'gleaming yellow', 'like gold' - not necessarily 'red gold' - that is, what we would call 'blond' hair. As Pines points out, this is the signification of the LXX and V terms as well.¹⁵

Coming back to biblical Hebrew, the existence of roots denoting 'gleam', 'brightness', or 'shine' which are identical to $\sqrt{\text{צהב}}$ in their first two consonants but different in their third consonant - II $\sqrt{\text{צהל}}$, $\sqrt{\text{צהר}}$ ¹⁶ - strengthens this interpretation, although the last two roots belong to the 'light, shine' field and not to the colour field.

B.6 SUMMARY

The primary, superordinate colour terms in biblical Hebrew are (according to a descending scale of distribution):

1. אָדָם - from the pre-exilic period onwards; in all types of OT literature; with the chromatic reference of 'brown-red-pink'
2. לָבָן - from the pre-exilic period onwards; again in various types of literature; denoting 'brightness, brilliance' and the neutral hue qualities of 'pale to white'.
3. שָׁחֹר - from the exilic or the pre-exilic period (depending on our dating of the literature underlying P : in juridical-cultic (Lev.), poetic (Song.), and prophetic (Zech.) texts; refers to 'black', but also pre-colour 'dark'.
4. יָרוֹק and יֶרֶק - יֶרֶק from the time of the monarchy, יָרוֹק only once (Job); here the occurrences supply us with an insight as to the process of the development of a basic term. Like their related cognates, the area covered is quite large: from 'pale' to 'yellowish' and 'green'.
5. צָהָב - only in P and a derived term in Ezr. (post-exilic). Reference - 'pale to (golden, or reddish) yellow, shiny'.

Hence, we conclude that until the 6th century B.C. Hebrew colour lexicon - as transmitted to us - exhibits features of stage III status according to Berlin-Kay ('white', 'black', 'red', and 'green'), while after the exile the evolutionary process reached stage IV of their classification (the addition of 'yellow'). Henceforth, the terms which are subordinate to the above-mentioned five must be analyzed and organized structurally.

C. SECONDARY TERMS IN THE OT

C.0 The criteria employed for determining the subordinate secondary status of colour terms are:

- a. Although the term is monolexemic, it differs from primary terms in its application and/or its specification; or
- b. It is morphologically based on a primary term.
- c. Its signification is included in that of the primary term which governs it.
- d. Its application is more restricted than that of a primary term.

The various lexemes which belong to this stratum of the field will be classified under the superordinate term of their sector. Thus, C.1 presents the discussion of אָדָם governed secondary terms (אֶדְמָה, מַאֲדָם, *אֶמֶץ, *שֵׁרֶק; for צָחָר see under לָבָן); C.2 is headed by לָבָן (*צָחָר, *צָח, and *צֹר); C.3 - by שָׁחֹר (חֹם, *שִׁחְחָר); C.4 - by יֶרוֹק (יֶרֶק); and C.5 - by צָהָב (מִצְהָב).

C.1 SECONDARY TERMS WITHIN THE אָדָם SECTOR

1.1 אֶדְמָה

1.1.1 אֶדְמָה occurs in the text twice (Lev. 13:49, 14:37) on its own and four times as a component of the compound לָבָן אֶדְמָה (Lev. 13:19, 24, 42, 43). אֶדְמָה *per se* is directly opposed to יֶרֶק and describes either cloth disease (13:49) or 'disease' of building materials (14:37). לָבָן אֶדְמָה, on the other hand, defines the appearance of skin diseases - be they שִׁאֵת (19), בְּהֵרָה (24), נֶגַע (42), or שִׁאֵת הַנֶּגַע (43) - and stands in opposition to לָבָן. Therefore the two terms are discussed separately: אֶדְמָה here, and לָבָן אֶדְמָה under Tertiary Terms.

1.1.2 Although אֶדְמָה is genetically transparent, its actual colour reference is far from clear. The ancient translations are of very little use for this problem; one gets the impression that no firm distinction was made between אָדָם and אֶדְמָה, יֶרוֹק and יֶרֶק.¹ The problem irked Jewish Commentators from early times: is אֶדְמָה a strong, bright 'red', or is it a pale, dull 'red'? In other words, the point of departure was: אֶדְמָה introduces a difference in the properties of brilliance and saturation (rather than of chromaticity), but which end of that scale does it refer to?

R. Aqiba states, אֶדְמָה ... כִּיּוֹן הַמְזוּג בָּמִים.² This means that for him the lexeme denotes a diluted, less saturated form

of אָדָם. R. Yishmael describes the same quality (הַפְתוֹר = 'the mixed colour') as כִּיּוֹן מְזוּג בְּשֵׁלֶג (for the לְבָן אֲדָמָה of the mixed colour = Lev. 13:24) or כְּדָם הַמְזוּג בַּחֵלֶב (for the נֶגַע).³ They both agree, then, that אֲדָמָה is a diminutive form whose exact designation can be conveyed by describing a mixture of a typical chromatic base (blood, wine) with diluting, de-saturating agents (water, snow, whitewash). However, we should bear in mind that both R. Aqiba and R. Yishmael are discussing לְבָן אֲדָמָה in the context of skin diseases and not אֲדָמָה on its own.⁴ The Talmud defines אֲדָמָה itself as a strong, sharp אָדָם:

אִיזָהוּ אֲדָמָה שְׂבִיחוֹת זֶה זֶה וְהָיָה עִמּוּקָה⁵

Following this definition, Rashi explains,⁶

אֲדָמָה, אִדּוֹם שְׂבִיחוֹת. יִרְקָה, יִרְקָה שְׂבִיחוֹת⁷

Qimhi concurs,⁸ while Ibn Ezra (for יִרְקָה) tends towards the diminutive interpretation but still mentions the existence of the opposite explanation.⁹

1.1.3 The argument should not be restricted to the question of the meaning of אֲדָמָה, יִרְקָה or שְׂחִיחָה* in any given context. Theoretically, it should be possible to reproduce a $p^{ec}al^{co}l/p^{ec}al^{co}l$ lexeme from any $pā^{co}l$ base of the same consonantal sequence if a grammatical-semantic productive rule covering the nature of the affiliation between the two is available (beyond the notion that the partially duplicated form is genetically secondary). Both denotations - the 'weaker' or, on the contrary, a 'stronger' reference - appear at first glance to be feasible. But when we consider similar morphological constructions from outside the colour field - which one of the solutions looks more suitable for our context and for the greatest number of contexts in which such lexemes (like יָפָה-פִּיָּה, עֵקֶל, אֶסְפָּר, etc.) occur? And are these two the only possible explanations?

A survey of opinions found in modern research seems to be in order at this point.

1.1.4 Modern biblical dictionaries are unanimous in accepting that אֲדָמָה is a diminutive form of אָדָם: so BDB,¹⁰ KB,¹¹ and GB.¹² The same view is presented by Moscati, who gives יִרְקָה and its Ethiopic parallel as an example for the diminutive function of the model.¹³ This indeed is the meaning of אֲדָמָה, יִרְקָה, and so on in Modern Hebrew.¹⁴ On the other

hand, Guillaumont understands the form as one conveying intensity,¹⁵ and so does Tur-Sinai.¹⁶ The latter view is in accordance with the Talmud but does not explain the apparent shift from 'intensive' to 'diminutive' in later literature. Gradwohl attempts to solve the problem by using **לִבְּן אֲדָמָה** as a link; according to him, the weakening force of **לִבְּן** exerted an influence on **אֲדָמָה** itself.¹⁷ Pines tends to agree with the latter.¹⁸ This approach, though, does not explain the process for **יִרְקֶק** or **שְׁחִירָה***. Claiming that these were interpreted as diminutive forms by analogy to **אֲדָמָה** - which was influenced by **לִבְּן אֲדָמָה** - seems improbable, especially since **אֲדָמָה** and **לִבְּן אֲדָמָה** are well differentiated both in the biblical text and in the Mishna as referring to separate - albeit similar - colour entities.

1.1.5 An interesting discussion of our problem was launched by the activity of the Committee for Colour Terms, the fruit of whose work appeared in **לְשׁוֹנֵנוּ** VI. Har-Zahav opened the debate.¹⁹ Citing the Mishna, medieval, and other sources he describes the $p^{ec}al^{c-}al$ pattern of colour terms as a diminutive model. He too interprets the compound **לִבְּן אֲדָמָה** as proof for the 'diminutive' signification. Other lexemes of the same pattern, such as **הַפֶּכֶךְ** (Prov. 21:8), **חִלְקִלְיוֹת** (Jer. 23:12), **עֵקֶלְלוֹת** (Jud. 5:6), and **יַפֶּה-פִּיָּה** (Jer. 46:20) are classified by him as 'intensive' forms.

The inconsistency of Har-Zahav's approach was, of course, immediately noticed. Hence, an answer was not late in coming. Zlotnik published his objections in the same volume of **לְשׁוֹנֵנוּ**,²⁰ viz., it is inconceivable that the Sif. contradicts R. Aqiba. Simply, the words of the Sages were not properly understood: no intensive or diminutive force can be attached to the pattern. Rather, a distributive force is meant. **אֲדָמָה** refers to 'red spots'; **יִרְקֶק** - to 'green spots', and **שְׁחִירָה** (Song. 1:5) to 'sun-tanned patches'. Similarly lexemes like **אֶסְפָּסוֹף**, **עֵקֶלְקֵל**, **נִמְנֵם**, **פַּתְלָחַל**, **הַפֶּכֶךְ** all represent the same 'distributive' concept.

If we accept Zlotnik's arguments, then we must assign the very same chromatic references which we attribute to the primary terms also to the secondary lexemes of the same series. This is generally acceptable for most occurrences, especially those of Lev. and of Song. (1:5 **שְׁחִירָה**, cf. 1:6 **שְׁחִירָה**). Less convincing

is the interpretation of *ירקרק חרוץ* (Ps. 68:14) according to this suggestion. In addition, the idea of 'speckles' and 'stains' in biblical literature is usually expressed otherwise - by using the $\bar{p}\bar{a}\bar{o}l$ pattern (**נָקוּד**, **עָקוּד**), although we have **חברבורות** for 'speckles/spots'. Finally, no support for this analysis can be found in cognate languages.²¹ This last point was taken up by Shalem.²² Shalem quotes the unique report of the Samaritan Targum about the twelve stones of the *סמקמק - חֲשֹׁן*, *סמק, סמוק* (first row), *ירקרק, ירוק, ירק* (third row), and so on - and concludes that these are graded in order of intensity from the weak to the strong. He applies the same principle to Hebrew: he sees *אדמדם* as a shortened form of *אָדָם אָדָם*, similar to duplicated superlative forms like *סביב סביב* and *מָאֵד מָאֵד*. In short, for him *אדמדם* is a stronger *אָדָם* - *ירקרק*, a brighter and deeper *ירוק*; ²³ that is, he defines *אָדָם* *ירוק* and so on as references to the bottom - or the middle - of this sector, while the morphologically secondary lexemes are understood as references to the maximally saturated foci of the same colour areas. This approach, again, is questionable both on morphological and historical grounds.

1.1.6 I would like to propose an alternative approach, one that would categorize the 'deep' (if not 'surface') semantic significance underlying the various terms exhibiting the partially duplicated pattern, be they colour-denoting lexemes or lexemes from other fields.

Let us ignore, for a moment, the property of chromaticity and instead try to define the difference between *אָדָם* and *אדמדם* in terms of brightness. Could *אדמדם* in the contexts in which it appears refer to bright *אָדָם*? Let us remember that *אָדָם* is a blanket term which refers to 'pink' and 'brown' as well as 'red': any term derived from it might denote a section included in it. On the other hand, the derived lexeme may be chiefly motivated by dimensions other than hue.²⁴ We even half-expect hue determiners to follow the basic $\bar{p}\bar{a}\bar{o}l$ pattern (cf. **אָמֶן**, **שָׁרֶק**²⁵), although the latter is by no means exclusive to colour terms. *אדמדם* = 'bright red' or 'glaring pink', a glistening and 'raw' appearance, describes skin diseases well, and this in a context where *אָדָם* itself does not feature. The same interpretation - not a change in hue, but rather in brightness/saturation -

makes sense in the case of **ירקק** both in Lev. and in Ps. 68, but not for **שחרחרת** in Song. 1:5 unless here too it is the sheen, not only the actual *chroma*, which is referred to.²⁶

If so, the expanded pattern represents a modification to one or some of the qualities which the base it is derived from signifies. In colour terms it is the 'brightness/gloss' or 'saturation' factor. In **עקלקל** this variable might be the distributive factor, in **פחלחל** and **יפה-פיה** - intensity. Even **אדום שבדומים**, **אדום שבירוקים**, **אדום שבירוקים** (1.1.3 above) might be explained as referring to these dimensions of purity and gloss of the colours described. This is possibly the reason why no firm distinction is made by the ancient Versions between the primary and the secondary terms. As for the modern interpretation and usage of **אדמדם**, **ירקק**, **שחרחר** as diminutive forms, these indeed might have been influenced by the inaccurate interpretation of M. Neg. 1:2 - which was understood to deal with **אדמדם**, while in fact it deals with **אדמדם לבן** - and not directly by the biblical **לבן אדמדם**.

1.2 **מֵאֲדָם** (Nah. 2:4), **מֵאֲדָמִים** (P - Ex. 25:5; 26:14; 35: 7, 23; 36:19; 39:34).²⁷ Commentators tend to agree that **מֵאֲדָם** (Pu. part.) means 'dyed red' or 'made red'.²⁸ If so, the lexeme ought to be considered a member of the secondary stratum: it denotes a state of being an **אֲדָם** of some sort. It modifies 'rams' skins' (**עֲרוֹת** - Ex.) and 'shield' (Nah.), the latter probably made of hide too.²⁹ Further, **מֵאֲדָם** is mostly understood as referring to a colour effect that is not a naturally reflected or refracted **אֲדָם**,³⁰ but a man-made pigment-derived quality. The identity of this colour reference, however, is not entirely clear.

The NEB and the translation in the English edition of Noth's commentary³¹ have 'tanned rams' skins'. This translation is (deliberately?) ambiguous. Does it constitute a reference to the colour ('tan', 'brownish-yellow') of processed and dyed skin which, in the absence of a more specific primary term, would fall (in biblical Hebrew) under the heading **אֲדָם**? Or else, 'tanned' may simply signify that the skins had now been processed, with no overt colour reference included. Indeed, the latter might be the case as far as **מֵאֲדָם** itself is concerned: the possibility that it is not a colour term (etymologically

speaking) should be considered.

In Arabic we find a root sequence 'adm which functions within the field of leather-processing: ^{أَدَمَ} 'tanner', ^{أَدَسَ} 'hide'.³² In the same language the dominant term for 'red' is not derived from 'adm, but from a different root (^{أَحْمَر} hmr). It is possible that the Arabic $\sqrt{\text{'adm}}$ had the same colour denotation as its Hebrew parallel. This signification, however, was somehow dropped, while the derived sense remained. By the same token, it is conceivable that a similar development occurred in biblical Hebrew. If so, ^{מָאֵדָם} signifies 'processed' (leather) with no specific colour reference apart from the indirect connotations of the usual colours of such skins.³³ In other words, it is possible that ^{מָאֵדָם}/^{מְאָדָם} preserve a root - perhaps also the ultimate origin of ^{אָדָם} - which at some point became distinct through polysemy and developed into a homonym of the parent sequence. Even so, the exact meaning of the less frequent homonym was probably forgotten already in biblical times, and it became synchronically equated with its more popular parallel. Finally, the various shades of ^{אָדָם} evoked in Nah. 2:4-5 ('scarlet'; the colours of fire and of blood) leave no choice but to accept a colour significance for ^{מָאֵדָם}, although a deliberate word play on 'tanned' + 'made/dyed' ^{אָדָם} cannot be ruled out entirely. The ancient Versions understood the lexeme ^{מְאָדָם} in Ex. as a colour term too. One is forced to conclude that despite its conjectured etymological history, ^{מָאֵדָם} carries some kind of specification of hue or brightness that is inclusive to ^{אָדָם}.

The question remains: Why should the skins be processed in this particular (although obscure for us) fashion? Gradwohl's answer is, so that they become waterproof.³⁴ Was this why the skins were apparently dyed? Haran argues that they had to be dyed in order to match the ^{עוֹרוֹת תַּחֲשִׁימִים} - "sea-cows" or "dolphins' skins"³⁵ - which are naturally of that colour, and which are mentioned together with the ^{עוֹרוֹת אֵילִם מְאָדָם} in all six instances in Ex.³⁶ This is borne out by the Aramaic Targum to ^{תִּישׁ סַטְרוֹנָא} (= 'scarlet')³⁷ and fits in with the general colour scheme of the tabernacle plan, which is organized around four main colour themes: 'white' (^{שֵׁשׁ}, ^{בָּד}); types of 'red' (^{תוֹלַעַת שָׁנִי}, ^{אֶרְגָּמָן}); 'blue purple' (^{תַּכְלֵת}); and the colour

appearance of זהב טהור - 'pure gold', gold being the most dominant of the metals required.

1.3 אָמֹץ* - Zech. 6:3, 7

1.3.1 Because אָמֹץ occurs only twice, within the same vision, and as a modifier of the same word (סוּסִים), something should be said about the secondary status it is assigned here. This, at least in part, depends on the basic lexical value that is attributed to the personal name אָמֹץ (Isa. 1:1, 2:1, and more), although this is irrelevant for the identification of the bearer of the name. Unlike the personal names אָמֹץ (i. Neh. 11:12; ii. 1 Ch. 6:31), אָמֹץ (2 Ki. 12:22, 14:1, etc.), and אָמֹץ (Am. 7:10, 12, 14), all clearly derived from I אָמֹץ = 'be strong, solid, hard',³⁸ there is a possibility that אָמֹץ is related to the colour term אָמֹץ*, which is etymologically different from I אָמֹץ. This possibility is suggested - with a greater or lesser degree of certainty - by Hare'ubeni,³⁹ Shalem,⁴⁰ and Maisler-Mazar,⁴¹ contra BDB and KB.^{3, 42} As the context of Zech. 6 suggests a colour reference for אָמֹץ, and as there are other personal names or place names with colour connotations in the OT (לָבָן, לְבָנִי, אָדָם, to name only a few), there is no reason to reject this explanation out of hand. If it is accepted, it supports the classification of אָמֹץ* as a secondary term; otherwise, the latter should be considered a tertiary term. There is no justification, however, for excluding אָמֹץ* itself from the colour field.⁴³

1.3.2 The horses of the fourth chariot are referred to as אָמֹץ בָּרָדִים in 6:3. Further on the סוּסִים אָדָם of v.2 are not mentioned; instead, בָּרָדִים are named as an independent colour group (v.6), separate from אָמֹץ (v.7). Therefore it is proposed in BH³ to omit בָּרָדִים from v.3 of the MT, as if it were a doublet of אָמֹץ.

Fronzaroli, on the other hand, assigns to the horses of both visions (1:1-17, 6:1-8) the following colour terms: בָּרָדִים, אָדָם, שָׁחִים, לְבָנִים - i.e., he views אָמֹץ as superfluous in 6:3, and as a corruption of אָדָם in 6:7.⁴⁴ Mitchell holds the same view for ch. 6,⁴⁵ but says that the same opinion does not necessarily apply to ch. 1.⁴⁶ Charles, whose analysis is quite similar to that of Fronzaroli, raises the matter of the exceptional nature of בָּרָדִים in this passage: the context in

which עקדים נקדים occurs elsewhere (Gen. 31:10, 12 - עקדים נקדים) points towards a reference to a 'spotted' or 'speckled' appearance, while all the other horses in ch. 6 and in ch. 1, be their colours what they may, are presented as unicoloured.⁴⁷

Charles argues that there is no need to reconcile the two passages to each other so that they are in perfect agreement, and that it is possible that the Greek Versions rendered שרקים (1:8) as if it read נקדים in order to harmonize the two visions, for there is no basis for such a rendering in the MT.⁴⁸

Furthermore, the element of unicolour is preserved in the vision in Rev. 6, which draws on Zech. 1 and 6.⁴⁹ Therefore, I think that perhaps it would be preferable to

a. maintain the MT of Zech. 1:8, discounting the evidence of the Versions;

b. omit נקדים, and not אמצים, from 6:3; and

c. assume an error which excluded אדמים from 6:6, with the subsequent attempt to restore the four-colour element by using both אמצים and its (mistaken) explanatory gloss נקדים.


1.3.3 Although the Aramaic T translates אמצים as 'ash-coloured' (קטמין),⁵⁰ most of the commentators who agree that אמצ* is a colour term that should not be omitted from this passage tend to view it as some type of אדום = 'red'. Of the traditional Jewish commentators, Ibn Janah⁵¹ and Qimhi⁵² discount the evidence of the Targum and draw an analogy between אמצ* and חמוץ (Isa. 63:1). Ibn Ezra tries to reconcile the non-colour interpretation with the 'colour' one by commenting (for 6:3), אמוצים מגזרת אמיץ והוא גוון תקיף ונראה למרחוק,

but adds (for 6:7),

⁵³ והאמוצים הם האדומים לבדם שהיו במרכבה הראשונה.

Unless his second comment is to be understood as a proposed (veiled) emendation, the two are clearly contradictory.

Among the moderns, both KB⁵⁴ and אוצר לשון המקרא⁵⁵ support the 'gleaming', 'piebald' (the former) or 'flashing' אדום = חמוץ (the latter) by an Arabic cognate root. Shalem too lists אמצ* under the blanket term אדום.⁵⁶ None of these three specifies what the status of אמצ* vis-à-vis אדום is. Nevertheless, this specification is quite necessary because of the occurrence of אדום within the same context as signifier for the colour of another group of horses (6:2). Guillaume attempts to determine

the relationship between אָדָם and אָמֶץ* by suggesting an Arabic parallel ()⁵⁷ which refers to 'reddish-white' dust colour.⁵⁸ I think that this definition of אָמֶץ* ('light reddish-brown') solves the problems of both sense and reference for our lexeme, although no great degree of certainty is possible because of its rarity.⁵⁹

1.4 שָׁרֶק - Zech. 1:8 - סוֹסִים אֲדָמִים שָׁרָקִים וְלִבְנִים

1.4.1 שָׁרֶק (Isa. 5:2; Jer. 2:21), שָׁרָקָה (Gen. 49:11), and שָׁרוּקִים (Isa. 16:8) refer to a 'type of vine' - this is clear from the word context in each case. The classification of this grape vine - a vine whose fruit and wine are red⁶⁰ - is largely dependent upon the etymologies and the cognates proposed for שָׁרֶק. On the other hand, the existence of these same terms, together with the river name שֶׁקֶל (Jud. 16:4), the place name מִשְׁרָקָה (Gen. 36:36; 1 Ch. 1:47), and the dubious form שָׁרִיקוֹת (Isa. 19:9)⁶¹ strengthens the position of שָׁרֶק* (though a *hapax*⁶²) as a secondary term. Cognates to the root have colour denotations to an area whose focus is 'red'; hence it makes sense to view שָׁרֶק* as the base for the series שָׁרָקָה, שָׁרֶק, etc.,⁶³ not *vice versa*. In addition, the distribution of the above mentioned lexemes across literary genres and chronological periods from early poetry (Gen. 49:11) through pre-exilic and exilic prophecy (Isa., Jer.) to post-exilic historiography (Ch.), together with the knowledge of the process of development שָׁרֶק = שָׁרָקָה went through in MH (see below, and in part III of this study), consolidate our position even further: it is probably but an accident that שָׁרֶק* itself is extant in Zech. 1:8 only.

1.4.2 שָׁרֶק modifies סוֹסִים, hence the problem of determining its colour denotation is linked to the question of the realism or lack of realism attributed to Zechariah's vision. The other factors that should be considered are the mutually exclusive existence of אֲדָמִים in the same vision; the etymological relation to שָׁרָקָה, שָׁרֶק - 'vine of a certain type of appearance'; and the evidence of the cognates. The ancient Versions (LXX and V) sidestep the issue by translating into 'many coloured' or 'speckled', as if the MT read בְּרִדִּים, thus trying to overcome both the problem of the reference of שָׁרֶק* and harmonizing the vision in ch. 1 to the one in ch. 6.⁶⁴ Such, interestingly

enough, is the interpretation of Ibn Janah,⁶⁵ Ibn Ezra⁶⁶ and Qimhi.⁶⁷ The Aramaic Targum has קוּחִין = 'faint-coloured' or 'grey',⁶⁸ but this is not accepted even by Rashi.⁶⁹ Modern scholars who deal with the lexeme draw an analogy between it and between Arabic \sqrt{srq} - 'be red', 'brown', or 'yellow' (for sunshine)⁷⁰ and its metathesis \sqrt{sqr} - 'light red', 'blond';⁷¹ Akk. *šarqu* - 'light-red blood';⁷² the various Aramaic formations from סָקֵר and סִיקְרָא;⁷³ and the MH סָרֵק, סָרֵק.⁷⁴ Although all concur that שָׂרֵק* refers to some kind of 'red', there is no agreement as to its approximate denotation. As Pines points out, it cannot mean 'bright red' in our context - this would be taken up by אָדָם (especially if no realistic properties are attached to the vision) - and therefore the analogies to סִיקְרָא = 'red paint' or to the Akkadian are not very helpful.⁷⁵ On the other hand, the Arabic رُحْبَاءُ = 'reddish-brown colour of horses' is much more suitable. Thus the definition presented in BDB, 'sorrel',⁷⁶ is preferable to that of KB, 'bright red'.⁷⁷ Alternately we can follow the etymological thread extended from Arabic (and Ethiopic⁷⁸) - where \sqrt{srq} defines the colour of the rising sun - to סָרֵקוֹן וְכִרְכְּמוֹ of MH, where apparently the references of סָרֵק and כִּרְכֵם (= 'crocus, saffron') are perceived as so close that they come to be employed as a hendiadys denoting the action of painting in general.⁷⁹ If we take these data into consideration we should accept Ben Yehuda's definition of 'yellow-red'.⁸⁰ Finally, as Pines states, the vines denoted by שָׂרֵק, שִׁרְקָה, are not necessarily of a 'red' colour - this identification stems from that of שָׂרֵק*, not the other way round.⁸¹ The fruit of the vines thus named can actually be yellow or tawny, not red, even though they are called שָׂרֵק.

This seems well within the framework of our terminology: it would still come under the heading אָדָם in most strata of OT nomenclature.

C.2 SECONDARY TERMS WITHIN THE לָבָן SECTOR

2.1 רָכְבִּי אֲתָנוֹת צֹחֹר* Jud. 5:10 -

(Ezek. 27:18 - יִין חֲלָבוֹן וְצֹמֶר צֹחֹר

צֹחֹר - I. Gen. 23:8, 25:9. II. Gen. 46:10,¹ Ex. 6:15.

III.? 1 Ch. 4:7 - וְצֹחֹר Q, יִצְחָר K).

2.1.1 צֹחֹר*, although a *hapax*, is classified as a secondary term because of the existence of the proper name צֹחֹר already in pre-exilic times, and the place name² צֹחֹר in Ezek. 27:18.

Moreover, even when we accept - *contra* the traditional Jewish interpretation - that צֹחֹר³ and חֲלָבוֹן⁴ are both toponyms, the colour connotations of the two lexemes should not be ignored.⁵ חֲלָבוֹן is phonetically associated with חֶלֶב = 'milk', and through this with the colour of milk. צֹמֶר is conventionally used for the description of colour entities which are defined as לָבָן, hence the translation of T, וְעֹמֶר מִלֵּיל כְּבִידָא = 'fine, clean wool'.⁶ There is no need to assume (with Gradwohl) that the T rendered צֹחֹר as if it read צֹחֹר*, that is, that the translation is derived exclusively from the meaning of צֹחֹר* in Jud. 5:10.⁷ On the contrary: צֹחֹר in Jud. 5:10 is rendered דַּחְשִׁיקוֹ בְּכָל מִינֵי צִיּוּרִין. דַּחְשִׁיקוֹ is used in the T also to render רֶקֶם:⁸ in this case, it seems, the translator was aware of some kind of colour notion, but not of the approximate denotation of this notion. The translation is therefore a paraphrase which is hardly relevant to the reference of the lexeme צֹחֹר* or the related צֹחֹר (Ezek. 27:18).

2.1.2 Most scholars explain צֹחֹר* mainly from its cognates in Arabic and Syriac as referring to various 'white reddish' and 'brownish' shades. Thus in the BDB the term is defined as 'reddish-grey', 'tawny',⁹ and similarly by Moore¹⁰ and by Burney.¹¹ KB has 'yellowish red'.¹² Consequently, Gradwohl describes the reference as 'reddish-grey' and includes it in the section of his work superseded by "rot".¹³ On the other hand, there is a very strong Jewish tradition that explains צֹחֹר* as לָבָן. In the Tal. Bab. Erub. 54b there is a Midrash in which our verse is utilized for praising both students of the Torah and the Torah itself - רָכְבִּי אֲתָנוֹת אֱלֹהֵי חֲכָמִים - שְׁמַחְכֵּין מְעִיר לְעִיר וּמְדִינָה לְמִדִּינָה לְלִמּוּד בַּהּ תּוֹרָה. צֹחֹרֹת שְׁעוּשִׁים אוֹתָהּ כְּצֹהֲרִים.

This Midrash may have been inspired by the alliterative connection, or the similarity/identity in pronunciation (in post-biblical times) of $\sqrt{\text{צֹהַר}}$ and $\sqrt{\text{צָהָר}}$; nevertheless, it may also have preserved a genuine tradition of the meaning of צָהָר^* which is close to that of $\sqrt{\text{צָהָר}}$, that is, refers to a quality of light and brightness rather than to that of chromaticity. Similarly, we find the lexeme sōhār = 'white' in Mandaic.¹⁴

The denotation of צָהָר^* is even more explicit in Tal. Bab. Ber. 31b. The text of most printed editions has the antonymous pairs $\text{גִּזְגִּיז} / \text{אֶרֶץ} / \text{אֶלֶם} / \text{קֶטֶף} / \text{גִּיחֹר} / \text{צָחֹר}$. The last pair probably presents the contrast of $\text{לָבָן} / \text{אֶדָם}$, 'white' complexioned vs. 'red' complexioned.¹⁵ However, the Munich Ms. and the Aruch Completum¹⁶ have here צָחֹר ולא אֶדָם, a $\text{צָחֹר} / \text{לָבָן}$ contrast which is previously stated as such ($\text{שְׁחֹרִים} - \text{יֹלֶדֶת לְבָנִים}$) in R. Aqiba's words quoted on the same page. Later Hebrew tradition, as represented by Qimḥi, Rashi,¹⁷ and Ibn Janah,¹⁸ has לָבָן both for Jud. 5:10 and for Ezek. 27:18. On the surface it seems that all these are influenced by the Aramaic Targum to Ezek. 27:18 (and by the Talmud), which they apply to the obscure *hapax* in Jud. 5:10. The same interpretation is adhered to by Ben Yehuda,¹⁹ Kaufmann,²⁰ and Gesenius.²¹ Pines, after listing the cognate evidence, tries to harmonize the two approaches and suggests that צָחֹר^* refers to 'white', or 'white' tending to 'pink'.²²

2.1.3 The common denominator of all the etymological links proposed for צָחֹר^* is the reference to a strong element of brightness, together with a weak quality of hue. These attributes are supported by the apparent closeness of $\sqrt{\text{צָהָר}}$ to $\sqrt{\text{צֹהַר}}$ and $\sqrt{\text{צָהָר}}$, both referring to the 'light', although not necessarily to the chromaticity aspect. This also explains how various forms of $\sqrt{\text{sh̄r}}$ cover shades that range from 'tawny' to 'yellow' to 'reddish-grey' in Arabic; in Syriac - 'red' (of face); in Mandaic - 'white'; and in Hebrew - 'white', or rather 'pale-coloured'. What is common to all these derived meanings is the notion of luminosity or brightness which is specialized or narrowed in each of the above-mentioned languages according to the needs of its own lexical structure. The meaning attributed to $\sqrt{\text{sh̄r}}$ in the Ugaritic lexeme $\text{sh̄rr}(t)$ - 'burn/shine (of the sun)',²³ - fits in with this reconstructed history of the root reference as well. The immediate implications of this

approach for our problem are:

a. The significance of etymological evidence must be restricted - if possible - to the notion underlying all or most cognates, that is, to their common denominator.

b. There is no conceivable reason to reject the Jewish tradition which equates צָהָר* and לָבָן; צָהָר* is therefore understood as a designation for 'light-coloured' or 'bright', which is an internal Hebrew development from the basic Semitic signification of the root. This development occurred quite early. It is supported by the distribution of the derived personal name צָהָר and strengthened by the fact that צָהָרֹת appears within the ancient poetic text of the Song of Deborah. On the other hand, the term fell out of use later; significantly, it is chiefly preserved in OT literature in derived names (צָהָר, צָהָרֹת), while in MH it features mainly in texts which relate to Jud. 5:10. This eventual elision - the reason for which cannot be determined unless we attribute it to the growing status of לָבָן itself - is what caused the confusion as to the reference of the term already in the ancient Versions.

2.2 צָהָר, צָהָרֹת and צָהָרֹת*

Song. 5:10 - דֹּרֵי צָהָר וְאֶדְוֶם

Lam. 4:7 - מִשְׁלַג צָהָר מִחֻלָּב ²⁴ זָכַר נִזְיָרִיָּה

(Ps. 73:7 - יֵצֵא מִחֻלָּב עֵינָיו - BH³ has an emendation to יֵצֵא מִחֻלָּב עֵינָיו on the basis of Lam. 4:7, and in order to restore some sense to the MT).

2.2.1 Gradwohl does not discuss צָהָר and זָכַר because he considers them members of the 'light/darkness', not the 'colour', field.²⁵ Fronzaroli points out that the exclusion is unjustified, for it clearly depends on the structure of the colour field in Gradwohl's own language, which is not necessarily identical with that of OT Hebrew.²⁶ The word contexts of Song. 5:10, Lam. 4:7 (and perhaps Ps. 73:7) - the mentioning of אֶדְוֶם and אֶדְוֶם; the comparison based on the אֶדְוֶם/לָבָן contrast; the specification of the colour referred to by מִשְׁלַג and מִחֻלָּב, which are used elsewhere for defining לָבָן itself - all these require the inclusion of צָהָר, צָהָרֹת and צָהָרֹת* within the semantic sector of which לָבָן is the superordinate term.²⁷ Fronzaroli goes on to say that it is possible that צָהָר and צָהָרֹת* are specifications of לָבָן; although this is impossible to prove on internal Hebrew

evidence, it is to be considered probable from the evidence of supporting terms in other languages.²⁸ Theoretically this might be the case. However, because of the rarity of their occurrence and their association with שָׁלֵג (Isa. 1:18; Ps. 51:9) and חֶלֶב (Gen. 49:12), nothing can be said of them beyond a general statement about their apparent synonymy with לָבָן within the context of Lam. 4:7 and Ps. 73:7 (if the emendation is to be accepted). For Song. 5:10, צֹחַ וְאֵדוּם, cf. B.1.6 above (pp. 71-75).

2.2.2 The secondary status assigned here to the nominal צֹחַ and the verb צָחַח is dependent upon the above mentioned comparative structures (Lam. 4:7) and not on the number of occurrences. As for זָךְ* (< זָכַר), it usually means 'pure', 'unadulterated',²⁹ - thus in Ex. 27:20, Lev. 24:2 (oil), Ex. 30:34, and Lev. 24:7 (לְבוֹנָה), all attributed to P or H. A further development of the term, peculiar to wisdom literature, makes it signify a moral state,³⁰ whereby it refers to qualities of 'purity' and 'righteousness',³¹ - so the relevant instances in Prov. and in Job, and the verbal lexemes of the same root which appear in Job only. Our instance (Lam. 4:7) is the only one in which the word context and the literary context dictate the understanding of זָכַח as a colour term of sorts (// צָחַח and the association with 'snow'). Here we are probably concerned with a shift of meaning that can be understood only if both stages in the development of the lexeme are taken into account. לָבָן serves as a symbol for purity, both concrete ('white' clothes - Qoh. 9:8) and moral-spiritual (Isa. 1:18; Ps. 51:9; Dan. 11:35, 12:10). Thus the use of זָךְ* as a colour term equivalent to לָבָן makes sense both poetically and linguistically. Strictly speaking, though, because זָכַח - within such a word context - is a *hapax*, it is not a secondary term, and is discussed here merely for reasons of convenience. Finally, Fronzaroli says that זָךְ* probably specifies 'transparence' (cf. the nominal זְכוּרִית), which is one of the aspects of light/low chroma phenomena indicated by לָבָן.³² This may be so, but cannot be proven for מִשְׁלֵג...זָכַח, where the crux of the reference seems to be the exaggerated poetic reference to the colour of the complexion of Jerusalemite youths, that is, the 'dazzling brightness', not the 'transparence' of their countenance.

2.2.3 The basic denotation of $\sqrt{\text{זָכַר}}$ - related lexemes is 'clean→pure'. The same area of reference is attributed to the direct cognates in Akk., Aram., and Arabic.³³ This indeed is the meaning carried by most occurrences in the OT, be they nominal or verbal. The unmistakable 'brilliant/white' reference of Lam. 4:7, though isolated, exhibits a transference through contiguity of senses; thus 'clean' → 'unblemished' → 'pure' → 'luminous' → 'dazzling/white'. In other words, the characteristic attribute referred to by זָכַר here is not chroma, but brilliance. This is precisely the quality which makes לָבָן 'white' seem the purest of colours, a symbol of cleanliness and purity on the concrete as well as on the spiritual level.

2.2.4 Similarly, a common denominator for all $\sqrt{\text{צָחָה}}$ related lexemes - צָחָה (Lam. 4:7), צָח (Isa. 18:4; Jer. 4:11; Song. 5:10 and, by transference, Isa. 32:4 - לְדֹרֵי צָחוֹת); צָחִיח * (Ezek. 24:7, 8; 26:4, 14; Neh. 4:7 Q), צָחִיחָה (Ps. 68:7), צָחִצְחָה * (Isa. 58:11) - is the reference to a quality of light, shine, or dazzle and, by transference 'clarity'³⁴ (the principal attribute of daylight) or 'heat/burn'.³⁵ Pines, following the witness of various cognates, consequently doubts the ' לָבָן ' meaning of צָח (Lam. 4:7, Song. 5:10) and restricts the reference to 'bright, glowing'.³⁶ However, as we have shown, לָבָן does not serve as an exclusive marker of total lack of chromaticity: it denotes any light colour, for the principal quality of what we call ' לָבָן /white' is maximum illumination. Therefore, צָח must be considered a synonym of sorts to לָבָן , especially since הִלָּב may serve elsewhere (Gen. 49:12) to emphasize the attribute of 'dazzle', 'brightness', even though there it appears in a syntagm with לָבָן itself.

C.3 SECONDARY TERMS WITHIN THE שָׁחַר SECTOR

3.1 שְׁחִירָה*

Song. 1:5 - ... כִּאֲהָלִי קִדְרָה ...

1:6 - אֵל תְּרֹאוֹנִי שֶׁאֲנִי שְׁחִירָה שֶׁזִּפְתָּנִי הַשֶּׁמֶשׁ

As שְׁחִירָה is morphologically secondary, we would expect it to modify the semantic range of its superordinate lexeme somewhat (cf. אֲדָמָה). This is the view adopted by Gradwohl¹ and Pines² on the basis of the ancient Versions.

However, שָׁחַר in v. 5 seems to be semantically equivalent to the שְׁחִירָה of the next verse. If we disregard the difference in form, there is no demarcation line between the reference of the two terms. The T translates שְׁחִירָה by קִדְרִיתָא and has the same קִדְרָה sequence in its free rendering of v. 5 (אֲתִקְדֵּר). As the difference between the two lexemes here is that of class-verb vs. nominal form - no semantic conclusion can be drawn from it. The Syriac has אֲרִכְמָא,³ elsewhere used for translating שְׁחִירָה - lexemes as well as the Hebrew קִדְרָה.⁴ Hence, no great use can be made of the Aramaic Targums to our passage.

On the other hand, although שָׁחַר (ו) itself is not utilized for denoting the colour of 'sunburnt skin' elsewhere in the OT, two of its derived forms are. Thus we have עוֹרִי שְׁחִירָה מְעֻלָּה (Job 30:30) and חֲשֹׁךְ מִשְׁחֹרַת תֹּאֲרִם (Lam. 4:8), both post-exilic occurrences. Although in these two instances the skin-tone alluded to is the result of a calamity, this poses no difficulty for the interpretation of Song. 1:5-6, where the speaker insists that her skin-colour - the result of outdoor living - has nothing to do with her beauty (B.3.3 above.)

At the most, then, we can say that שְׁחִירָה was probably born out of the stylistic necessity for variety, and its derivation from שָׁחַר does not assist us in establishing a structural relationship to the parent lexeme in this particular context. Neither is MH of much use here: not only is שְׁחִירָה a hapax in the OT, it has no real existence in MH either. שְׁחִירָה and its Talmudic Aramaic equivalent שְׁחִירִיתָא seem to be derived directly from שָׁחַר, while שְׁחִירָה - which appears in the Midrash Rabba to our verse⁵ (Song. 1:6) - wholly depends on our שְׁחִירָה.

3.2 חוּם - Gen. 30(J).

Gen. 30:32 - וְכָל שֵׂה חוּם בְּכֶשֶׁבִים

vv. 33, 35 - וְחוּם בְּכֶשֶׁבִים

v. 40 - חום בצאן⁶

3.2.1 Fronzaroli suggests that חום possibly filled the slot referring to 'black, dark coloured' in pre-exilic times, the same slot that was later filled by שחור⁷ derivatives⁷ when, eventually, חום dropped out of usage. This tentative assumption is supported neither by the biblical text - the use of חום is limited to our chapter, and the lexeme modifies only words referring to 'sheep' - nor by the evidence of the ancient Versions, which is quite mixed. The most that can be said about it is that it indeed fell out of favour, to the extent that its approximate reference ceased to be clear to later generations.

3.2.2 Gradwohl⁸ and other modern scholars⁹ rely on etymology: as חום seems to be derived from $\sqrt{\text{חמ}}$, the meaning attributed to it is that of 'dark', 'black'¹⁰ (→ 'burnt', 'blackened').¹¹ This etymological explanation, although it is dictated by the text, is not convincing. At any rate, the text of Gen. 30 presents a conflict between light coloured animals and dark coloured ones on the one hand, and between unicoloured animals and multicoloured ones on the other. 'Dark coloured' could be considered an equivalent of שחור whose reference, as we have seen, is at times not limited to 'black' proper.¹² However, there is no indication - even in ancient texts - that שחור and חום have the same semantic value, and that they are diachronic synonyms which can theoretically be substituted for one another.

The LXX has three times *phaios* ('greyish?') and once *poikilos* ('multicoloured'), the latter obviously not of any relevance to the present discussion. The usual rendering for שחור in the LXX is *melas*. The V has twice *furvus* ('dark', 'lustreless black') and twice *niger*, whereas the usual rendering of שחור is *niger*.¹³ It looks as if there is a certain confusion as to the denotation of חום vis-a-vis שחור: at any rate, there are attempts to differentiate between the two and to assign a specific value to each of them. This explains the two Aramaic translations: although T^o has שחום ('dark coloured', 'brown', or even 'black'¹⁴), in Pseudo-Jonathan we find לחוש = 'reddish'.¹⁵ Rashi apparently relies on the latter when he makes the comment, חום שחום דומה לאדום רש בלעז. לשון משנה שחמתיית ונמצאה לבנה לענין התבואה.¹⁶

On the other hand, the Midrash Hā-gādol comment, יכול

אִיכְמַחָא,¹⁷ makes use of the lexeme אִיכְמָ, which is usually utilized for rendering the Hebrew שָׁחַר.

3.2.3 In view of this self-contradictory evidence, I think it is pertinent to define חֹגֶם not as the earlier equivalent or forerunner of שָׁחַר, but as a specification of it. That שָׁחַר does not appear in texts of the Monarchic period might be attributed either to accidental reasons or to the possibility that this same slot had been occupied by another lexeme, perhaps one generated by either $\sqrt{\text{קדר}}$ or $\sqrt{\text{חשד}}$.¹⁸ Alternately, חֹגֶם may be considered a dialectal term restricted to the sphere of sheep-husbandry and the technical language spoken by shepherds. At any rate, חֹגֶם is a secondary term within the שָׁחַר sector only from a panchronistic and not a synchronistic aspect.

As for the approximate reference of the term, merely 'black' will not do. If we suppose that חֹגֶם became obsolete and was dropped in favour of שָׁחַר, the least that can be said is that we cannot detect the motivation for this semantic process. Even if we attribute it to a growing preference for generating colour lexemes of the $\text{Pa}^{\text{C}}\text{-ol}$ pattern, we should recognize that the tendency is not all-inclusive even on the primary level (cf. לִבְנֵן). Finally, the range seen in the Versions runs from 'dark' to 'black' to 'red', while Modern Hebrew uses the very same lexeme to denote the colour 'brown', which occupies an intermediary position between 'black' and 'red' colour phenomena. Therefore Pines is perhaps right in cautiously suggesting that biblical חֹגֶם has a semantic value approximately parallel to that of Modern Hebrew חֹגֶם.¹⁹ Within the scope of the OT, however, it is isolated, underdeveloped, and structurally a subordinate within the sector governed by שָׁחַר.

C.4 SECONDARY TERMS WITHIN THE ירוק SECTOR

4.1

- Lev. 13:49 - והיה הנגע ירקק או אדמדם
בבגד או בעור או בשתי או בערב...
Lev. 14:37 - והנה הנגע בקירת הבית
שקערוֹת ירקקות או אדמדות...
Ps. 68:14 - כנפי יונה נחפה בכסף
ואברותיה בירקק חרוץ.

4.1.1 ירקק חרוץ

The parallelism of Ps. 68:14 - כסף // ירקק חרוץ - defines the colour term as denoting a 'pale', 'silvery' colour - although the compound itself is a hendiadys referring to 'gold' (according to at least some scholars¹), there is no doubt that this partly duplicated formation of ירקק may function as a diminutive form² denoting pale or greenish 'yellow'.³ If so, ירקק is a specification of the brightness/relative lack of saturation attribute which belongs under the term ירוק and, by its existence in a psalm that is nowadays considered quite ancient, strengthens the position of the latter as a primary term.⁴ This explanation is supported both by extra-linguistic considerations⁵ and by MH. ירקק (ו)קת (Meg. 13a) which describes the colour of Esther's complexion can only mean 'pale',⁶ while the productive force of ירקק in the colour field of MH and Jewish Aramaic⁷ points to a solid status of ירוק and its derivatives already in biblical times.

4.1.2 ירקק and אדמדם (Lev. 13:49) are symptoms of cloth or leather צרעת, and the same lexemes represent צרעת symptoms of building materials in Lev. 14:37.

Although ירוק and אדום are not present in these Priestly diagnostic texts, and so cannot be directly compared to their derived forms, it would seem reasonable that both denote not a change in hue *vis-a-vis* the parental base, but rather a difference in the 'gloss' or saturation/luminosity aspects. Thus, if אדמדם refers to 'glaring, bright pink' - a section of the אדום sector - then ירקק would denote a 'glossy' or 'light' 'yellow/green', a colour quality appropriate to that of mildew, mould or fungi and inclusive to the ירוק sector. The latter term should, at least theoretically, encompass all hue/brightness/saturation attributes not covered by שחר, צהב, אדום, לבן and their immediate derivatives.⁸

C.5 SECONDARY TERMS WITHIN THE צָהָב SECTOR

5.1 Ezr. 8:27 - וכלי נחשת מִצָּהָב... חֲמוּדֹת פְּצָהָב

5.1.1 The existence of a Hof. part. is reason enough to presuppose knowledge of the primary term צָהָב and an active (Hif.) sequence underlying the Hof. form.¹ Even so, the *hapax* מִצָּהָב would not be classified as a secondary term if it did not appear in MH in the same form² - and that despite the fact that other צָהָב derived lexemes feature there too. However, the added explanation - חֲמוּדֹת פְּצָהָב - makes it clear that the term is still not self-explanatory. The explanation was necessary, perhaps, because at this stage מִצָּהָב had just been introduced into the lexis. According to this argument מִצָּהָב belongs under the tertiary rather than the secondary category.

5.1.2 Apparently, the copper vessels described here are compared to gold not only from the general aspect of their beauty, but also from the more specific colour aspect as well. Thus Rashi draws an analogy from our verse to צָהָב in Lev. 13 and says, ולשוון צהוב דומה לתבנית הזהב צהוב כמו זהוב³

Similarly also Qinhi.⁴ While it is true that gold varies in colour according to its relative purity - archaeological as well as linguistic evidence of this abounds - the typical appearance of gold has always been considered gleaming and yellowish in colour. These two attributes are those denoted by מִצָּהָב, and I can see no reason for translating "aus rotglänzendem Kupfer", as Gradwohl does.⁵ Rather, it seems that from the exilic period onwards צָהָב and its subordinates are understood as separate from אֲדָמָה, although the range of the latter might have previously covered at least some sectors of the former (the other parts being previously included in לָבֵן and יָרֹקֶק). מִצָּהָב expresses the aspect of 'be made into a yellowish, bright colour', and by specification - a colour whose visual attributes are similar to those of gold. Interestingly enough, 'gold' is also referred to by means of using a lexeme from another sector of the colour field, cf. יָרֹקֶק חֲרוּץ (Ps. 68:14).⁶ This can be accounted for either by the referential similarity of the visible attributes connoted by either lexeme, or by the fact that each one belongs to a different synchronic layer of the language.

D. TERTIARY TERMS IN THE OT

D.0 The אָדָם sector is the best defined within the colour field. Therefore, not surprisingly, it is the most prolific as far as tertiary terms are concerned. These include אֲדָמוֹנִי (3 times); the syntagm לִבָּן אֲדָמָה (4 times); חֲכָלִילִי (once) and חֲכָלִילִית (once); חֲמוּץ (once, and perhaps one verb formation through an emendation of תִּמְחָץ, Ps. 68:24, to [תִּמְחָץ] מִדָּם); and חֲמֻרְמֻר פָּנִי in Job 16:16 (+ Ps. 75:9?). Apart from sharing לִבָּן אֲדָמָה with the אָדָם segment, the only other לִבָּן dominated lexeme is חֲוִירָה (Isa. 29:22), a single occurrence to which we might add the proposed חֲוִירָה > חֲוִירָה (BH³ to Isa. 19:9). חֲשָׁרָה (חֲשָׁחֹרָה) of Lam. 4:8 is perhaps a tertiary subordinated to חֲשָׁרָה, and the same might be said of נֶחֱוֹת in the syntagm נֶחֱוֹת לִבָּנָה נֶחֱוֹת (Lev. 13:39) - excluding the idiomatic usage of Qal formations of כָּהֵה, usually + עֵינַיִם - where כָּהֵה means 'dull' or 'matt'. No such terms are to be found in the צָהָב or זָרוּק sectors - unless we delegate מִצְתָּב to a tertiary position - which is to be expected from the evolutionary point of view. The referents of most terms are relatively clear, either because of their etymological ancestry (לִבָּן אֲדָמָה, אֲדָמוֹנִי) or their word context (חֲמוּץ, חֲכָלִילִי). Finally, only אָדָם related terms are found in all strata of the language, from pre-monarchical poetry onwards - another proof for the supreme status of אָדָם in the colour field.

D.1 TERTIARY TERMS WITHIN THE אָדָם SECTOR

1.1 אָדָמוֹנִי (ו)נִי

Gen. 25:25 - וַיֵּצֵא הָרִאשׁוֹן אָדָמוֹנִי כָּלֹ כְּאֹדֶרֶת שַׁעַר וַיִּקְרָאוּ שְׁמוֹ עֹשׂוֹ.

1 Sam. 16:12 - וְהוּא אָדָמוֹנִי עִם² יִפֶּה עֵינָיו וְטוֹב רֵאיוֹ.

1 Sam. 17:42 - ...כִּי הִיָּה נָעַר וְאִדְמוֹנִי עִם יִפֶּה מְרֵאָה³

1.1.1 Two preliminary problems related to the occurrences of אָדָמוֹנִי in the passages quoted are:

a. Does the lexeme describe the appearance of hair, as seems to be indicated by Gen. 25:25, or of skin/complexion?

b. Whereas in Gen. 25:25 the term is neutral, it is used as praise in Sam. An analogy between the אָדָם (+ לְבָן) ideal of beauty in Lam. 4:7-8 and the Sam. verses immediately springs to mind - how can we reconcile the instances to each other?

The ancient Hebrew Midrashim do not agree among themselves as to the object whose name is modified by אָדָמוֹנִי.⁴ Of the modern scholars, Skinner seems to prefer the 'skin/complexion' approach;⁵ Gradwohl leaves the question open;⁶ and Gunkel is quite straightforward: he talks about "Hautfarbe".⁷ This last view is justified by the text of Gen. 25. While כָּלֹ כְּאֹדֶרֶת שַׁעַר supplies the etymology to the name שַׁעֲרִי, אָדָמוֹנִי supplies the allusion to אָדָם, אָרָם ('pottage'), and צִיד ('hunting'). The story is enhanced by assuming that two separate physical attributes, not only one, are described. Further, this fits in with the description of David in Sam. which, in turn, is strengthened by the utilization of אָדָם for the same purpose in Lam., a text that belongs to a period of the language in which אָדָמוֹנִי does not feature. As for question b, one must assume that the term is neutral, and thus can be used both in an ameliorative and in a pejorative sense.

1.1.2 Pines says that אָדָמוֹנִי neither corresponds to nor is contrasted with any other colour. Moreover, the evidence of the ancient Versions here is rather dubious: the LXX is late, the V translates *rufus*,⁸ and the Aramaic translations use various forms of אָדָמוֹנִי, especially those used for rendering אָדָם.⁹ These two points should be modified somewhat by the following data.

First, there are two diachronic equivalents to the pre-exilic

אֲדָמוֹנִי - the primary verb form אֲדָמוֹ of the exilic period (Lam. 4:7) and perhaps the secondary term אֲדָמָם (Lev. 13), which defines skin-tone as well and which is considered either post exilic or of the late monarchial era (depending on our view as to the chronological context of P). The various translations of the Aramaic Versions for Gen. 25:25 may have preserved the notion that אֲדָמָם was understood as at least a partial substitute for אֲדָמוֹנִי. The chief Aramaic traditions for our verse are -

T^o: סמוק ככלן דיסער¹⁰
 Pseudo-Jonathan: סמקריי כוליה ככילן דשער¹¹
 Syriac: סמקריי וכלא עזקתא דסערה¹²
 Neophyti I: סמקמק כו [ליה כ] כלן דשער¹³

The Pseudo-Jonathan rendering - which is recommended as an emendation to the text of the Neophyti I¹⁴ - appears again as the rendering of the same Targum to אֲדָמָם in Lev. 13:42,¹⁵ elsewhere translated סמקא (v. 19) or סומקא (14:37).¹⁶ The isolated deviation to סמוקריי (for אֲדָמָם) in Lev. 13 cannot readily be explained, and this will not be attempted here. I would just like to point out that אֲדָמָם might have been comprehended as a synonym, or substitute, for אֲדָמוֹנִי - which is perhaps the reason why no occurrences of אֲדָמוֹנִי are recorded after the exile. While this is no conclusive proof by itself, the non-existence of the term in post-biblical Hebrew literature - apart from passages which discuss the verses here dealt with - is indicative of this trend. Finally, the form סמקמק (Neophyti I) belongs, of course, to the same morphological pattern as אֲדָמָם; it is rather tempting to assume a dependence of the Aramaic form (also in Samaritan Aramaic¹⁷) on the Hebrew one. However, the usual rendering of אֲדָמָם in the Neophyti I for Lev. 13-14 is not סמקמק, but סמוק or סמקא.¹⁸

1.1.3 As for the extra-linguistic reference of אֲדָמוֹנִי, this probably covers the "rotbraun"¹⁹ section superseded by אֲדָם. This interpretation is explained by Gunkel in the following manner: "Mann amüsiert sich über die rotbraune Hautfarbe der Edomiter; die leute, die sich diese Sagen erzählen, werden selber gelblich ausgesehen haben vgl. die Farbe der Kanaanäer auf den ägyptischen Bildern"; therefore, he concludes, אֲדָמוֹנִי is "rotbraun, bräunlich, bronzefarben";²⁰ so also Skinner,²¹

Caspar Levias,²² BDB,²³ and others.

An alternative view is to understand אֲדָמוֹנִי as covering the same sector as אֲדָמָה itself, that is, 'glowing' (see also אֲדָמוֹ, Lam. 4:7), 'red(dish)'.²⁴ The second approach - still well within the area of אֲדָם - is denoted by the Aramaic סְמוּקְרִי.²⁵ In view of the scarcity of the lexeme I find it impossible to decide which of the two is approximately correct. It seems, nevertheless, that the 'reddish', or 'glowing red' reference will suit the 1 Sam. occurrences better than the 'reddish-brown' one.

1.2 לבן אֲדָמָה

Lev. 13:19	שֵׂאת לִבְנָה אוֹ בַּהֲרַת לִבְנָה אֲדָמָה
:24	בַּהֲרַת לִבְנָה אֲדָמָה אוֹ לִבְנָה
:42	נָגַע לִבְנָה אֲדָמָה
:43	שֵׂאת הַנֶּגַע לִבְנָה אֲדָמָה

As stated above, לבן אֲדָמָה should be differentiated from אֲדָמָה - the latter refers to the appearance of cloth and building material 'diseases', but the former - to skin diseases. In addition, לבן אֲדָמָה occurs in apposition to לבן, while אֲדָמָה itself is in apposition to יִרְקָק.

Although treatments of אֲדָמָה tend to confuse it with לבן אֲדָמָה - no firm distinction is made between אֲדָמָה as a component of the syntagm and אֲדָמָה as a single term - I think that the two should be dealt with separately, both on grounds of structure and of reference. Otherwise, no sense can be made of the apparent contradiction between the discussion in Neg. 1:2 and in Tal. Yer. Succ. 53d²⁶ concerning the diminutive or intensive force of אֲדָמָה. The compound naturally refers to both elements, לבן and אֲדָמָה; hence they modify each other, and the syntagm properly belongs under the superordinate לבן as much as under אֲדָמָה. The combination of primary and secondary terms refers to an entity which is distinct from that of each component, but lies on the boundary between them. This seems to be sufficient reason for categorizing לבן אֲדָמָה as an independent unit. Morphological considerations, together with the fact that the term is restricted to the description of skin lesions, dictate its classification as a tertiary term. It must be noted, however, that succeeding generations did not make this distinction; and that Pines is perhaps correct in speculating

that אדמדם later became invested with a diminutive force through its identification with לבן אדמדם.²⁷

1.3 חֲכָלִיל, חֲכָלִילִי

Gen. 49:12 חֲכָלִילִי עֵינַיִם מְזִין וְלֶבֶן שְׁנַיִם מִחֶלֶב

Prov. 23:29-30 לְמִי חֲכָלִילִי עֵינַיִם לְמֵאחֲרַיִם עַל הַיֵּינֶן

The inclusion of חֲכָלִילִי and חֲכָלִילִי under the אָדָם heading is not at all certain. Although historically it has been understood as a 'red' of sorts,²⁸ modern scholars tend to define it as 'dark, dull',²⁹ which is especially suitable for Prov. 23:29 but also quite appropriate for Gen. 49:12. If the second interpretation is adopted - as has been done here - then the crux of the חֲכָלִילִי//לֶבֶן juxtaposition is the brightness vs. dullness contrast rather than a 'white'/'red' chromaticity contrast. In this case, the inclusion of חֲכָלִילִי here is justified only by the general notion which אָדָם originally represents, that is, a chromatic/saturated quality that is felt to be different from שָׁחֹר or לֶבֶן, but otherwise is only loosely defined.

Another solution, also referring to the brightness dimension rather than to *chroma*, is offered by Gunkel. His translation to Gen. 49:12 reads "*Seine Augen funkeln von Wein*"; he continues by emphasizing "*sicher nicht Trube*" and cites Groessmann, who compares חֲכָלִילִי to the similar כְּהֶלֶץ (Ezek. 23:40), "*wodurch sie feurig und glanzend werden*".³⁰ A similar approach is taken up by Caspar Levias, who defines חֲכָלִילִי as a reference to the 'lustre of dark red wine' and חֲכָלִילִי as an 'inflammation of the eye' (from drinking).³¹ This suggestion is, then, a compromise containing both elements of brightness and hue. Further, the possible 'sparkle, gleam' explanation is questioned by Toy, although he too seems to favour the "dull red effect produced by excessive drinking" for Prov. 23:29.³²

To summarize: the Versions and early Jewish commentators understand חֲכָלִילִי (and חֲכָלִילִי) as referring to אָדָם - type hues. In this case it is interpreted as an idiomatic equivalent of אָדָם, as when it is translated by $\sqrt{\text{מַמְקָ}}$ -derived lexemes; or, on the other hand, as a partial synonym of the latter - as in Syriac, where we have זֶרְגָן עֵינוֹהִי מִן חֲמֹרָא³³ - his eyes are 'dark red'.³⁴

On the other hand, modern scholars who do not uphold this

explanation interpret *חכלילי* as either 'dull, dark' (*כחל* < or, by contrast, 'sparkle'. C. Levias's interpretation³¹ brings the two strands together. Finally, as far as the colour value is concerned, the extra-linguistic entity referred to is 'dark', only loosely controlled by *אָדַם*. Alternately it is the saturation or brightness element which is emphasized, in which case the discussion of *חכלילי* here is highly questionable. Even so, it must still be considered a colour term,³⁵ together with such lexemes as *חֹשֶׁן* and *כְּהָה*.

1.4 חמוץ, $\sqrt{\text{חמוץ}}$.

Isa. 63:1 - מי זה בא מאדום חמוץ בגדים מבצרה

Ps. 68:24 - למען תמחץ רגלך בדם - BH³: a proposed

emendation to למען תחמץ רגלך מדם לשון כלבד מאדם מנהו. ^{36,37} The hapax חמוץ is defined by its context as referring to some visible phenomenon linguistically classified under אדם. Etymologically the lexeme belongs to the field of 'taste' or 'heat', not that of colour.³⁸ The Jewish Aramaic meaning of 'scarlet, red' attributed to חמוצא, חמוצא and recorded by Jastrow³⁹ is probably dependent upon our passage, and of little value for the identification of חמוץ itself.

As for Ps. 68:24, the second proposal recorded in BH³ - **בדם** - is corroborated by some of the Versions (LXX, Syriac, Aramaic T) and by another biblical verse (Ps. 68:11).⁴⁰ On the other hand, the substitution of **מַאֲכִיבִים** for **מַאֲכִיבִים** solves the problem of **מַאֲכִיבִים** and **מַנְהֶה**, while employing a full imagery revolving round a 'blood' + 'red' picture. However, this reconstructed picture, although a possibility, relies too heavily on Isa. 63:1 ff. for its sense and its meaning. I think that Gradwohl is probably right in defining **חַמּוּץ** as a 'violent, glaring red' = 'blood colour',⁴¹ for this is indicated by the context of the passage.

1.5 *חֲמֵר מֵר

פְּנֵי חֲמֻרְמָרָה (Q : חֲמֻרְמָרָה) ⁴² מִנִּי בְּכִי - Job 16:16

1.5.1 The word context of the verse points to an interpretation of חמרמרו as a colour term denoting some kind of 'redness' of the face, the result of excessive crying. However, the etymologies suggested for this חמר derived lexeme, as for other חמר formations, are far from satisfactory. Thus Gradwohl, after considering biblical evidence together with the cognates,

actually admits defeat.⁴³ Biblical dictionaries present quite a confused picture as to the differentiation and the organization of various חמר roots and the text occurrences that belong to each.⁴⁴ Because there is no agreement and because this line of research - although interesting - proves to be fruitless for our problem, another direction of questioning is to be pursued here.

1.5.2 חמרמרו of Job 16:16 differs from the חמרמרו in Lam. 1:20, 2:11 in its syntagmatic structure. The latter occurrences - חמרמרו מעי and מעי חמרמרו respectively - seem to be an idiom, one that is still vital in MH.⁴⁵ Therefore, the difference in usage is much more important than that of genetic origin, and perhaps much more illuminating. As it is, the various חמר and חמר roots preserved in OT language have become well nigh indistinguishable through phonetic shifts and/or semantic contiguity. This may have occurred through the common derivation of both חמרמרו forms from a $\sqrt{\text{חמר}}$ denoting 'boil, heat',⁴⁶ or through a possible current allusion to חמר (= יין),⁴⁷ of which both qualities of fermentation and colour can be considered a typical attribute.

To come back to the evaluation of מעי חמרמרו vs. פני חמרמרו : even though Lam. 2:11a - כלו בדמעות עיני - is reminiscent of Job. 16:16, it presents a stereotyped picture of grief that is different from that of חמרמרו מעי. The latter is well defined by the analogy in Lam. 1:20, - נהפך לבי בקרבי (= 'my heart was disturbed, agitated') - although whether this חמרמרו is related to $\sqrt{\text{חמר}}$ = 'ferment' or $\sqrt{\text{חמר}}$ = 'burn, parch' is again not very clear.⁴⁸ At any rate, the 'disturbed, agitated' explanation is hardly adequate for the image conjured up by the words of Job. 16:16 - the 'red(denned)' element here alluded to is dictated by common sense, if not by any other considerations. Thus the rendering, "My face is flushed with weeping"⁴⁹ looks like the best solution.⁵⁰

D.2 TERTIARY TERMS WITHIN THE לָבָן _ד SECTOR

2.1 חֹרֶךְ

Isa. 29:22 - לא עתה יבוש יעקב ולא עתה פניו יחורו
 (Isa. 19:9 - ובשו עבדי פשתיים שריקות וארגים חֹרֶךְ Cf. BH³, and the text in IQIsa^a, where we find חורו for חורי. As a result of the proposed emendation the text in both instances will have the same parallel pair - חורו/בוש). חֹרֶךְ (in the OT in Dan. 7:9) is the regular Aramaic equivalent of the Hebrew לָבָן,¹ and through Aramaic it probably infiltrated post-biblical Hebrew as well.² Further, the concept of 'paleness of face' as indicating shame - which is the subject matter of both verses cited above - is expressed in MH by an idiom containing a לָבָן-derived form, כל המלכין פני חברו ברבים.³ Therefore, conclude Melamed⁴ and Gradwohl,⁵ the verb form in biblical Hebrew is a loan from Aramaic.

On the other hand, the occurrences of חֹרֶךְ (LXX: *byssus*) in Esther 1:6, 8:15,⁶ although late and unique to this book; the proper names חֹרֶךְ, חֹרֶי, חֹרֶה, whose etymologies are obscure;⁷ the early חֹרֶי of Gen. 40:16 - 'white bread and cake'⁸ or 'white flour';⁹ according to Qimḥi, even חֹרֶים = 'nobles, freemen';¹⁰ and finally, the existence of the root *ḥwr*, alongside *ḥbyḏ*, as a colour denoting base in classical Arabic, not only in Aramaic and in Syriac¹¹ - all these point to the possibility that חֹרֶךְ had originally been, alongside לָבָן, a member of the basic stock of Ancient Semitic, available for utilization in Hebrew as well as in Aramaic; that it was later discarded - not without leaving some related traces in the lexis - in favour of the more popular לָבָן; and that only later still it was reintroduced into Hebrew, this time through the secondary influence of Aramaic.¹²

D.3 TERTIARY TERMS WITHIN THE שחור SECTOR

חֹשֶׁךְ

:ד

Lam. 4:8

חֹשֶׁךְ מִשְׁחֹרַת תֹּארוֹם

Bib. שחור denotes 'black' but also the less specific 'dark',

although not the 'darkness' of night but rather that of complexion or hair.² The absence of normal natural light, i.e., daylight, is habitually referred to by אֶפְלָה, חֹשֶׁךְ (Jo. 2:2), or קֶדֶר.

Hence, חֹשֶׁךְ belongs to the semantic field of 'darkness/light' - within the structure of the vocabulary it lies on the boundary of the colour field; but, although the two overlap in places, representing related stages of cognitive and linguistic development, they are basically distinct from each other.

חֹשֶׁךְ מִשְׁחֹרַת, however, has a unique flavour:³ its sense would best be transmitted as 'darker than dark', 'blacker than black'. As such, the poetic usage of חֹשֶׁךְ in our verse attributes more colour intensity to חֹשֶׁךְ than to שחור. Therefore, within this idiolectic and emotive framework, חֹשֶׁךְ does function as a proper colour term whose denotation is self-defined, in contradistinction to the occurrences of other lexemes derived from the same base.

3.2 כָּהָה*

Lev. 13:6

לָבֵן // כָּהָה הַנֶּגַע (v.4)⁴

v. 21 לָבֵן אוֹר... לָבֵן אֲדָמָה // (שֵׁאת, בְּהִרְתָּ) כָּהָה. (v.18).

v. 26 לָבֵן אֲדָמָה אוֹר לָבֵן // (בְּהִרְתָּ) כָּהָה. (v.24).

v. 28 כָּהָה (as in previous instance).

v. 39 (בְּהִרְתָּ בְּהִרְתָּ) לָבֵן // (בְּהִרְתָּ) כָּהָה לָבֵן. (v.38).

v. 56 יִרְקַק אוֹר אֲדָמָה // (הַנֶּגַע) כָּהָה (v.49),⁵

(v.55). לא חָפַר... אֶת עֵינָיו

3.2.1 To begin with, one must classify the difference between the above-listed occurrences and between the other occurrences of כָּהָה-derived forms in biblical language. The other occurrences can be roughly divided into verb forms and nominals (functioning as noun modifiers). The verb category includes both Qal and Pi. formations. The Qal formations - barring one instance, Isa. 42:4 (cf. below) - always appear in a tight syntagmatic construction (noun phrase + verb phrase, or subject and predicate) with עֵינַיִם or עֵינִי, thus -

Gen. 27:1 וַתְּכַהֵן עֵינָיו מֵרֵאשִׁית. (Isaac).

Dt. 34:7 לֹא פָתַח עֵינָיו וְלֹא נָס לְחוּר. (Moses).

Zech. 11:17 ^{וְעֵין יְמִינוֹ כְּהָה תִּכְהֶה} (the shepherd)

Job 17:7 ^{וְהָיָה מִכְעַשׂ עֵינַי}⁶

Hence, we have an idiom which features in various types of OT literature, and of different chronological ages. The message is clear - the idiom describes a state of lack of sight, or dimness of sight, due to old age or to excessive crying (for grief). It is similar to other expressions employing a verb form + עין (עינים) and signifying the same idea, viz. חֲשָׁכָה עֵינַיִם (Ps. 69:24, Lam. 5:17; cf. section 3.1 above), עֵינָיו קָמָה (1 Sam. 4:15), and עֵשָׂה מִכְעַשׂ עֵינָיו (Ps. 6:8). Therefore, although it seems etymologically identical to the $\sqrt{\text{כהה}}$ - derived term in Lev. 13, its actual usage within the language marks $\sqrt{\text{כהה}}$ Qal as an only partly transparent component of an idiom meaning 'x cannot see'. As such it lies outside the sphere of the present investigation. The same argument excludes the nominal כְּהָה* in the syntagm הֵחֵלּוּ כְּהָה, 1 Sam. 3:2 (cf. 4:15).

The last Qal form,⁷ לֹא יִכְהֶה וְלֹא יִרְוֶץ (Isa. 42:4, together with the other occurrence in the same chapter - פָּשְׁתָה כְּהָה לֹא יִכְבְּנָה, v. 3), albeit late, probably represents the basic sense from which, by internal polysemic shifts, both usages of 'become unseeing' and 'dark or matt' (Lev. 13) were derived.

Although these two instances supply an important link, they are not considered members of any stratum of the colour field, for they clearly refer to 'dim' or 'dimming'. Finally, the Pi. forms (1 Sam. 3:13, Ezek. 21:12) are so far removed in sense and reference - to 'rebuke' or 'lessen' - from the Qal forms as to warrant a separate genealogy,⁸ although Ezek. 21:12 may express a metaphorical development of the basic sense.⁹ As for the nominal כְּהָה (רוּחַ, Isa. 61:3), this belongs with the verb form of Ezek. 21:12. The כְּהָה of Nah. 3:19, though considered a nominal exhibiting the same basic sense of 'dimming, lessening → relief',¹⁰ is better amended to גָּהָה¹¹ = 'healing', and is rightly treated as an independent entry whose connection with the colour term כְּהָה, if any, is opaque.

3.2.2 On the other hand, the $\sqrt{\text{כהה}}$ forms of Lev. 13 are defined by their general context and their oppositions as a colour term, and this should be discussed independently of the other forms reviewed above.¹²

The clue to understanding the reference of the term is to

be found outside the OT. M. Neg. 2 deals with the difficulty of perceiving a פֶּהָרַת פֶּהָרַת against a dark skin or when examined under unfavourable conditions of light (Neg. 2:1 ff.). In the same source, the antithetical term defining פֶּהָרַת by contrast is פֶּהָרַת עֵצָה. Applied to the 'appearance of skin lesions' described in Lev. 13, it means that פֶּהָרַת denotes 'darkening', or perhaps 'lack of gloss' - although the last interpretation is questionable in the case of the פֶּהָרַת, (v. 39) alluded to by פֶּהָרַת לְבָנָה and פֶּהָרַת פֶּהָרַת לְבָנָה (vv. 38, 39). If so, then פֶּהָרַת refers specifically to the dimension of intensity, or (lack of) luminosity, not to any chromatic quality. Thus it defines only one attribute of the phenomena which creates a sensation of colour. Hence, its inclusion under שֹׁחַר is only partly justified. Alternately, it should be classified - together with the עֵצָה of MH - under a separate heading presenting terms which refer to secondary attributes.¹³

E. MAN MADE 'COLOURS': PAINTS, DYES, PIGMENTS, DYED MATERIALS, MAKE-UP, WRITING MATERIALS

O. CLASSIFICATION AND GENERAL REMARKS

O.1 Gradwohl divides the section into four main parts:

- I. Terms for colouring.
- II. Animal-derived dyes.
- III. Vegetable dyes.
- IV. Mineral dyes.¹

The guiding principle of this arrangement - the origin of the pigment in the 'real' (= extra-linguistic) world - is valid as such, but not linguistically meaningful. There are no linguistic indications - morphological or lexical - that this is the principle of organization according to which the speakers of a given language classify the lexical signs referring to the relevant colour experience. On the level of daily life and therefore, on that of linguistic collocation, the sphere of application is probably more important than that of derivation, usage more definitive than etymology.

Further, this way of organization does not explain certain features of the linguistic structure, such as the dual function of most names for textiles. These usually designate both a colour property and the type of material dyed by the specific agent (and see below).

Our classification is organized under the following headings:

- 1) Colour and paint, colouring and painting.
- 2) Textiles (2.1 Crimson, scarlet - שָׁנִי, תוֹלַע, כְּרַמִּיל, שָׁנִי; תולעת שָׁנִי; תכלת, ארגמן; 2.2 Purple-pink to very dark - שֵׁשׁ-לָבָן; 2.3 חור, כרפס, בוץ, שֵׁשׁ-לָבָן; 2.4 - Multi-coloured textiles).
- 3) Cosmetics (שֹׁהַד, כְּהֶלֶץ, פוֹחַ).
- 4) Dyeing Agents, pigments (4.1 שֹׁהַד, צֹהֵב, אֶדָם; פוֹחַ, שֹׁהַד - שֹׁהַד, צֹהֵב, אֶדָם; 4.2 שֹׁהַד, צֹהֵב, אֶדָם; 4.3 שֹׁהַד, צֹהֵב, אֶדָם).
- 5) Writing Materials (5.1 שֹׁהַד - שֹׁהַד; 5.2 שֹׁהַד - שֹׁהַד).
- 6) Whitewash (גִּיר, שִׁיד).

Hypothetically an informant, unless specialized in textile dyeing or pigment making, would classify the terms enumerated above according to the visual attributes designated by them within the double-stranded frame of reference, that of *materia* and that of visible colour. *A priori* it would seem that in a non-specialized context the colour would be recognized as a more

important element than the type of cloth. This is reflected in the language. Thus *שָׁנִי*, *אַרְגָּמָן*, *כְּרָמִיל* are the names of specific hues within the *אֲדָמָה* sector (with *חֹכְלֶת* bordering on it), and can function both as names for pigments and as proper colour notations (especially in poetic contexts - Isa. 1:18; Song. 4:3, 7:6; Nah. 2:4), as well as designations for the actual fabrics - most commonly wool - that are dyed with the specific pigment. This too would support our categorization *contra* Gradwohl's. On the other hand, fabrics which are known to us to have been 'white' - bleached, but not dyed - require no specific chromatic definition. Linguistically they are not represented by names for colour or for colouring and do not function in comparative structures or in metaphors of the type cited above. Their colour significance, although clear, has to be discovered etymologically (2.3 below), because it is only one of the typical qualities designated by them. Strictly speaking, such lexemes should be placed under Indirect Colour Allusions; they are discussed here merely in order to present a more complete picture of the textile field.

The situation concerning materials for make-up is different - here the actual colour signification is all-important. Theoretically the referents should be clear enough. Unfortunately, the number of occurrences does not warrant a straight-forward identification (3 below). The few names for pigments that we know, mainly from extra-biblical sources, are not colour names (4 below). These terms are often simply the lexemes referring to the source from which the dyeing agent is extracted (mostly from plants, in our case). They are different from group 2 of our list in that they do not lend their names to certain kinds of fabric. Materially they are dissimilar to *שָׁנִי*, *אַרְגָּמָן*, and *חֹכְלֶת* also from another aspect: they were not used on their own but were mixed, in varying proportions, to achieve different chromatic results. (When variation is required for the manufacture of items denoted by group 2 terms, methods of dilution and processing are resorted to,² rather than mixing). Thus, chemical analysis of dyed wool fabrics Yadin discovered in a Judean Desert cave revealed that only four colouring agents - indigo, alizarin (*פִּזְאוּה*), carminic acid, and saffron, together with alum-iron mordants - were utilized for the production of a

total of 33 (!) hues.³ There is no reason to believe that the methods used by the dyeing industry during the late Mishnaic period were not similar, even if more modern, to those practised hundreds of years earlier. On the other hand, this makes the 'hue' classification of the terms designating the dyes in accordance with Primary Term headings impossible, which forms another distinction between the members of groups 2 and 4. Perhaps this is the reason why group 4 terms are never used to convey a colour notion through a metaphor or simile. Writing materials: דִּילָן is neutral, and extra-biblical sources are to be appealed to for discovering its colour denotations, for no connotations of the lexeme itself point in this direction.

Finally, whitewashing: again, no direct allusion can be found in biblical literature for an equation $\text{לָבָן} = \text{גִּיר}$ or שֵׁיט , or the practice of using גִּיר and שֵׁיט for achieving white looking surfaces. The lexemes, their meaning, and their status have to be explained by using the occurrences in MH, which is invaluable for the investigation of the whole field.

E.1 COLOUR AND PAINT, COLOURING AND PAINTING - GENERAL TERMS

1.1 Archaeological evidence as well as literary sources make it clear that not only were coloured textiles (and ceramics) known to the inhabitants of Palestine, but that they were also locally produced.¹ The detailed information transmitted in post-biblical sources about the arts of painting and dyeing seems to be the result of centuries-old practice,² and Yadin's excavations corroborate this, albeit for the second century A.D.³ Apart from this extra-biblical evidence, the bible itself supplies us with some data, although indirectly.

Even the passages dealing with the making of the Tabernacle and its contents by Bezal'el, Oholiab, and their colleagues⁴ do not credit the ancient craftsmen with the knowledge of preparing purple dye and applying it to cloth. On the other hand, cheaper pigments were probably used by local industry for pre-monarchical days onwards. The transmitted naming of two Issachar descendants (Gen. 46:13; 1 Ch. 7:1,2), fathers of tribal branches (Num. 26:23⁵), after the two pigments sources תולע ('kermes') and פואה ('madder') - the former an animal extraction, the latter a vegetable dye - probably indicates the existence of dyers' guilds in ancient Israel.⁶ Undoubtedly it is no coincidence that these individuals and the minor Judge⁷ תולע בן פואה בן דודו (Jud. 10:1,2) belong to a northern tribe whose connections with the Phoenicians may have been particularly strong.^{8,9} A later tradition (1 Ch. 4:21) tells of a byssus workers' guild within the tribe of Judah. While the lexeme פגין itself is late - the post-exilic equivalent of earlier שש¹⁰ - the tradition can be accepted as valid at least for the late biblical period. As Herszberg points out, the art of making fine white linen, although involving no usage of pigments or dyes, is quite complicated,¹¹ and therefore is included under the present heading.

1.2 This is as far as our extra-linguistic evidence will go. The linguistic evidence is even more sparse. There is no general term for 'colour' - the צבע* of Jud. 5:30 (שָׁלַל צִבְעִים) is probably a homonym of the MH צבע = 'dye', 'pigment' → 'colour' and its derivatives.¹² Etymologically, צבעים, צבוע, גִּי הַצִּבְעִים, and perhaps צבעון of biblical Hebrew are distinct from the √צבע =

'dip', 'wet' - of biblical Aramaic¹³ (Dan. 4:12, 20, 22, 30; 5:21, Pa. and Hithp.), the latter being the source of the new term which fills the obvious gap in MH.¹⁴ No term for the activity of 'painting' or of 'drawing' has come down to us either.¹⁵ The conjectured $\sqrt{\text{סמם}}$, allegedly to be found in 2 Ki. 9:30 (וַתִּשֶׂם בַּפּוֹחַ עֵינֶיהָ), Job 13:27 (וַתִּשֶׂם בַּסֵּד רַגְלֶיהָ), and Job 33:11 (וַתִּשֶׂם בַּסֵּד) is far from satisfactory. The MT is better retained in Job (אֲרוּחוֹתַי/רַגְלִי; סֵד = 'stocks'), while the usage of the general verb $\sqrt{\text{שם}}$ is, for lack of any specialized term, perfectly in order for 2 Ki. 9:30. Further, סם/סממנים, סמים, in biblical Hebrew or in MH refer to 'drugs' and 'chemical agents', loosely defined and/or narrowed down by each of their contexts, not necessarily to 'dyes/pigments' and certainly not to 'colour' alone.¹⁷ Hence, the existence of the term in this particular slot in OT Hebrew is unsubstantiated.¹⁸ מָשַׁח (Jer. 22:14), although syntagmatically connected to שָׁשַׁר, presents a *hapax* in such a context and nothing can be deduced from it for OT language. Similarly, the semantic gap might be the reason for enlisting a lexeme from a close, partly parallel field to serve where no specialized term exists in Gen. 49:11b - כָּבַס בֵּינִי לְכוֹשׁ וּבָרַם עֲנָבִים סוֹתָה. The verb form כָּבַס undoubtedly signifies not 'washing' or 'cleansing' but 'dyeing'.¹⁹ The usage makes sense not only because washing is one of the steps of the cleaning/dyeing process, but also because $\sqrt{\text{כבס}}$, which is related to $\sqrt{\text{כבש}}$, perhaps still retains the allusion to 'tread, press'. 'Tread' is the basic signification from which both $\sqrt{\text{כבס}}$ and $\sqrt{\text{כבש}}$ developed in different directions: 'wash'; and 'oppress', 'subdue'.²⁰ Similarly, we remember, the superordinate lexeme for 'dyeing' in MH is derived from $\sqrt{\text{צבע}}$, originally (as in Dan.) meaning 'dip, wet'. In both cases the area of reference is expanded and then narrowed. $\sqrt{\text{כבס}}$, however,²¹ remained in the field of 'washing and cleaning'.

1.3 The absence of specific superordinate terms for either 'colour' or 'pigment/dye' of any kind dictates utilization of other general terms when these topical notions have to be communicated. The latter are taken from the field of visual perception (of which the colour field is a natural component). These are²² 1) פָּעִיר, עֵינִי - thus תְּפִלָּה (Num. 11:7); most occurrences of names of metals and precious stones in Ezek.

(ch. 1, 8, 10); one in Dan. (10:6); the colour appearance of skin lesions in Lev. 13; and perhaps also יִצָח (BH³; from Lam. 4:7; MT - יִצָא - מַחֲלֵב עֵינֵיהֶם = 'their appearance' (= 'complexion') is more dazzling than milk, Ps. 73:7. From the point of view of distribution this lexical development of עֵיִן is almost unique to Ezekiel, P, and a few post-exilic sources. 2) מִרְאָה, of the formula מִרְאָה...כְּעֵיִן, sometimes serves in specific 'colour' contexts - מִרְאָה כְּמִרְאָה נְחֹשֶׁת (Ezek. 8:2), מִרְאָה כְּמִרְאָה צֹרֵחַ (Ezek. 40:3), מִרְאָה כְּמִרְאָה צֹרֵחַ (Lev. 13:43). The distribution here is exclusive to Ezekiel and P.²³

In both cases, the material is too localized to support polysemic development within the colour field of either term. At the most, they serve as substitutes where there is a need to fill a semantic void or to side-step it. On the other hand, MH possesses quite an array of 'blanket terms', well differentiated into 'colour'/'dye'/'pigment' categories, either borrowed from other fields or original to ours.²⁴

E.2 TEXTILES

2.1 SCARLET, CRIMSON (types of אָדָם):

תולעת שני, שני תולעת, שני, תולע, מחלעים, כרמיל

2.1.1 Occurrences and distribution

- תולעת שני = Ex., Num., within the description of the materials for the Tabernacle.
- שני תולעת - Lev. 14:4, 6, 49, 51f.; Num. 19:6. The context is that of a ritual cleansing/expiation ceremony in which cedar wood, hyssop, and two birds are used as well.
- שני - Gen. 38:28, 30; 2 Sam. 1:24; Jer. 4:30; Josh. 2:18, 21 (תְּקוֹת חוּט הַשָּׁנִי; תְּקוֹת הַשָּׁנִי); Song. 4:3 (כְּחוּט הַשָּׁנִי שֶׁפָּתוּרִיר); Conjectured from שָׁנִים - Isa. 1:18, Prov. 31:21.¹
- תולע - Isa. 1:18 (יֹאדִימוֹ כְּתוֹלַע); Lam. 4:5 (+ n.pr.m., Jud. 10:1, Gen. 46:13, Num. 26:23, 1 Ch. 7:1,2; and התולעי, Num. 26:23).
- מחלעים - Nah. 2:4
- כרמיל - 2 Ch. 2:6, 13; 3:14. Conjectured - Song. 7:6 (MT ארגמן//כרמיל)

2.1.2 The kermes worm (*Coccus ilicis* L., the shield louse)² lends its name, or part thereof, both to the colour appearance 'crimson' (Song. 4:3, Isa. 1:18) and to the material/cloth of the same colour - תולעת שני (Ex., Num.), כרמיל (2 Ch.), and שני (Gen., 2 Sam., Jud., - 'crimson thread').

The abundance of designations referring to the same items, as can be gleaned from the list above, may be explained as belonging to sources that are diachronically separate and/or stylistically distinct.

The 'coloured material' is designated in P by the tautology תולעת שני (whereas the same material, elsewhere termed חוט שני,³ when used for ritualistic purposes is arranged in the reverse order - שני תולעת⁴). The other sources, narrative and prophetic alike, usually have שני only. In Isa. 1:18 the occurrence of (יֹאדִימוֹ) כְּתוֹלַע is probably dictated by the need to parallel (כְּשָׁנִי), at the beginning of the verse. The hapax מחלעים (Nah. 2:4), paralleling מֵאֲדָם of the first stich, may be the result of the influence of the form of the latter. Lam. 4:5, on the other

hand, contains a straightforward substitution of תולע for שני. In 2 Sam. 1:24 we read וְהַמְלִיכָם שְׁנֵי עֵם עֲרֹנִים; when we compare this phrase to Lam. 4:5a, הַאֲכָלִים לְמַעַרְנִים, and especially if we accept one of the emendations forwarded in BH³ - לָהֶם עֲרֹנִים - then Lam. 4:5 seems to be a literary borrowing from 2 Sam. 1:24. Seen in this light, the substitution of תולע for שני (v. 5b) is meaningful; moreover, although MH uses mainly the Aramaic term זְהוּרִית,⁵ the archaizing Temple Scroll from Qumran has תולע, not שני.⁶ The former is also attested as a personal name from the period of the Judges. Finally כְּרִמִּיל, referring to the material as well as to the colour (Song. 7:6), is a rare post-exilic synonym⁷ which - in the last analysis - was not accepted: in MH the Aramaic זְהוּרִית features largely, while כְּרִמִּיל seems to have been dropped.

2.1.3 Gradwohl derives שְׁנִי both from Ugaritic *tn* and Arabic *sana'* - 'gloss, light';⁸ according to him, the passage in Gen. 38 (where a crimson thread is tied onto Zerah's hand) and the Aramaic זְהוּרִית strengthen this interpretation.⁹ However, Blau comments that one should choose either the Arabic or the Ugaritic cognate as a base;¹⁰ and Landsberger proves - I think satisfactorily - that זְהוּרִית is derived from a culture word whose origin is opaque, and that Gradwohl's attempt to define both שְׁנִי and זְהוּרִית as originally designations of 'gloss', 'light', is - to quote - 'eine wilde Etymologie'.¹¹ He suggests a connection between שְׁנִי and Akk. *šanu*, *šīnītu* - 'colourful',¹² 'dyed' (textile).¹³ In Hebrew, then, the wider sense has been narrowed to denote a 'dyed textile' *par excellence*, second in value only to תכלה וארגמן ('purple'), while the original range was retained in the source language. The borrowed term, with its narrowed sense, then functions as the equivalent of תולע, a native term referring to 'worms' in general and, by specialization, to the kermes worm.¹⁴ It is clearly understood in narrative and prophetic sources that the two distinct terms relate to the same extra-linguistic entity: the tautological usage of P is secondary, perhaps the result of an overloading of תולע, תולעת, and a subsequent requirement for a modifier when the term is employed as a denotation for coloured/dyed textile of a certain type.

2.1.4 The actual reference to a 'scarlet, crimson' appearance is included within the scope of biblical אָדָם. Thus both תולע and

שָׁנִי serve for conveying the sin/purity, blood (of sacrifice)/cleanliness, אָדָם/לָבָן contrasts of Isa. 1:18. As for Song. 7:6, if the mention of פְּרָמִיל (= פְּרָמֶל) and אֲרָגְמָן מֶלֶךְ¹⁵ has nothing to do with a colour reference but is a roundabout allusion to expensive, rare stuff, then there is no problem. Otherwise some emotive meaning must be assumed - perhaps Feliks is right in referring to the weaving process,¹⁶ although henna-dyed hair seems to be out of the question here. Finally, in Song. 4:3 (כְּחוּט הַשָּׁנִי שִׁפְתוֹתַי), שָׁנִי again functions as an emotive equivalent of the superordinate אָדָם, while in כִּפְלַח הָרִמּוֹן רִקְתָּן the pomegranate has no colour connotation, although it was used for dyeing in post-biblical times (cf. MH).¹⁷ The beloved's cheek¹⁸ is compared to a rounded pomegranate slice for fullness and symmetry.¹⁹

2.2 PURPLE: אֲרָגְמָן, תְּכֵלֶת

2.2.1 אֲרָגְמָן - Occurrences and distribution.

אֲרָגְמָן occurs in the OT 39 times, together with one אֲרִגְוֹן (2 Ch. 2:6) and 3 times, אֲרִגְוֹנָא (Dan. 5:7, 16, 29). In most passages it appears as one component of a sequence naming rich and expensive materials, two or more in number. Some of the syntagms are recurrent, as if they were regular formulae. Thus,

a. תְּכֵלֶת וְאֲרָגְמָן - Jer. 10:9, Ezek. (5 times), and mainly within the P sections dealing with the Tabernacle.²⁰ In many of these verses we have the quartet וְשֵׁשׁ מִשְׁזָר וְתוֹלַעַת שָׁנִי וְאֲרָגְמָן וְתוֹלַעַת שָׁנִי (Ex. 25:4 and more),²¹ the supposed colour symbolism of which later generations repeatedly pondered.²²

b. שֵׁשׁ וְאֲרָגְמָן - Prov. 31:22,²³ or

בֹּוץ וְאֲרָגְמָן - Esth. 1:6; 8:15.

c. אֲרָגְמָן וְרִקְמָה (וּבֹוץ) - Ezek. 27:16.

d. בֶּאֱרָגְמָן בְּתֵכֶלֶת וּבֹוץ וּבְכֶרֶמֶל - 2 Ch. 2:13 (and cf. 2 Ch. 3:14 for the same list, but in different order).

e. In parallelism: זֶהָב//אֲרָגְמָן - Song. 3:10.

כֶּרֶמֶל//אֲרָגְמָן - Song. 7:6.

f. אֲרָגְמָן as noun modifier: בֶּגֶד אֲרָגְמָן - Num. 4:13;

Jud. 8:26; חֲבִלִי אֲרָגְמָן - Esth. 1:6; תְּכֵרִיךְ אֲרָגְמָן - Esth. 8:15.

In MH this practice of using אֲרָגְמָן as a noun modifier is carried further: there we have חוּט, לְשׁוֹנוֹת, מְשִׁיחוֹת, תְּכֵרִיךְ of אֲרָגְמָן (and of זָהָב, 'crimson').

2.2.2 תְּכֵלֶת - Occurrences and distribution.

a. As the first component in the syntagm תְּכֵלֶת וְאֲרָגְמָן - cf.

2.2.1, a. *supra*.

b. תכלת וחור - Esth. 8:15; ותכלת (כרפס) חור - Esth. 1:6;
cf. 2.2.1, b. above for the parallel בורץ וארגמן.²⁴

c. תכלת ורקמה (בגלומי) - Ezek. 27:24; cf. v. 7 -
שש ברקמה...תכלת וארגמן

d. תכלת as modifier for: בגד - Num. 4:7 (and v. 12); in
the previous verse - בגד פליל תכלת, as in Ex. 28:31 - פליל תכלת,
pure תכלת; פתיל - Ex. 28:37; ללאות - 26:4; רמני (תכלת וארגמן)
(26:28, 33. ותולעת שני)

2.2.3 In fact ארגמן and תכלת appear more often as a pair than
as separate terms. They also interchange as signifiers for royal
attire, that is, as a symbol of power and government. Thus
Jud. 8:26, ובגדי הארגמן שעל מלכי מדין, is analogous to Esth. 8:15
- ולבוש מלכות תכלת (וחור). תכלת is usually designated in
English by 'blue purple'. However, it must be borne in mind
that extra-linguistically darker 'purple' wools differed from
lighter ones (ארגמן) more in saturation than in hue; further,
the terms תכלת and ארגמן are generic, not specific. Although
cognates for תכלת abound,²⁵ תכלת itself is a rather vague colour
marker. Parallel terms, for example the Ugaritic *ḫm* ('dark',
almost 'black') and the Akk. *ignī, ugnātu* ('lapiz-lazuli' colour),
convey the colour diversity referred to by תכלת much better
than our term.²⁶ Landsberger supplies a synoptic list of
תכלת/ארגמן terms in the Near East and in the early Versions:²⁷
the various terms probably reflect the local popularity of one or
the other 'royal purple' shades, all of them the produce of
different articulations of the same basic dyes.²⁸

One last point: תכלת, when in conjunction with ארגמן,
always appears as the first member of the pair.²⁹ It is usually
thought that ארגמן was the more expensive of the two.³⁰ However,
one should ask whether the rigid word order does not reflect
(subjective) relative importance attributed to the product cited
first, at least for the user of that idiom.³¹ This importance
can be the result of price, or - which cannot be ascertained -
connected to a symbolical value attached to תכלת shades that
were considered typical (sea? sky, with a taboo attached, at
least in OT times? and cf. Tal. Bab. Soṭ. 17a and Hull. 89a,
among others).

2.2.4 **אַרְגָּמָן** is usually translated as 'red purple'. Plinius states that the typical, most expensive shade was a dark rich purple, the colour of coagulated blood,³² quite similar to crimson. Hence, the less expensive *kermes* was used for imitating this kind of 'purple'.³³ Other **אַרְגָּמָן** shades ran from 'pink' to other types of 'red', bordering on 'violet'/'dark purple' (= תְּכֵלֶת). "Only in the last 150 years has purple meant a definite shade with two permissible variations".³⁴ Again, the lexeme **אַרְגָּמָן** itself signifies mainly wool dyed in a certain way (by a pigment derived chiefly from *Murex brandaris* and *Murex trunculus*).³⁵ Insofar as it carries a colour reference, this depends on the most popular/typical shades current, in our case, among OT people. This wide scope, although still under **אָדָם**, is perhaps one of the reasons why **אַרְגָּמָן** is relatively unsuitable for metaphoric - emotive expression.³⁶

2.2.5 Of the actual extracting of **אַרְגָּמָן** and תְּכֵלֶת dyes, their processing, and the extended monopoly of the Phoenicians much has been written,³⁷ and the process has been defined as well as can be expected. Etymologically, the attempt to derive **אַרְגָּמָן** from Sanskrit *rāg* = 'colour', 'red' (Benari, before 1858,³⁸) is not convincing: rather, as Loewenstamm sums up, we should accept Albright's opinion that this culture word can be traced to Hittite *arkamma(n)*, with the sense of 'tribute' → 'expensive dyed cloth', and that the colour notion is carried by the lexeme only in the last stage of its development.^{39,40} The same usage can be found in Ugaritic as well: so, for instance, in the *Ba'al* cycle (Gordon, 137:37), where we find *argmn//mnh* (= 'offering', 'tribute').⁴¹ For knowledge of Near Eastern trade in purple and the various terms designating it the reader is referred to the relevant works by Goetze, Landsberger, Thureau-Dangin, Veenhof, Gradwohl, and recently M. Elat.⁴²

2.2.6 Tur-Sinai equates $\sqrt{\text{רָקַם}}$ with $\sqrt{\text{רָגַם}}$, and **אַרְגָּמָן** with **רָקְמָה**.⁴³ Traces of a common origin might be found in **שֵׁשׁ בְּרָקָה** (Ezek. 27:7a); **לְרָקְמוֹת תֹּבֵל לְמֶלֶךְ** (17:3); and especially in **אֲשֶׁר לֹר הָרָקְמָה** (Ps. 45:15), **רָקְמָה...רָקְמָה יָיִם...שָׁלַל** (Jud. 5:30), and **רָגְמָתָם** (Ps. 68:28). Nevertheless, even if the two lexemes share an ultimate common origin, the actual slot each occupies within biblical Hebrew is distinct from the other's: while **אַרְגָּמָן** has come to denote (by a narrowing shift) a certain type of dyed wool, **רָקְמָה**

still refers to multi-coloured cloth.⁴⁴

2.2.7 To conclude: from the colour point of view, אֶרְגָּמָן falls under the superordination of אֶדְמִים⁴⁵ although it denotes more than one specific shade. Thus, the author of the Temple Scroll writes אֶרְגָּמָן אֶדְמִים (sic!), so as to exclude those shades that are not typically 'red'.⁴⁶ תְּכֵלֶת encompasses a colour scope running from heliotrope to deep-sea blue to violet or even green,⁴⁷ which is better defined by parallel non-Hebrew terms than by the Hebrew terms or contexts themselves.

2.3 'WHITE' TEXTILES - שֵׁשׁ, בּוּץ, חוּר, פְּרָפֶס

2.3.0 The lexemes grouped under this heading refer to certain types of cloth of various natural fibres, which have two qualities in common - they are expensive and they are cleaned/bleached, although no colouring additives are applied to them. Hence, they fall under the blanket designation פְּגָדִים לְבָנִים (Qoh. 9:8),⁴⁸ but their other aspect, that of 'type of cloth', is as typical as the typical colour appearance.

2.3.1 The diachronic difference between the earlier שֵׁשׁ and the later בּוּץ, both denoting 'fine undyed linen', has been well established by A. Hurvitz.⁴⁹ The terms differ in etymology, that is, should be seen against separate cultural - geographical circumstances as well as chronological factors, although the identity of the product referred to seems not to have changed. שֵׁשׁ is of Egyptian provenance,⁵⁰ while בּוּץ is of properly Semitic origin and continues to be vital in MH and in Aramaic, through which it passed into Greek and other European languages.⁵¹ Recent attempts to establish a Sanskrit or Egyptian provenance for בּוּץ are far from convincing.⁵² Moreover, a 'white' denotation - even if secondary - is apparent. Cognates are to be found in Arabic 'abyaḍ' = 'white'; Heb. כִּיץ, ⁵³ and Akk. *piṣū*, *pasū* = 'be white', 'colourless', and 'peṣū' = 'white', 'colourless', ⁵⁴ the latter as modifier for 'wool' and 'clothes', ⁵⁵ as well as lexemes referring to other entities. Therefore בּוּץ, or more properly *byḏ*, originally evoked a colour quality identical or similar to that covered by לָבָן in biblical Hebrew.

Another equivalent to שֵׁשׁ - this time a synchronous one - is כָּתָן, which is understood as a 'white linen material' too. Such is the employment of the lexeme in the P sources (Ex.) which describe

the priestly garments.⁵⁶

2.3.2 חור is peculiar to the book of Esther. In 1:6 we have בלבוש מלכות תכלת וחור...; and in 8:15, ...כרפס ותכלת...בזבז וזאגמן. If we disregard כרפס for a moment (see below, 2.3.3) - for it seems to denote roughly the same entity as חור, or at least the same colour; is lacking in 8:15; and disturbs the inner balance of the double barrelled pairs - we are left with the formula חור + בזבז + תכלת + זאגמן, which refers to expensive 'white'/'purple' cloth symbolizing royal splendour, power, and authority. חור, then, is a synonym - at least from the aspect of its colour - of בזבז,⁵⁷ probably used here for literary/stylistic reasons. Further, the personal name חור, perhaps also חורי and חורי, were quite popular throughout the biblical period.⁵⁸ If חור - 'cloth', חורי (Isa. 19:9), and these personal names are all חור-derivative, then we must assume that חור originally featured in Hebrew stock but was later rejected as an uneconomic doublet of לבן, leaving traces only in nomenclature and technical terms (חורי, חור).⁵⁹ The renewed popularity of חור through a growing Aramaic influence facilitated the return of חור as an allosemantic of בזבז, but only in this isolated case. Meanwhile שש has supplanted חור, and חור is of no real significance outside our formula.

2.3.3 כרפס (Esther. 1:6 - כרפס ותכלת) came to Hebrew as a loan from Sanskrit through Persian⁶⁰ together with the product ('cotton') carrying the same name, which was first brought to the Near East from India by Sennacherib.⁶¹ Within our context it functions as a gloss or synonym to חור (cf. above) - in Sanskrit *karpās* signifies 'natural', 'undyed cotton',⁶² and this seems to be its meaning within the present context. No wonder, then, that it was not accepted as a general designation for 'cotton' in MH, but was dropped in favour of צמר גפן.⁶³

2.4 MULTI-COLOURED TEXTILES

2.4.1 פרמין

Ezek. 27:24 - בגדוני תכלת ורקמה ובגדוני פרמין

פרמין is a loan from Assyrian *birnu* - 'multicoloured, variegated' cloth, probably woven of threads differing in hue,⁶⁴ not dyed afterwards.⁶⁵ For general considerations concerning *birnu* cf. Landsberger's definitive article.⁶⁶ Appropriately, פרמין occurs together with תכלת and רקמה;⁶⁷ if an analogy is to

be drawn, it should be deduced that **בְּרָמִים**, like the other two items, was quite valuable.

2.4.2 **רִקְמָה**, **רִקְמָה**, and related lexemes.

רִקְמָה (Qāl part. functioning as an epithet noun) and **רִקְמָה** are widely distributed, appearing throughout the OT from the age of the Judges onwards. From the cognates supplied by the dictionaries⁶⁸ - in Arabic, Ethiopic, Aramaic, and Syriac - it seems that originally the reference was to a 'many coloured object', or to 'make a thing many coloured by engraving, drawing, writing, or brodering'.⁶⁹ Thus we have not only **בְּגָדֵי רִקְמָה** - and that especially in Ezek. (16:10, 13, 18; 26:16, for garments worn by high officials of Tyre; 27:7 - sailcloth; 16, 24; Ps. 45:15) and **מַעֲשֵׂה רִקְמָה** (Ex. 26:36, 27:16, etc.) = 'coloured weave' - but also **רִקְמָה** = 'coloured feathers' (Ezek. 17:3) and 'coloured' = mosaic pebbles (1 Ch. 29:2).⁷⁰

The basic 'multi-coloured' notion occurs in post-biblical language; and in Tal. Bab. Shabb. 107b. (in a discussion of **חֲבֵרֵי חֲבֵרֵי** and **חֲבֵרֵי חֲבֵרֵי** of Jer. 13:23) we read, **דְּקָאֵי רִקְמֵי וְרִקְמֵי הָאֵי וְנִמְרַח חֲבֵרֵי חֲבֵרֵי נִמְרַח גּוּוֹנִי מִבְּעֵי לֵיהּ** ... **חֲבֵרֵי חֲבֵרֵי** and **גּוּוֹנִי** are understood to refer to '(multi)coloured surfaces' - thus in Jewish Aramaic but probably applicable to Hebrew, as the latter seems to carry the basic notion common to the cognates.

The well-established status of **רִקְמָה** in the language may be inferred from the existence of the name **רִקְמָה**, which serves as a personal name⁷¹ as well as a toponym.⁷²

2.4.3 To conclude: **רִקְמָה** and **מַעֲשֵׂה רִקְמָה**(P),⁷³ the regular Hebrew terms for denoting 'multi-coloured cloth', stem from a root signifying 'multi-coloured appearance'. As for the **בְּרָמִים**, since it occurs in a context which contains **רִקְמָה** as well, and since the two lexemes function as synonyms within their context, we conclude that they are equivalent in reference, and that the motivation for loaning **בְּרָמִים** could have been merely stylistic.⁷⁴

E.3 COSMETIC PREPARATIONS

3.0 Biblical information concerning cosmetic preparations is scanty. פור is mentioned twice (2 Ki. 9:30, Jer. 4:30).¹ A verbal $\sqrt{\text{כחל}}$ occurrence - פחלת עיניך (Ezek. 23:40) - again refers to eye make-up. A problematic third instance is משקרות עינים (Isa. 3:16).

The questions concerning the activities referred to and/or the materials used can be answered by utilizing the cognates - especially in MH and Aramaic - and knowledge of ancient Near East customs. The answers, at least in the cases of פור and $\sqrt{\text{שקר}}$, are not unambiguous. The colour effect, however, is not inherent in the term but implied - the end product, so to speak, of the process.

3.1 פור, $\sqrt{\text{כחל}}$

Gradwohl rightly rejects a 'red, reddish' reference for פור on grounds of common sense (*vs.* etymology).² Rabin³ goes one step further towards an actual identification by stating that the components of eye-paint in ancient Egypt were apparently different from those used in Palestine - hence Lucas's objection to the identification of פור as 'stibium'⁴ is not applicable to our case.

Whether antimony (in Arabia),³ stibium,⁵ or arsenic (Babylonia),⁶ פחל is a pulverized powder whose effect is to blacken the area around the eyes to which it is applied.⁷ As such it is used even today. Rabin claims that פור should therefore be recognized as the semantic equivalent of פחול, פוחל ($<\sqrt{\text{כחל}}$), term whose etymology and extra-linguistic identity is much more transparent,⁸ and whose distribution is wider (albeit in post-biblical texts). The equation was already made by Ibn Janah and Qimhi.⁹

3.2 $\sqrt{\text{שקר}}$ Pi.

Within its context משקרות עינים (Isa. 3:16) implies 'ogle, look around'.¹⁰ Gradwohl,¹¹ following the Midrash, suggests that we relate our instance to MH סיקרא + $\sqrt{\text{שקר}}$ - 'to paint with Siqrā'.¹² Unless we assume that Siqrā is not necessarily 'red paint', or that already in bib. Hebrew $\sqrt{\text{שקר/שקר}}$ was expanded to denote 'paint(face)', 'make-up' in general, Gradwohl's suggestion is not acceptable. The chemical composition of סיקרא itself is far

from certain: fucus, minium, or ochre - all used for achieving a 'red' effect - have been suggested.¹³

Within MH itself, it seems, there are two homophonous $\sqrt{\text{סִקֵּר}}$ sequences: the one from which סִקְרָנוֹת - 'looking, ogling' → 'curious' - is derived; and a second one, which looks like a denominative of the Aramaic סִיקְרָא . Thus we might assume that $\text{מִשְׁקֵרוֹת עֵינַיִם}$ belongs to the first sequence. This does not necessarily imply that the two $\text{סִקֵּר}/\text{שׁ}$ roots are etymological homonyms. Ochre or iron oxides were used for make-up purposes in Egypt,¹⁴ and were probably known outside Egypt too; bib. Hebrew, though, lacks a name for that preparation. Later on, through the Aramaic סִיקְרָא , the sequence was developed along different lines, that is, $\sqrt{\text{סִקֵּר}}$ Qal and Pi., meaning 'to paint with Siqrā'. The latter, however, is diachronically secondary, reborrowed, and semantically distinct from bib. Hebrew $\sqrt{\text{שִׁקֵּר}}$, which has its continuation in MH too.

E.4 DYEING AGENTS AND PIGMENT SOURCES

4.1 פואָה (madder), כּפֿר (henna), and כּרֶכֶם (saffron) are known as multipurpose dyeing agents from post-biblical Hebrew¹ as well as from other extra-biblical sources.² Although the information supplied by those sources may be applicable to biblical times, there are only small hints in the OT itself for such dyeing practices. פואָה (*Rubia Tinctorum*, 'madder') is registered only as a personal name.³ כּפֿר (henna)⁴ is mentioned twice (Song. 1:14, 4:13) or perhaps three times (7:12, but cf. BH³). As Zohary points out, it is the fragrance of כּפֿר that counts here: we cannot infer that the use of henna as a colouring agent was known to the Israelites at this stage.⁵ כּרֶכֶם ('saffron', *Crocus Sativus*)⁶ occurs only in Song. 4:14, within the 'fragrance' context of the previous term. It is a loan from Sanskrit, denoting a product imported from India.⁷ Again, there is no evidence of using כּרֶכֶם for dyeing in biblical times. In post-biblical times, however, it was locally cultivated and used for that purpose.⁸

4.2 שֶׁשׁ (Jer. 22:14; Ezek. 23:14).

מֶשֶׁחַ בְּשֶׁשׁ (Jer. 22:14) - the context defines שֶׁשׁ as a paint of some sort. The Akk. cognate points to a 'red' signification. Gradwohl and the Dictionaries define it as 'minium, red lead'.⁹ However, in Egypt red pigment was produced of ochre from the pre-dynastic period.¹⁰ The Aramaic טַמְמָנִיָּה - from טַמְמַן, originally perhaps 'arsenic, orpiment' - was expanded to denote 'painting agent' in general, hence is of no value for our שֶׁשׁ. It seems possible that שֶׁשׁ is the earliest equivalent of the later attested טַרְקָה, used for make-up, painting and writing.¹¹

E.5 WRITING MATERIALS

As in the preceding sections, the information is poor and the colour reference obscure, especially when compared with the material available in MH sources - for instance Mish. Giṭṭ. 2:3, בכל כותבין בדין בטם בסיקרא ובקומוס ובכל דבר שהוא לקימא. Painting materials of all colours of the rainbow have been found in Egypt of the pre-dynastic period (5000-3000 B.C.) onwards. The pigments are mainly mineral based, but some are vegetable based.¹ Egyptian ink, according to Lucas, was either red (iron oxide) or black (carbon, charcoal, or soot).²

Bib. דִּילֹ (only Jer. 36:18) was apparently black, at any rate dark.³ שֶׁשֶׁר, once mentioned as used in monumental writing (Ezek. 23:14) and once in painting (Jer. 22:14), is 'minium', 'red lead',³ or 'red ochre'; for the identification with סֶרֶק cf. 4.2 above.

The third possible member of the series - שֶׁרֶד (Isa. 44:13) - is interpreted by Koehler⁵ as 'reddish paint' (of iron oxide base). Gradwohl concludes that the context is not definitive, and that therefore the meaning should be left undecided.⁶ I think that his conclusion is valid.

E.6 WHITEWASH, PLASTER

גֵּר = 'chalk', 'lime' - Isa. 27:9.

Bib. Aramaic: Dan. 5:5

שֵׁיד = 'lime, whitewash' - Isa. 33:12; Am. 2:1.

Dt. 27:2, 4.

6.2 גֵּיר* The occurrence in Isa. 27:9 - בשומרו כל אבני מזבח כאבני - stresses the fragile quality of chalk, not its colour. On the other hand, Dan. 5:5 - וכתבן לקבל נברשתא על גירא דכחל - היכלא די מלכא - can be translated "on the plaster of the palace wall" (NEB), or even 'on the whitewashed wall of the King's Palace'.¹ The colour connotation here is acceptable. It seems that גֵּיר* is an Aramaism in bib. Hebrew;² as MH shows, it remained in the language as a designation for the mineral, but not much more than that.³

6.3 שֵׁיד. In MH סִיד has come to denote 'whitewash' - hence the derived Qal and Pi. verbs, סִיד, and the idiom סִיד ההיכל, one of the criteria for defining degrees of 'whiteness'. Further, we have a clear סִיד/שֹׁחַר contrast in M. Sukk. 4:9 - the two cups (for libation) שֶׁל־סִיד היו אלא שהיו משחרין מפני היין. As for bib. Hebrew, no direct colour connotation is contained in Isa. 33:12 or in Am. 2:1.⁵ The allusion, if any, seems to come about by free association. The crux of the picture is excessive cruelty (Am.) and quick destruction (Isa.). On the other hand, Dt. 27:2, 4 imply a process of plastering/whitewashing the altar stones so that they become uniform in exterior colour and suitable for writing upon (v.3). Still, the evenness of texture might be the more important factor, which means that the (inherent) colour property is not evoked by the biblical term.

F. INDIRECT COLOUR CONNOTATIONS

F.0 This section lists lexemes which contain etymological, phonetic, or semantic links to known and/or otherwise supposedly lost Hebrew colour terms, but are not colour terms *per se* - their chief function within the language system is not to signify or evoke a colour sensation (sections F.1 - F.3 below). In addition, a short summary will present names of items/objects which are characteristically associated with a certain colour appearance (section F.4 below). The internal arrangement follows the method adhered to throughout this study.¹ I would like to stress that in most cases of the lexemes cited below - and especially in the case of personal names and toponyms - it is extremely difficult to establish a satisfactory etymology. Consequently, their phonetic links with known colour terms are many a time dubious or conjectured. On the other hand, the fact that generations upon generations of speakers and readers looked for or saw the 'colour' link, even elaborated it for various purposes, is quite meaningful, and certainly easier to detect than elusive etymology of the regular phonetic kind. To put it differently: the data supplied by folk etymology is more readily available than any other. Hence, unless new material concerning each lexeme can be added to existing literature, no discussion will be attempted. The reader can find references to representative or sample opinions and prevalent views in the notes.

F.1 PROPER NAMES

1.1 Personal and Gentilic Names

1.1.1 Under אָדָם

אָדָם² - Gen. 25:30, (הָאָדָם הַזֶּה...עַל כֵּן קָרָא שְׁמוֹ אֶדְוֹם), and more = Esau; also אֶדְוֹם (Dt. 24:8), אֶדְוֹמִים (2 Ch. 25:14), אֶדְמִיִּים (1 Ki. 11:17), אֶדְמִיּוֹת (11:1). For the wealth of biblical and post biblical word play upon אָדָם, אָדָם, and דָּם cf. Zakovitz.³ Was it originally the name of a God?⁴ and cf. עֹבֵד אֶדְוֹם (2 Sam. 6:10).⁵ It is also the name of the nation and of the land of Edom, conceived of as named after the Great Father. Alternatively, is there a connection with אָדָם through the 'red rock' appearance of Petra and its environs?⁶ Otherwise, the name may be derived from $\sqrt{\text{adm}}$ = 'be pleasant', as is the meaning of the root in Ge'ez.

While the etymology is uncertain, the literary-phonetic similarity is well established.

אִמּוֹץ - Isaiah's father, Isa. 1:1, etc.⁷ Otherwise, - from $\sqrt{\text{אמץ}}$ = 'be strong', or a shortened theophoric name (cf. (אִמְצִיָּהוּ)).

חִכְלִיָּה - Neh. 1:1, 10:2.⁸ Otherwise, a theophoric element preceded by $\sqrt{\text{חכה}} + \text{ל}$ ⁹

חִמּוֹר - Gen. 33:19, ch. 34 (9 times), and more; the father of Shechem, after the term for the common ass - from 'reddish', 'greyish-red'.¹⁰ Alternatively, from $\sqrt{\text{חמר}}$ - 'weight, load'?¹¹

זָרַח (Gen. 38:28-30) is linked by folk etymology and word play to שָׁנִי and אֲדוּם, and to the concept of 'bright colour'.¹² Gradwohl accepts the word play as a reflection of an authentic etymological link;¹³ this, however, is shown by Landsberger to be incorrect.¹⁴ Other $\sqrt{\text{זרח}}$ derived names are זָרַח, son of Re'uel;¹⁵ זָרַח, father of Yobab¹⁶ (both in Edomite genealogies); זָרַח, son of Shimeon;¹⁷ son of Gershon the Levite;¹⁸ זָרַח the negro (הַכּוֹשִׁי);¹⁹ the gentilic הַזְּרַחִי;²⁰ the theophoric זִרְחִיָּה²¹ and זִרְחִיָּה.²²

שָׁמַם - a Levite (1 Ch. 24:27), also designating a stone.²³ Probably a loan from Akkadian, where *sāmu* is 'dark red', *sāmtu* - Carnelian.²⁴

הַחִלְעִי, son of פִּזְיָה (kermes, madder);²⁵ הַחִלְעִי, the Hittite,²⁶ also as part of the toponym הַר עֶפְרוֹן,²⁷ and עֶפְרָה.²⁸ Together with עֶפְרָה ('gazelle') and עֶפְרָה (also a toponym),²⁹ עֶפְרוֹן is considered by some to have originated in an $\sqrt{\text{עפר}}$ sequence which in Arabic has a 'reddish-white' reference³⁰ and is perhaps also the base of עֶפְרָה.³¹

1.1.2 Under לָבָן

לָבָן - Jacob's father-in-law, 52 times in Gen. Originally the old Assyrian moon god.³² Note the covert ironic word play upon the name in Gen. 30:34-37.³³

לִבְנָאָה - n.pr.m. Ezr. 2:45; Neh. 7:48,

לִבְנִי - Son of Gershon, also family name.³⁴ A reference to the colour of the body?³⁵

צֹחַר - Father of Efron; a son of Shimeon; of Judah.^{36,37}

Interestingly, both names of father and son - צֹחַר, עֶפְרוֹן contain colour allusions.

חֹרִי, the name of five different persons,³⁸ one of them a Midianite (Num. 31:8, Josh. 13:21); חֹרִי;³⁹ חֹרִי;⁴⁰ and חִירָה?⁴¹ - all seem to be based on $\sqrt{\text{חר}}$, the interdialectal Aramaic

equivalent to $\sqrt{\text{לבר}}$. If so, they confirm the view that $\sqrt{\text{חור}}$, originally of Hebrew stock as well, was dropped in favour of $\sqrt{\text{לבר}}$, and later partially restored through Aramaic influence.⁴²

עֵיבֵל - Gent. and n.pr.m., see הר עיבל in the next section (1.2.2 below).

1.1.3 Under שחור

ע(ו)רב - ⁴³ from עורב = 'raven', 'crow'; with Arabic, Akk., Aram., and Syr. cognates of a 'be black' connotation.⁴⁴

קדר - gentilic and ancestral name of Arabian nomads.⁴⁵

A comparison with שחור proper is to be found in Song. 1:5, שחורה. See also קדרו , (wady), and MH קדירה = 'pot' (blackened by fire), bib. Heb. פִּרְיֹר.⁴⁶

1.1.4 Others

רָקֵם - a Midianite ruler, two Israelite individuals,⁴⁷ and a town within the Benjamin area⁴⁸ - cf. רָקֵם, רָקֵמָה. A possible explanation for the name may perhaps be surmised by assuming a shift from 'multi-coloured appearance' to 'splendour', 'beauty' - which cannot be ascertained from existing lexical sources.⁴⁹

1.2 PLACE NAMES

1.2.1 Under אדם

אֲדָם related toponyms are probably אֲדָם (1.1.1) and מַעֲלֵה אֲדָמִים (Josh. 15:7, 18:17), Arabic *Tal'at ed-dam*.⁵⁰ On the other hand, אֲדָמָה (Gen. 14:2), אֲדָמָה (Josh. 19:13) and אֲדָמִי הַנֶּקֶב (Josh. 19:33) are directly related to אֲדָמָה = 'ground, land, earth'; for the possibility of a link between אֲדָמָה and אֲדָם see below, 2.1.1, p. 161. נֹחַל שִׁירָק (Jud. 16:4)⁵¹ from שִׁירָק,⁵² choice vine of 'red' = 'dark' grapes.⁵³ Eshel suggests that the place was named after the vines grown in it.⁵⁴ מִשְׁרָקָה in Edom⁵⁵ - Like אֲדָם itself, with connotations of 'redness' (cf. אֲדָם, 1.1.1 above). גִּבְעַת הַחֲכִילָה (1 Sam. 23:19, 26:1, 3)⁵⁶ - a 'dark' hill? Cf. חֲכִילָה, חֲכִלְלוּת, חֲכִילִילי עֶפְרָה = *et-Tayyibeh*.⁵⁸ הָר עֶפְרֹן⁵⁷

1.2.2 Under לבן

לָבֵן (Dt. 1.1) - see לָבֵנָה (Num. 33:20, 21). לָבֵנָה - two cities of this name are known: one in South-West Judah, in the plain,⁶⁰ and the other - a station in the Wilderness = לָבֵן above.⁶¹ לָבֵן - Modern *Lubban*, near Shiloh;⁶² no connection with לָבוֹנָה = 'frankincense' apart from the homophony. לָבֵנוֹן - 70 times.⁶³

שִׁיחֹר לְבִנָּה - in Asher (Josh. 19:26). While שִׁיחֹר usually designates the border of Egypt as demarcated by the delta or one of the branches of the Nile,⁶⁴ here it denotes a river. Aharoni identifies it with the Kishon river and לְבִנָּה itself with *Tel Abu Huwam*, while Mazar - with *Ṣalmona*.⁶⁵ שִׁיחֹר itself is usually not considered an offshoot of שָׁחַר = 'dark, black', but the appearance of both שָׁחַר and לְבָן sequences in the same compound name is striking.

In general, the question arises: is there a transparent connection between the colour term לָבָן and the toponyms that seem to belong with it etymologically? A. Cohen shows that there is, at least in the cases of לְבֹנָה (*Lubban*) - where the colour of the local earth that is used for pottery as well is whitish-yellow, and a neighbouring village is called *Huwwara* - and of לְבָנָה.⁶⁶ The same is probably true for לְבָנוֹן, from its snowy appearance,⁶⁷ cf. 'Mont Blanc'.

צָהָר (Ezek. 27:18). If it is not a direct colour denotation but a place-name (יִין חִלְבוֹן/צֶמֶר צָהָר, in a context of toponyms and ethnic groups and their commercial specialities), and if the place-name is not to be amended,⁶⁸ then the location has to be identified.⁶⁹ The 'colour' associations, especially with צֶמֶר, are unmistakeable. הָר עֵיבָל.⁷⁰ עֵיבָל, also a gentilic and proper name,⁷¹ is according to Fronzaroli of a North-Western Semitic root signifying 'bare, white'.⁷²

1.2.3 Under שָׁחַר

חֹרֶן (Ezek. 47:16, 18) - the Eastern part of the Bashan, modern *Jabl-ed-Druz*.⁷³ From a Yemenite cognate meaning 'black', after the colour of basalt?⁷⁴ נַחַל קָדְרוֹן,⁷⁵ east of Jerusalem; cf. קָדְרִי.⁷⁶ According to Gesenius, from the 'turbid' appearance of the water.⁷⁷

1.2.4 Under יְרוֹק

מִי הַיְרֵקוֹן (Josh. 19:46) - Perhaps through the vegetation of the marshes around the river.⁷⁸ יִרְקָעַם,⁷⁹ although usually not considered part of this sequence, might also belong here.

1.2.5 Others

רִיקָם, a toponym and the name of a Midianite ruler,⁸⁰ is the old name of Petra.⁸¹ In Josh. 18:27 it is designated as a Benjaminite locality. בֵּית נִמְרָה⁸² and מִי נִמְרָה⁸³ - Opinions cited

in BDB attribute נִמְרָה, at least, to our נִמְרָה,⁸⁴ after leopards (?) found in the place, or the striped or spotted appearance of it.⁸⁵ The etymologies suggested for מִי נִמְרָה are different.

F.2 COVERT COLOUR ALLUSIONS - POSSIBILITIES

This section contains material relating to lexemes denoting objects or concepts that are often linked to and/or derived from root sequences used - or once used - for signifying colour, whether in Hebrew or in cognate languages. Lexemes referring to precious stones and metals are here excluded and will be discussed below, section F.3.

2.1 Under אָדָם

2.1.1 אָדָם and דָּם, אָדָם, and אֲדָמָה are so similar phonetically that they absolutely demand paronomasia and speculative etymologization, in addition to the אָדָם from אֲדָמָה and עֶפְרָא (Gen. 2:7; וַיִּצְרֶה אֱלֹהִים אֶת הָאָדָם עֶפְרָא מִן הָאֲדָמָה, 2:19; 3:19; Ezek. 28:20; Zeph. 1:2-3) conceptual link which the Hebrew creation story shares with other Eastern myths. The עֶפְרָא-אָדָם אֲדָמָה (= 'red earth') - אָדָם series is strung together by Josephus, Antiquities.¹ אָדָם and דָּם are notably linked in the chiasmic formula (Gen. 9:6) שָׁפַךְ דָּם הָאָדָם בָּאָדָם דְּמוֹ יִשְׁפֹּךְ,² while אָדָם and דָּם are joined together in 2 Ki. 3:22, וַחֲמִים אֲדָמִים כָּדָם. Gradwohl correctly asserts that apart from the basic religious significance attributed to blood and to אָדָם as the colour of blood, no genetic link can be established.³ דָּם appears to be an original bi-literal. We might speculate that אָדָם is a morphological expansion of the basic stem to which first a specific colour value is attached and then the chromatic/saturation/brilliance aspects are widened, so that the original 'blood colour' sense remains only as a focus. If so, the parallel evidence of the cognates shows that this expansion occurred very early in the parent language. However, one cannot go beyond the realm of cautious speculation in this matter.

Similarly, a generation אֲדָמָה → אָדָם⁴ - even if the synonym עֶפְרָא and lexemes related to it, like עֶפְרָא = 'gazelle' and various proper names,⁵ might carry indirect colour allusions close to אָדָם - is impossible to establish beyond the literary-conceptual link attributed to the two lexemes. אָדָם and אֲדָמָה perhaps present a different case. אָדָם can be related to Arabic *adamat*^{un} = 'skin',⁶ and alternately to the Ethiopic /*ḏm* = 'be pleasant, good looking',⁷ which could represent a non-colour polysemic development within Hebrew itself.

2.1.2 Other lexemes linked to אָרִים subordinated terms are listed below.

שִׁרָק (Isa. 6:2; Jer. 2:21), שִׁרָקָה (Gen. 49:11), and שִׁרָקִיתָ (Isa. 16:8)⁸ are all named after the colour of the grapes = שִׁרָק.⁹ $\sqrt{\text{חמר}}$ ¹⁰ related terms are חֲמֹר 'wine' (Dt. 32:14, Isa. 27:2; Ps. 75:9 - cf. BH³), 'blood of grapes'. Although it is usually considered an offshoot of $\sqrt{\text{חמר}}$ = 'ferment',¹¹ this is by no means certain.

It is equally satisfactory to relate חֲמֹר to $\sqrt{\text{חמר}}$ = 'be red' (of some sort), together with Ibn Janah¹² and Qimhi,¹³ and as mentioned by Levias.¹⁴ Less doubtful is the 'red' element of חֲמֹר = 'ass' and יַחְמֹר = 'roe-buck' (Dt. 14:5; 1 Ki. 5:3). Ullendorff relates חֲמֹר to $\sqrt{\text{חמר}}$ = 'carry weight'.¹⁵ This, however, does not explain יַחְמֹר, which seems to derive from the same root. Furthermore, Gradwohl¹⁶ mentions the Spanish burro = 'ass'. When we consider that burro is probably derived from purros = 'red', and that other animals also have 'colourful' names (עֹפֶר, נֶמֶר), the comparison is quite relevant.

2.2 Under לָבָן

2.2.1 לָבָנָה (//חמה) = 'moon';¹⁷ לְבוֹנָה = 'frankincense'; לָבָנָה = *Storax officinalis* (Gen. 30:37, in a passage playing on 'לָבָן'); and even לָבָנָה = 'brick' and its derivatives - $\sqrt{\text{לבר}}$ Qal and perhaps מַלְבֵּן - all contain a transparent phonetic/semantic link to the basic lack of chroma/luminosity (→ purity) inherent in לבן.¹⁸

2.2.2 Others

בִּצִּיצָה, pl. בִּצִּיצִים¹⁹ - of fowl or snakes - is perhaps etymologically related to בּוֹי. ²⁰ זְכוּכִית (Job 28:17) = 'glass', from $\sqrt{\text{זכר}}$, see זָכַר, ²¹ שֹׁשֶׁן, ²² שֹׁשְׁנָה, ²³ שֹׁשְׁנַת העמקים - from Egyptian šsn, ²⁴ cf. שֵׁשׁ²⁵ = 'fine white linen'. The שֹׁשֶׁן is identified as *Lilium Candidum*, the שֹׁשְׁנַת העמקים as the *Narcissus*.²⁶ Both are predominantly white flowers. שִׁיבָה, שֵׁב $\sqrt{\text{שיב}}$ ²⁷ = 'be hoary, grow white or grey with age' → 'grow old' (thus סָב etc. in MH). The colour notion is especially pronounced in passages like שִׁיבָה זָרָה בּוֹ (Hos. 7:9); עֲטִית חֲפָאֵרָה שִׁיבָה (Prov. 16:31); and חָדַר זִקְנִים שִׁיבָה (Prov. 20:29). On the other hand, the colour allusion is insignificant in the idioms שִׁיבָה טוֹבָה = 'great old age' (Gen. 15:15, 25:8; Jud. 8:32; 1 Ch. 29:28), or

הוריר את שִׁיבְתוֹ בַּשְּׁלוֹם = 'let a person die a natural death' (Gen. 42:38; 44:29, 31; 1 Ki. 2:6, 9 - בָּדָם instead of בַּשְּׁלוֹם in the last instance = 'cause a person to die by violence'.)

2.3 Under שָׁחַר

2.3.1 שְׁחִירוֹת (Qoh. 11:10) = 'young maturity', from dark colour of hair; שָׁחַר (Joel 2:2) = 'darkness';²⁸ and שְׁחֹר (Lam. 4:8) = 'darkness/blackness'.²⁹

2.3.2 Some חֲשֵׁךְ usages, notably מִשְׁחֹרֶה (Lam. 4:8) and perhaps also וַתַּחֲשֵׁךְ הָאָרֶץ (Ex. 10:15),³⁰ are so intense that they seem to signify blackness, which is an intensified form of darkness.

√קָדַר = 'be dull, dark', when not in conjunction with אָבַל = 'mourn' (Jer. 4:28) or in the derived sense of 'mourn',³¹ also conveys a sensation that recalls the one referred to by שָׁחַר (so also קָדְרוֹת, Isa. 50:3; קָדְרָנִית, Mal. 3:14). In the OT almost half of the √קָדַר occurrences relate to loss of light from the sky (Jer. 4:28), sun (Job 30:28³²), or stars (Ezek. 32:7). שָׁחַר is never used in such a context. Perhaps we may surmise that √קָדַר and √שָׁחַר are partially synonymous in reference, although different in regard to application and context.³³

בְּמִרְיָ - Job 3:5, with חֲשֵׁךְ and עֲנָה as parallels - the context and the Syriac cognate point towards a 'blackness', 'darkness' denotation.³⁴

צִלְמוֹת - mainly in Job (9 times)³⁵ and Ps. (4 times)³⁶ but also in Isa., Am., and Jer.³⁷ The traditional pointing reads צִלְמוֹת, 'shadow of death'; this meta-analysis was accepted by the ancient Versions and older commentators. Modern research, however, has shown that the correct form is צִלְמוֹת - from √צָלַם - with cognates in Akk., Ethiopic, Arabic, and possibly Ugaritic,³⁸ all with a 'be black/dark' reference. For a survey of the material the reader is referred to S.M. Paul's article.³⁹

פָּאִירוֹ (Nah. 2:11; Jo. 2:6) and פָּרִיר (Num. 11:8; Jud. 6:19; 1 Sam. 2:14) = 'pot'. I agree with Gradwohl's conclusion that the two are basically identical.⁴⁰ On the other hand, his interpretation of קָבְצוּ פָּאִירוֹ = 'were scared' (in a context of war) is not adequate, perhaps because he tries to establish a transparent relationship between the components of the idiom and the idiom itself. This can hardly be done; a better result is achieved, I think, by comparing the idiom to others which contain similar elements, that is, חֲשֵׁךְ מִשְׁחֹרֶה תֹּאֵר (Lam. 4:8),

perhaps also עוֹרֵי שָׁחַר מְעֵלִי (Job. 30:30), and certainly to the MH השחירו פניהן כשולי (T.Bab.Shabb. 30a) and כשולי הקדירה (T.Yer.Hag. II, 77d).

2.4 Under זָרוֹק

2.4.1 זָרוֹק, זָרוֹק, זָרוֹק are discussed under זָרוֹק, Primary Terms.⁴¹ שְׁדָפוֹן וִירְקוֹן⁴² and once with פָּנִים⁴³ - יִרְקוֹן - 5 times in the pair - features regularly in MH too.⁴⁴ Usually יִרְקוֹן is defined as a wheat disease ('mildew', 'rust') caused by bacteria. Hare'ubeni discusses the possibility that by equating שְׁדָפוֹן⁴⁵ and יִרְקוֹן one can discard the 'disease' notion, and interpret: too much rain (Am. 4:7, חֲלָקָה אַחַת הָמָטָר, causes יִרְקוֹן, yellowing of the ears; while little or no rain (וְחֲלָקָה אֲשֶׁר לֹא תִמְטִיר... חִיבֵשׁ), together with a drying wind, causes שְׁדָפוֹן (v. 9).⁴⁶

2.4.2 רַעֲנָן - 19 times,⁴⁷ in Dt., Ki., Jer., Ezek., Isa.II, Hos., Ps., Job, Song., and Ch. Gradwohl accepts majority ruling on this matter, which considers רַעֲנָן to be 'fresh, wet, luxuriant', not a colour term.⁴⁸ So lately Morag, who connects the root with Arabic رَعْنٌ and suggests a basic sense of 'high, lofty'.⁴⁹ Nevertheless, the fact that most occurrences are in syntagms containing either 'tree' or other references to vegetation should leave the question open.

F.3 METALS, GEMS, STONES¹

3.0 The Ancients did not assign names to gems according to their mineral combination but according to external properties, mainly brilliance and colour or the strength and toughness of the stone.² Hence confusion in identification and translation of biblical terms for precious and semi-precious stones was inevitable. Add to that the tendency to transfer names of such rare commodities through countries and languages together with attempts at etymologizing within the target language, and identification is made even more difficult. Thus the Versions and sources are not trustworthy.³ The same applies to Num.Rabb.2, which describes the stones and typical colours of the Twelve Tribes.⁴ The comparative table of the jewels prepared by Shalem⁵ illustrates these points succinctly, and is therefore reproduced here.⁶

LXX	Mid.Rabb.	Syr.	T Yer.II	T Yer.I	T Onk.	OT
סרדיון	שדרנגין	סימקא	סמקתא	סימיקתא	סמקן	אדם
טופזיון	טומפוזין	ירקא	ירקתא	ירקתא	ירקן	פטרדה
סמרגדוס	דיקינתון	ברקא	ברקדנא	ברקתא	ברקן	ברקת
אנטרקס	ברדינון	צדידא	כדכדנא	איזמורד	איזמורגדין	נפך
ספירוס	סאפירינון	ספינא	סימפולינא	ספירינון	שבזיז	ספיר
	איזמרגדין	נקעתא	עין עגלא	כדכד	סבהלם	יהלם
ליגוריון	כוכלין	קנכנין	זוזין	קנכירינון	קנבריא	לשם
אכאטיס	אכאטיס	כדכדנא	בירולין	ערקין	טרקיא	שבו
אמטיסטוס	הימיסיון	עין עגלא	זמרגדין	עין עגלא	עין עגלא	אחלמה
כריזוליטוס	קרואטסין	תרשיש	כרום ימא	כרום ימא	כרום ימא	תרשיש
				רבא		
בריליון	פראלוקין	ברולא	בולחא	בירליות חלא	בורלא	שהם
אונוכיון	מרגליטס	ישפה	מרגלא	מרגנית אפנטורדין	פנטרי	ישפה

The lexemes which belong to our subject are those defining the gem itself by its colour, whether by using original Hebrew/Semitic stock or through a loan from the language spoken where the gem was imported from or through. Similarly, names for metals will be mentioned only if there are indications within the text itself of conscious usage of the term for conveying colour properties *per se*, or where a reference to colour is etymologically inherent to the term.

3.1 Gems and Stones

3.1.1 **אַדָּם**,⁷ the most transparently constructed,⁸ is identified either as 'Carnelian' or as 'red ruby'.⁹ However, Carnelian is probably **שֹׁהַם**,¹⁰ a loan from Assyrian *sāmu*, *sāmtu*,¹¹ unless the latter designates another 'red' gem in Hebrew; that is, the reference within the target language does not necessarily have to correspond to that in the original language. In most Versions **שֹׁהַם** is identified as 'beryl'. **שָׁבֵר**, another 'red' gem (Versions: beryl, agate) is perhaps a loan from Assyrian too (so BDB and others) - cf. *aban sābi*, of the colour of uncooked ox's blood.¹² **פֶּדֶד**,¹³ tentatively identified as 'ruby' or another red stone,¹⁴ is variously understood on the basis of Hebrew **כִּדְדָר** = 'strike fire',¹⁴ Arabic **كَدْكَدَة** 'extreme redness', and Ethiopic.¹⁶ On the other hand, Rabin raises the possibility of a derivation from a place name.¹⁷ If this is accepted no colour significance can be attributed to **פֶּדֶד**. Finally, **אַחֲלֵמָה**¹⁸ is usually identified as 'amethyst' of 'reddish/brown' or 'wine' colour; the derivation from Egyptian *hmt* seems superior¹⁹ to the Hebrew-based etymologies from **חֶלֶם** = 'dream' or **חֲלֵמוֹן** (= colour of egg-yolk).²⁰

3.1.2 Opaque colour references can be traced for the following:

פִּטְדָה,²¹ yellow 'topaz' or 'chrysolite' (Aram.T from **יִרְקָה**) - perhaps from *pīta*, in Sanskrit 'yellow', 'golden',²² although Job 28:1 - **פִּטְדָה כֹּהֵשׁ** - assigns the gem an Ethiopian origin.²³

בִּרְקָה,²⁴ although previously linked to Hebrew **בִּרְקָק** - 'flashing', 'sparkling' gems (Aram. T) - is currently considered a loan from Sanskrit *markatu* and identified with 'green' stones such as 'emerald', 'malachite', or 'green beryl'.²⁵

נֶפֶר.²⁶ Following the Versions, it is variously identified as 'emerald', 'turquoise', 'ruby', or 'carbuncle'.²⁷ However, if it is the same as **אֲבֹנִי פֶנֶר** (Isa. 54:11; 1 Ch. 29:2)²⁸ then, as Qimhi says,²⁹ a 'black' stone is indicated, and this is supported by the Syriac **צִרְדִּיא**.³⁰ One of the dark gems - 'onyx' or a 'dark jasper',³¹ for instance - is a plausible identification.

3.1.3 Two stones were recognized as 'blue', 'turquoise', or 'green-blue'. These are **תַּרְשִׁישׁ**³² and **סַפִּיר**.³³ Passages like Ex. 24:10, **וַיֵּרְאוּ אֶת אֱלֹהֵי יִשְׂרָאֵל וַתַּחַח רִגְלֵי וַיִּכְמַעְשׂוּ לִבְנֵת הַסַּפִּיר וְכַעֲצֻם** וַיֵּרְאוּ אֶת אֱלֹהֵי יִשְׂרָאֵל וַתַּחַח רִגְלֵי וַיִּכְמַעְשׂוּ לִבְנֵת הַסַּפִּיר וְכַעֲצֻם the **הַסַּפִּיר**-made celestial footstool/chair in Ezek. (1:26, 10:1); the celestial wheels which are made of **תַּרְשִׁישׁ**

(1:16ff., 10:9ff.); and the Aramaic rendering of תרשיש as כרום (1:16ff., 10:9ff.); and the Aramaic rendering of תרשיש as כרום, 'colour of the sea'³⁴ - all these point away from the usual 'sapphire', 'topaz', or 'jasper' renderings. Qimhi rightly defines תרשיש as טובה ועינה כעין התכלת.³⁵ Thus ספיר could be identified as 'lapiz lazuli',³⁶ and תרשיש as 'turquoise' or another 'blue' stone.³⁷

3.1.4 שיש and the contracted form שש, which appears in post-exilic sources only,³⁸ were interpreted as 'marble' and understood to be light coloured, 'white' or 'yellowish' (cf. שש = בוץ).³⁹ On the other hand, they do not serve as colour indicators or substitutes. פהט (a hapax - Esth. 1:6, ופש), of Egyptian provenance, designates 'alabaster': both Egyptian and local alabaster ware were of white-yellowish colour.⁴⁰

3.2 Metals

Although gold can be processed to achieve various degrees of purity and colour,⁴¹ a typical 'gold' colour was apparently thought of as 'yellow' or 'yellow' tending to 'red'. Ezr. 8:27, וכלי נחשת מצהב... חמודות פצהב,⁴² is indicative. The etymology of חרוץ in Ug., Akk., and Phoenician; Arabic حُرْضِي, 'be yellow';⁴³ post-biblical Hebrew, Aramaic and Syriac חריע (= 'safflower', from its colour)⁴⁴ - are all connected to 'yellow' too, and so is biblical חרוץ (Ps. 68:14).⁴⁵ זהב - a synonym for חרוץ (Ps. 119:127), חרוץ (Prov. 8:19), and פז (Song. 5:11; Isa. 13:12)⁴⁶ - becomes a designation for 'blood stain' in MH and in Jewish Aramaic, thus preserving an indirect link with the most popular colour of the metal. Finally, כסף - 'silver', perhaps the 'pale metal',⁴⁷ - is not used in any 'colour' sense in bib. Hebrew, but is the basis for derived terms denoting 'pale' and 'become pale' in MH and in Jewish Aramaic.⁴⁸ However, from the etymological viewpoint, כסף cognates and/or inter-language equivalents sometimes have other denotations: thus Akk. *kasāpu*, Arabic فَطَسَ = 'break into pieces, tear', فَطَسَ 'silver', فَطَسَ = 'of silver'.⁴⁹ Cf., nevertheless, the Arabic etymological equivalent to Hebrew כסף, e.g. كَشَفَ and related terms. The basic meaning of the latter - 'discover, uncover, open up' - is perhaps connected to a basic sense of 'light', 'bring to light', 'throw light upon', which is common to the cognate sequences in both languages.

F.4 COMPARISONS AND COLLATIONS: OBJECTS/ITEMS EVOKED IN ORDER TO CONVEY TYPICAL COLOUR PROPERTIES.

4.1 For אֶדָם

דָּם = 'blood' - 2 Ki. 3:22 (water).

יַיִן = 'wine' - Gen. 49:12, Prov. 23:29 (eyes).

פְּוִלִימִים = 'corals' - Lam. 4:7 (complexion; or lips? cf. BH³).

שָׁנִי = 'crimson', 'scarlet cloth' - Isa. 1:18; Nah. 2:4 (מַחֲלָעִים; - sins, warriors).

4.2 For לָבָן

חֵלֶב = 'milk' - Gen. 49:12 (teeth); Lam. 4:7 (complexion);

Song. 5:12 (eyes?).

כֹּדֶלֶח = 'gum resin' - Num. 11:7 (Manna).

גִּדְּ = 'coriander' - Ex. 16:11; Num. 11:7 (Manna).

צֶמֶר (natural or bleached) = 'wool', Isa. 1:18; Dan. 7:9

(Aram.; hair).

שֶׁלֶג = 'snow' - Ex. 4:6; Num. 12:10; 2 Ki. 5:27 (all for consistency/texture, not colour); Isa. 1:18 (sins); Ps. 51:9 (sinner); Dan. 7:9 (Aram.; clothing).

4.3 For שָׁחֹר

שְׁחֹר = 'blackness', 'darkness' - Lam. 4:8 (skin, appearance).

כְּנֻשִׁי = 'African', 'dark-skinned person' - Jer. 13:23

(appearance of human skin).

קִדְרֵי אֹהֲלֵי = 'tents of קִדְרֵי' - Song 1:5 (complexion).

עֹרֵב = 'raven' - Song. 5:11 (hair).

4.4 For צָהָב

זָהָב = 'gold' - Ezr. 8:27 (copper); Zech. 4:12-14 (זָהָב as a poetical equivalent of oil, לִצְהָר).

כְּתָם פֶּזַע = Song. 5:11 (hair; referring to sheen and gloss, not to chromaticity).

4.5 For 'blue', the colour of the sky (no primary term in evidence).

סַפִּיר = 'lapis lazuli'? - Ex. 24:10; Ezek. 1:26, 10:1 (heavenly footstool/chair).

תְּרֻשִׁישׁ = 'turquoise'? (= 'sea colour') or another blue-green stone - Ezek. 1:16, 10:9 (heavenly wheels).

G. TERMS FOR SPECKLES, SPOTS, AND OTHER MULTI-COLOURED PHENOMENA.¹

G.1 This category includes:

a. A group of lexemes distinguishable by a morphological feature, the $\overline{pa}^{\sim}ol$ pattern. All the lexemes occur within the stories about Jacob and Laban's herds (Gen. 30:29-43; 31:4-18): $\overline{נִקְד}$ and $\overline{עִקְד}^*$ here only, $\overline{בִּרְד}$ also in Zech. 6:3, 6 (or horses). $\overline{נִקְד}$ and $\overline{עִקְד}^*$ serve as bases for derivatives as well.²

b. Various other terms, each denoting a visible entity whose characteristic is an uneven colour appearance (Sections 2.1, 2.2, and 2.3 below).

G.2 Miscellany.

2.1 Terms appearing in Gen. 30 (in addition to $\overline{נִקְד}$, $\overline{עִקְד}^*$, $\overline{בִּרְד}$ (* $\overline{בִּרְד}$)). $\overline{טִלְוִיָּא}$ - of 'spotted', 'variegated' sheep³ (Gen. 30:33, 35) - occurs in opposition to $\overline{נִקְד}$, $\overline{עִקְד}^*$, חוּם; no colour signification can be detected, though - Qimhi is probably right in saying that the difference between $\overline{נִקְד}$ and $\overline{טִלְוִיָּא}$ is in the size of the stain referred to.⁴ The related $\overline{מִטְלָאוֹת}$ = 'patched' ('sandals', Josh. 9:5) point to the same conclusion. $\overline{בְּמֹת טִלְאוֹת}$ (Ezek. 16:16) is usually interpreted according to the sense in Gen. 30.

$\overline{מִקְשָׁרִים}$ and $\overline{עֲטָפִים}$ (Gen. 30:41-42) are usually understood as carrying a 'strong'/'feeble' contrast.⁵ At first glance this interpretation seems satisfactory: thus, the story concludes, Jacob managed to breed strong stock. On the other hand, the semantic part-equivalence of $\overline{קֶשֶׁר}$ // $\overline{עִקְד}$ ('knot', 'bind'), together with the occurrence of $\overline{עִקְדִים}$ earlier in the same chapter, facilitate another interpretation. Similarly, although $\overline{עֲטָפִים}$, $\overline{בְּהֻעֲטִיף}$ (v. 42) are assigned to $\overline{עֲטָף}$ = 'be weak, faint', they may belong with a homonymic $\overline{עֲטָף}$ sequence⁶ which otherwise occurs only in Ps. 65:14 and 73:6. This sequence - denoting 'envelope, cover' - has an Ethiopic cognate which means '(a) cover', but also 'a web', 'texture',⁷ the latter being much more suitable for our context at least as far as $\overline{עֲטָפִים}$ is concerned - $\overline{בְּהֻעֲטִיף}$ is better understood as 'when (they) grow weak'. All in all, most of the terms relevant to our discussion are almost unique to our narrative (cf. חוּם). Therefore, one could perhaps hazard the conjecture that $\overline{מִקְשָׁר}$ and $\overline{קֶשֶׁר}$ here, or in the source-material underlying the story, originally signified

approximately the same as עֵקֶד*, while עֶטֶף* referred to the opposite notion of 'uniform texture'. This approach would mean that Gen. 30:41-2 is to be considered a distinctive substratum of the present narrative. And to conclude, the usage of עֶטֶף and בֹּהֶטֶף, albeit with different senses, could be viewed as a deliberate case of paranomasia.

2.2 Lexemes referring to skin areas which are distinct from the surrounding skin. Both בֹּהֶטֶף (Lev. 13:39) and בֹּהֶטֶת (Lev. 13, 8 times) denotes 'bright', 'shiny spots',⁸ set off by a differently coloured background. In the OT both appear in this context only; however, in MH and in Aramaic both are vital and productive.

חֲבֵרֹת - a hapax, Jer. 13:23,

וּנְמֵר חֲבֵרֹתָיו - הִיחָפֵךְ כּוֹשֵׁי עוּרָיו - refers to marks, stripes, or spots. The exact shape of these delineated skin areas, and even their colour, is dependent upon the identification of נְמֵר (see below).

2.3 נְמֵר (Isa. 11:6; Jer. 5:6, 13:23; Hos. 13:7; Hab. 1:8; Song. 4:8) and related lexemes. There is no agreement about whether נְמֵר is a 'tiger' or a 'leopard', although the name of the animal refers to the speckles on its skin.⁹ In bib. Hebrew we find toponyms which look as if they were related to the same consonantal sequence. These are נִמְרָה (Num. 32:3), בֵּית נִמְרָה (Num. 32:36; Josh. 13:27), מִל נִמְרִים? (Isa. 16:6). The latter, however, do not help in solving the problem. On the other hand, MH usage (Pi., Pu.)¹⁰ points to a 'spotted' reference. While this seems to exclude 'striped' or 'checkered' appearance, no further specification can be made on linguistic grounds beyond the notion that נִמְרָה refers to some kind of delineated shape. Alternately we might assume that the origin of נְמֵר is obscure, and that the signification נִמְרָה = 'of spotted/variegated appearance' is denominative and secondary.

2.4 General considerations.¹¹

Only two of the above mentioned lexemes can be assigned to superordinate terms with any certainty. These are בֹּהֶטֶף and מִתְהַרֵּץ (2,2 *supra*), which belong to the לָבָן dominated sector - from 'bright', 'shining', 'glossy' to 'white'. Otherwise, attempts to classify the actual colour or even the shape of the spots, speckles and stripes, from the ancient Versions onwards, are

less than convincing.¹² This evident confusion is the result of the lack of clarity concerning the references the terms supposedly carry. And no wonder: for the most part the latter are so rare and/or idiolectical as to be almost opaque. Nevertheless, one conclusion emerges: the various etymologies point more to the field of 'space/spatial arrangements' than to colour. Gradwohl's attempt at differentiating grades or sizes that *נֶקֶד*, *טָלוּא*, *בֶּרֶד** denote seems to be the best solution available for these lexemes.¹³ *עֵקֶד** has no clear colour signification, and the same applies to *חִבְרִינָה* and *נִמְר*. To sum up: mostly one can only discern the colour contrast *vis-a-vis* its environment. Still, this is a part of the colour sensation. As such it belongs to the periphery of the colour field, as well as to the spatial relationship field.¹⁴

H. APPENDIX: THE $\bar{p}a^C_{ol}$ PATTERN

H.1 The Proto-Semitic $\bar{p}a^C_{ul}$ — Heb. $\bar{p}a^C_{ol}$ ¹ pattern is utilized quite extensively for the construction of colour terms, especially those of the first three categories (primary, secondary, tertiary) but also for the terms denoting colour differences of spatial arrangements (עֲקֹד, נֶקֶד, בֶּרֶד*). The pattern is not an exclusively 'colour' one - it is used for generating lexemes which relate to phenomena from other areas of experience. The common denominator is, supposedly, that they all denote an 'indefinite external quality'.² Further, lexemes modelled upon it cannot always be defined as so-called 'adjectives' - thus הָאֲדָמָה הָאֲדָמָה הָאֲדָמָה (Gen. 25:30) and יָרוֹק (// מְרֻעָה, Job 39:8) definitely function as substantives. As in many other cases in Hebrew, the demarcation line between adjectival and nominal, and between syntactical surface structures (vs. deep structures) and the semantic significance applicable to any morphological pattern, is fairly fluid. Already the Medieval Jewish commentators and grammarians³ noticed that the basically Aristotelian division into 'parts of speech' or 'word classes' was not exactly suitable for the description of Hebrew (and of other languages as well),⁴ which created problems of definition. It follows, then, that if a member of the series אֲדָמָה, שָׁחֹר, צָהָב and so on is to be defined as *farbadjectiv* (Gradwohl), it is to be done with a qualifying statement, viz. that the ultimate criterion for classification is functional (= syntactical), not morphological. Hence, the pattern cannot be named משקל תארי צבעים unless we bear these comments in mind. The fact that it was utilized almost exclusively for generating new 'colour' lexemes in Modern Hebrew merely reflects an artificial conscious choice⁵ that is irrelevant for our data. On the other hand, in bib. Hebrew - as in MH - it is not exclusive. Other patterns can be resorted to, be they nominal or else verbal, even for the signification of a 'state' or 'quality' - cf. אֲדָמָה vs. אֲדָמָה, הֶלְפִינִי vs. לִבִּי, where no difference in deep structure can be discerned. Therefore, a rigid description of alternative surface structures as separate notional classes is not adequate.⁶

The lists below contain (in alphabetical order) biblical Hebrew data concerning the following categories of items:

- a. Colour lexemes constructed after the $pa^c\text{-}ol$ pattern.
- b. Other nominal/adjectival lexemes built upon the same model.
- c. Verb forms of the same pattern (the Qal theme).⁷

H.2 a. Colour terms

אֶדֶם, *אֶמֶץ, *בָּרֵד, יָרוֹק, נָקֵד, *עָקֵד, צָהָב, *צָהָר, *שָׁרֵק, שָׁחַר.

Total: 10 terms.

b. Other nominals

- i. Lexemes usually functioning as adjectivals (= noun modifiers).

אֵיס, אֶדֶד, גִּבָּה, מַחֵק, עֵבֶת, עֵגֶל, עֵמֶק, עֵנָג, עֵקֶב⁸,
עֵקֶב¹¹, קֵטָן¹⁰, קֵטָב¹¹.

Total: 13 lexemes.

- ii. Lexemes which usually function as nominals.

אֶגְדָּה, אֶלְמָה, *אֶסָף¹², אֶסְפָּה¹³, אֶפְדָּה¹⁴, אֶרְבָּה, גִּדְלָה, חִנְפָּה,
כְּבוֹדָה¹⁵, עֵרֵב?¹⁶, עֵרְפָּה.

Total: 11, one uncertain.

c. Verb forms

יָגַר, יָכַל (יָכוֹל), עָרַם?, קָטַן, שָׁכַל.

Total: 5 ground forms.¹⁷

H.3 Interpretation of Data

Even after granting that distribution of formal-morphological features - as much as that of lexical items - might be accidental, the evidence indicates that the pattern signifies a state or quality which is expressed either adjectivally or verbally. The purely substantive forms, on the other hand, are mostly f.; at least in some of the cases the lexemes seem to signify a variation of reference in relation to the basic m. form wherever this exists: cf. פָּבֹד — כְּבֹדָה — *אֶסָף — אֶסְפָּה — אֶפְדָּה — אֶדְדָּה . These then represent a secondary convergence from more than one basic pattern. Broadly speaking the pattern cannot be considered an exclusively adjectival one. Although four out of the five primary colour terms belong to this group, together with three subsidiary terms and three terms denoting speckles and spots (list a), the pattern itself, as we have seen, is not unique to this field.

H.4 The $*pa^c\text{-}al$ Pattern = Heb. $pa^c\text{-}al$ occurs in the colour field in three lexemes only - לָבָן (primary), יָרֵק (pre-primary or

indirect), and לְבָנָה (f., 'moon'; indirect).

There is another difference between לָבָן and the other two better-established terms (אֲדָמָה and שֹׁחַר): no Qal occurrences of the former are attested.¹⁸ Excluding the possibility that both features are a matter of random chance - and the non-existence of a Qal theme in MH is an indication that this should be done - the following conjectures are submitted. First, Berlin and Kay have shown, and to my mind conclusively so, that terms denoting 'black'/'white' usually evolve from 'dark'/'light' and are created in most languages as a synchronous contrasted pair,¹⁹ that is, the genesis of a colour notation involves at least a primary dichotomy.

The basic morpho-semantic contrast in biblical Hebrew is enhanced by being derived both from the differing root sequences employed and from the different patterns. Secondly, while the findings concerning the $\bar{p}a\bar{c}al$ pattern point to its relatively wide employment as a nominal/adjectival/verb base, most lexemes constructed upon the $\bar{p}a\bar{c}al$ pattern function as substantives, or at least 'epithet nouns'.²⁰ A cursory glance at the material presented in Bauer-Leander²¹ will ascertain this. Cf. the statement, 'Offers ist die Adjective Bedeutung sekundär, so in לָבָן²² ... יָרֵק'.²³ Hence, especially with לָבָן (and יָרֵק, יֵרֶק), the borderline between noun and adjective is so fluid that the only criteria for defining an actual occurrence is functional-syntactical rather than formal.

III COLOUR TERMS IN MH

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A. GENERAL

A.1 As we have seen, the density of terms in biblical Hebrew is far from satisfactory. So many gaps are left within the field that existing terms are extended over a very wide range of reference, to the extent that they may become semantically overloaded and thus not coherent or specific enough. Other terms are too sparsely documented to allow any definite conclusions. In short, the field does not appear as a well-developed segment of OT vocabulary.

The situation is different in regards to MH.^{1,2} Already in the Mishna/Tosefta and early Midrashim, and - to a greater extent - in the Talmudim, we find a field that is enlarged in scope and application (if not equally on all levels); much more discriminating and detailed in reference; quantitatively much more extensive; and in short, a far better reflection of realia and of technological practices than the picture gleaned from OT material. Undoubtedly this development is partly no development *per se*, but the result of the preservation of terms dictated by the types of material preserved mainly in Halachic literature. On the other hand, the quantitative and qualitative condition of the field as a whole must reflect a society which is technologically much more advanced than its counterpart in biblical times, a state of affairs that must influence the language used by the members of that society. Characteristically, it is the sector of painting, dyeing, and so on which contains the greater amount of new lexemes.

2. Our purpose in the present section is to demonstrate how existing lexical resources, when retained, were adapted and/or expanded by MH speakers in order to cope with changing conditions/periods. 'The vocabulary of MH is composed of the following elements: (1) Hebrew; (2) loan-words from Persian, Akkadian, Greek, Latin, and Aramaic'.³ Here we are mainly interested in the first category, namely, the application of various morpho-semantic processes to established OT consonantal sequences and the generation of new terms from that stock (whether belonging to the colour field in biblical Hebrew or to another field). Instances of the second category, although of great importance for a study of the colour field whose focus is MH, will be

presented only insofar as they fill a basic gap for which biblical Hebrew native stock was not suited, or where they tend to supplant native terms.

The method adopted corresponds to the one employed in Part II for the classification of the relevant lexemes according to the structure of the field. At the beginning of each section biblical Hebrew terms will be stated, followed by a list of innovated MH lexemes related to them etymologically and/or semantically. The lists are intended to be representative rather than exhaustive, descriptive rather than analytical. Greater emphasis has been accorded to the primary and secondary tertiary levels and to the section dealing with painting/dyeing than to the sector of indirect colour allusions, for the former categories constitute the core of the field, while the latter lies on its boundaries.⁴ Therefore, no special treatment will be accorded to these indirect significations, but they will be mentioned together with related terms wherever this seems appropriate. Finally, the chief semantically equivalent Jewish Aramaic⁵ terms are supplied in most cases.

B. PRIMARY TERMS

B.1 אֲדָם terms

1.1 Biblical Hebrew: אֲדָם; verb forms: Qal, Hif., Hithp.

Range of reference: from 'brown' through 'red' to 'pink'.

Focus: blood colour?

Items whose colour is referred to: animals' hides, lentils, blood, wine, human complexion.

1.2 MH. Qal, Hithp. are not attested, but Pi. and Hif. usages take over the relevant references. In addition we find אֲדָם (biblical name of precious stone) = 'redness', as in the syntagm 'הַמֵּאֲדָם אֲדָם' (Yer. Shabb. VIII, 10c). Thus the Pi. formation - in biblical language on the secondary level (מֵאֲדָם = 'dyed red') - has been expanded to signify 'cause redness', with a certain loss of the 'dye' connotation. Otherwise, the Pi. form belongs to the secondary level in MH as well.

Another new nominal is אֲדֻמָּה = 'red' colour (as in Num. R. 27). The two patterns utilized for constructing אֲדָם and אֲדֻמָּה are also present in the לִבָּן field of the same level - לִבְנוֹת and לִבְנוֹן - cf. below (2.2). Finally, the Hif. form ('become אֲדָם') assumes the specific signification of 'blush'.

The area of reference is now somewhat limited by the appearance of new subordinate terms which are ultimately related to אֲדָם, but entered the lexis through an intermediate stage (like the lexemes directly derived from אֲדֻמָּה - cf. *infra*, C.1); by other terms on all levels which can be used to discriminate a shade/degree of saturation formerly included in אֲדָם (זָהוּרִית עֲמוּקָה); and by the growing prominence of צָהָב. Cf., for instance, M. Nidd. 6:7 where, apart from אֲדָם and שָׁחֹר, various comparative structures are resorted to when specific definitions of shades on the axis between those two are required.

1.3 In order to complete the picture - we are dealing with an increasingly bilingual community - let us note the Aramaic equivalents. These are $\sqrt{\text{סמק}}$ -derived: סִמְקָא; Qal, Pa., Af. verb forms, and סִמְקִנְוֹתָא (parallel to אֲדֻמָּה).

B.2 לבן terms

2.1 Biblical Hebrew; לבן; verb forms - Hif., Pi. (Dan. 11:35), Hithp.

Area of reference: 'bright', 'clear', 'hueless', 'light', 'pale', 'white'.

Focus: the colour of snow? wool?

Items whose colour is referred to: animals' fleece, woodbark, teeth, גרם-seed, hair, clothes, the appearance of diseased skin.

Transferred to denote 'purification', '(moral) purity', 'cleanliness' (verb forms).

2.2 MH. לבן still dominates the field. Pi./Pu. are quite extensively employed, signifying 'whiten, bleach (cloth)' as well as 'clean', 'polish', 'smelt (<heat)'. This polysemic development, although hardly attested in the OT apart from in Dan., should be inferred as the link to the transferred sense of (spiritual and moral) 'purity' (Hif., Isa. 1:18, Ps. 51:9). Hithp., Nithp., and Hif. (for the special reference of the Hif. form + פנים in the metaphorical sense of 'cause shame' - T. Bab. B.M. 59a., etc.¹) are present as well. Two new nominals - לֹבֵן, לִבְנִית - refer directly to the quality of being לבן.

Inevitably, it seems that a competition for this slot between √לבר and √חורר derived lexemes (in biblical Hebrew in Isa. 29:22, perhaps also in Isa. 19:9, cf. II., D.2., above; and in biblical Aramaic, Dan. 7:9) should have taken place. However, the Aramaic term did not supplant the native one. Instead, it entered the language, but underwent a shift: → 'clarify', 'explain' (Pi., Hithp.).

Scope and application: these are as wide as in biblical language, which can be gleaned from a few idiomatic usages such as שדה הלֵבֵן ('field of wheat'), לִבְנִים (= 'white' garments, also fruit), לֵבֵן - 'white' part of the eye; or from the definitions of בהרה and שאת in the Mishna (Neg. 1:2f. - 'snow', 'whitewash' of the temple, 'egg-shell', 'bleached wool') and in the Tosefta' (Neg. 1:5 - 'wax'; קרמולין/קורמל = 'yellow-green'). On the other hand, צהב and לבן make each other mutually exclusive on the brilliance scale, inasmuch as צהב and אדם display the same relationship in respect to hue.

2.3 Jewish Aramaic: as noted above, the superordinates are √חורר derived: thus חורר, חור(ו); and Qal, Pa., Af. verb formations.

B.3 שחור terms

3.1 Biblical Hebrew: שחור(1) ; שחור? Verb formations - Qal.

Area of reference: 'dark-coloured', 'black'.

Items whose colour is referred to: human hair, human skin (complexion), animals' skin.

3.2 MH. שחור ; שחור Qal not attested; Hif. (Hof.), causative ('blacken') as well as intrans. ('become black'). The contrast parallel relationship with לבן is probably reflected in the idiom השחירו פניו כשולי הקדירה = 'was (made) ashamed'; cf. (פנים) הלבין (trans., intrans.) above (2.2), the difference in deep structure between the two idioms notwithstanding.

שחור (and its related terms) is well established as a superordinate of this sector in MH - its productive force is even more apparent within the subordinate strata. In addition, the many formations based on it in Jewish Aramaic - especially verb forms (Qal, Pa., Af.) and secondary formations alongside the native Aramaic אורכ and its derivatives - point to the vitality of שחור in MH, so much so that although not unknown in Aramaic - cf. Syriac שחורא ('coal') - its growing popularity could be attributed to MH provenance. On the other hand, Aramaic usage infiltrates MH; cf. MH אורכ ('very dark', see below, C.3.2) and Nithp. - נתאכם (+ פנים), 'be black(ened)', 'sunburnt' (cf. Song. 1:5-6; Job 30:30), whereas no שחור Hithp. form is attested. In addition, the scope of the term is segmented, and perhaps also delineated, by the introduction of lexemes such as שחום = 'dark, black' - a case of morpho-semantic contamination of שחור and חום? - which refers to the 'dark' signification of שחור (and is the Aramaic rendering of the subordinate חום in Gen. 30).

The 'dark' signification, as in biblical Hebrew, is denoted also by שחור and שחור-derived lexemes. Especially instructive are the syntagm הקדירו פניו (Gen. Rabb. 12), which is analogical/ interchangeable with השחירו פניו (= 'become black'), and the MH קדירה = 'pot', apparently from its blackened, charred appearance. On the other hand, there are plenty of instances where a שחור - לבן contrast denotes 'light coloured'/'dark coloured' antithesis, not 'black/white'; so in the case of 'hair' (M. Ned. 3:8), 'figs' (Teru. 4:8), and 'fruit' in general (Maas. 1:3), to name but a few.

3.3 Jewish Aramaic: the relevant $\sqrt{\text{אכט}}$ derivatives are אֹכֶם; אוֹכְמָא; אוֹכְמוֹתָא; אִיכוּמָא = 'blackness', 'darkness'. The verb series, however, is $\sqrt{\text{שחר}}$ -based: thus Qal, Pa., Af., in addition to other, morphologically secondary and semantically subordinate lexemes. $\sqrt{\text{חשר}}$ and $\sqrt{\text{קדר}}$ are utilized as well.¹

B.4 ירק terms.

4.1 Biblical Hebrew: ירוק (hapax); ירק?

Area of reference: 'pale', 'silvery', 'yellow-green'.

Items whose colour is referred to: vegetation (whether fresh or deteriorating).

4.2 MH. ירוק is further established. If in biblical Hebrew it is linked to vegetation only - although there are indications that even in OT language it was better established (ירקרק חרוץ, Ps. 68:14) - in MH its application is much more flexible (for example Mish. Ed. 5:6, דם הירק = 'yellowish blood'). An additional lexeme on this level is the Hif. חוריק, which appears with בצלילים = 'onions' and other types of vegetation and also with פנים (M. Sot. 3:3, 4). From the occurrences in MH together with those in the cognates (Aramaic Targums, Syriac and Mandaic) it is clear that ירוק and its derivatives still denote the same wide area as in biblical Hebrew, not necessarily 'green' in every instance. Therefore, the 'pale', 'colourless' aspect is common to ירוק and to לבן. Thus we find not only a שחר - לבן contrast concerning vegetation (3.2 above), but also a שחר - ירק contrast (M. Sheb. 6:3). In addition, a new term now occupies the intermediate position which is partly covered by לבן and partly by ירק. The Hif. (and Nif.) denominative of כסף means 'be(come) pale', 'colourless', while the Qal formation signifies 'feel ashamed'; cf. הלבינו פניו and Aramaic כספ with 'face' and 'hair'.

4.3 Jewish Aramaic: ירוקא, ירוק is, among other things, the equivalent of Heb. ירק. Verb forms - Af.

B.5 צהב terms

5.1 Biblical Hebrew: צהב

Area of reference: 'bright', 'gleaming', 'yellow'?

Items referred to: human hair.

5.2 MH. צהב is in the process of developing into a proper primary term which is considerably wider in distribution, scope, and flexibility than in biblical Hebrew. It is applied to 'hair', but also to the 'colour of pigeons' feathers'. On the other hand - as would be expected - its focus shifts from 'reddish-yellow' (cf. Ezr. 8:27) to 'yellow' itself: hence the new term צלהב, מצלהב both in MH and in Jewish Aramaic (cf. II, B. 5.3 above, pp. 103-4).

The process is exemplified by the productive force the lexeme now exhibits: there are a Qal verb form (+ פנים, cf. T. Bab. Hull. 7b), and a Hif. one (+ נחשת, M. Midd. 2:3) which has already been attested through the Hof. form in biblical Hebrew. These verb forms should not be confused with their homonym, a derivative of $\sqrt{\text{צחב}}$.¹ A nominal formation, again with 'feathers', is ציהגב.

B.6 Others: a term for 'Blue'.

MH lacks a primary term for 'blue', as does biblical Hebrew. $\sqrt{\text{כחל}}$ related lexemes, including כחול, are still transparently connected to their base - they signify a 'dark colour' notion which lies within the שחר sector.

This interpretation is in contrast to Rashi's comment on ככחולא (T. Bab. Hull. 47b), which he explains as 'sky-blue'. On the other hand, it appears that the shade of תכלת more popular in MH times and later was quite pale; this can be gleaned from a passage about תכלת which reads, התכלת דומה לים וים דומה לרקיע ורקיע דומה לאבן ספיר (T. Bab. Sot. 17a; Hull. 89a, and elsewhere).

Therefore, in the absence of an explicit term referring to 'sky colour, blue', תכלת is used as a substitute of sorts; cf. the contrast תכלת - לבן and תכלת - כרתי (= 'blue/green', 'dark') in the following passage: מאימתי קורין את שמע בשחרית? (M. Ber. 1:2). משיכיר בין תכלת ללבן. ר' אליעזר אומר בין תכלת לכרתי

C. SECONDARY AND TERTIARY TERMS

C.1 Under אָדָם

1.1 Biblical Hebrew: מֵאֲדָם, שֹׁרֶק, אֲמֹץ*

חמרמר, חמוץ, חכלילי, חכללות, לבן אדמדם, אדמוני

Scope: various aspects of chromaticity/saturation governed by אָדָם.

1.2 MH. אַדְמָדָם (cf. II, C.1.1, p. 106 above) is interpreted either as 'reddish', 'pink' (Mishnah) or 'deep red' (Talmud); the point of contention, then, is the saturation, not the fact that it is an אָדָם-governed (אַדְמָדָם שבִּאֲדָמָה) and not only an אָדָם-derived lexeme. Another partly reduplicated formation is אֲדָמִימִית, signifying the quality of being אָדָם or אֲדָם-like. מֵאֲדָם retains the same reference ('made' or 'died into אָדָם'), although the scope of the parent-formation (Pi.) is expanded (cf. above, III, B.1, p. 179). שֹׁרֶק* does not feature although it generates MH $\sqrt{\text{סִרְקָ}}$ (Qal, Pi.) = 'paint into bright red';¹ later, though, we can see how the meaning is expanded to denote 'paint' in general, and so also the nominal סִרְקָ (cf. below, D.3.2). It seems that Albeck is right in dissociating סִרְקָ from the Aramaic סִּיקְרָא - the latter and its denominative MH verb forms (again Qal, Pi.) retain the sense of 'paint with Siqrā' or 'paint eyes' (utilizing the hapax in Isa. 3:16, with a shift in meaning). This could perhaps be a case of a merger of two distinct root-sequences, or at least a convergence of polysemic elements in Aramaic, and therefore in MH as well.

Of the next level אֲדָמוֹנִי survives,³ as is attested by the personal name אֲדָמוֹן too. אֲדָמוֹן לבן אדמדם falls out of use - M. Neg. 1:2 speaks about הַפְתָּנוֹךְ שֶׁבְּשֵׁלֶג/שֶׁבְּסִיד, that is, the אֲדָמָה element mixed with לבן, exemplified by 'snow' and 'white-wash'. חכלילי disappears; the same fate befalls חמוץ (but cf. Jewish Aram. חִימוּצָה, 'red' garments⁴) and אֲמֹץ* of the secondary level (but cf. אֲמִצָּה = 'steak') - an indication in each case of the supportive/esoteric nature of the biblical lexemes. חמרמר* is elided completely - $\sqrt{\text{חמר}}$ forms serve for denoting 'burn, heat', but not in a re-duplicated formation. A trace of colour reference is opaquely inherent in חמור and its derivatives, and in אֲחִמָּר (= 'ruby', cf. the Arabic cognate). Otherwise, the lack of distinctive terms referring to segments of the אָדָם sector

is sometimes sourly felt. Then equations with substances of typical 'red' shades are evoked. Particularly instructive is a passage in the Mishna which deals with the appearance of menstrual blood (Nidd. 2:6-7):

חמשה דמים טמאים באשה - האדם והשחור וזקרון ופרסם וכמימי אדמה
 וכמזוג. בית שמאי אומרים אף כמימי חלתן וכמימי פשר צלי...
 איזהו אדם - כדם המכה. שחור - פחרת. עמק מכר - טמא. דהה
 מכר - טהור. וזקרון פרסם - כבור שבו. וכמימי אדמה - מבקעת
 בית הכרם ומציף מים. וכמזוג - שני חלקים מים ואחד יין
 היין השרוני.

(and see the Talmudic discussion of the same passage, Bab. Nidd. 19a, ff.). An additional simile within the same sphere is כשושנה אדומה (Lev. Rabb. 12). Another term is כָּתָם: in biblical Hebrew it denotes a type of gold (II, F.3.2 above, p. 167), in MH '(red) stain' (of menstrual blood) → 'stain' (of any kind).⁵

In a series relating to human skin colour we find גיחור (M. Bekh. 7:6; T. Bab. Bekh. 45b.) = 'flame-coloured', of face or skin,⁶ in conjunction with כושי = 'dark-skinned' and

לְוִיָּה/לְבָנָה = 'white-skinned', in a list cataloguing firstborn priests who cannot officiate because of a physical defect, in this case the extreme colour of the skin. Finally, an indirect colour allusion: the planet Mars is named מַאֲדִים (that is, the Hif. part. form is utilized for constructing a nominal lexeme).

1.3 Jewish Aramaic. סְ(י)מוֹקָא is the equivalent of אַדְמִים. Other terms are סְמוֹקְרִי and סְמִקְמִק (Sam. Aramaic). For renderings of these and other biblical terms, see II, C and D above, p. 106ff. Additional $\sqrt{\text{סִמְק}}$ and $\sqrt{\text{אִדִּם}}$ related lexemes are well documented as well.⁷

C.2 Under לָבָן

2.1 Biblical Hebrew: צַח, צֹר, צָחַר, חֹרֶץ

Scope: 'light coloured', 'pale', 'bright' - mainly luminosity and brightness (not chromaticity) aspects.

2.2 MH. Both צַח and צֹר* denote aspects of light ('clearness', 'luminosity'). צָחַר* features as well. Nevertheless, all three remain on the fringe of the sector, where the latter merges with the light/darkness field.

An additional MH lexeme is לְבִנְיָנִית ('whiteness'), another member in a series that includes אֲדָמוּמִית and שְׁחֹרֵרִית as well.

Another lexeme - לִיבוֹן - occupies a slot in this sector as well as in the field of cleanliness and purification (cf. the Pi. and Hithp. usage). חֹרֶץ, on the other hand, is only productive on the level of names containing colour allusions (חֹרֶרֶת = 'leucoma', 'cataract').

Let us return to the dimension of brightness and gloss, which is included in לָבָן. A further development is demonstrated by the utilization of בָּהֶקֶץ, בָּהֶרֶץ (biblical Hebrew: Lev. 13-14, בָּהֶקֶץ; and once בָּהֶרֶץ Job 37:21) in various formations, especially verbs - thus בֹּהֵק ('albino?'), and the Hif. forms of both roots.

M. Neg. 1:1-2, already quoted above, contains elements similar to biblical ones - 'לָבָן' as 'snow', 'wool', 'milk' - but also two new specifications: 'whitewash', and 'egg-shell'. Another passage reads לָבָן כְּמַרְגְּלִית = 'the colour of pearls' (T. Bab. Yoma 75a, in a discussion of Ex. 16:31, כֹּזֵשׁ גֵּר לָבָן).

For skin-colour of humans, apart from the above mentioned גֵּרמָנִי (גרמ(ו)ני) (a loan-word from Greek, C.1.2 above), we have לְבָנָן (= 'German') as a general denotation for 'whiteskinned man' (opp. כּוּשִׁי, M. Neg. 2:1). The same passage explicitly refers to לָבָן and שָׁחֹר as the two extreme poles of the colour spectrum between which the other colours should be placed:

בְּהֶרֶת עֵזָה נִרְאִית בְּגִרְמוֹנִי כְּהָה וְהַכְּהָה בְּכוּשִׁי עֵזָה. ר' יִשְׁמַעֵאל
אָמַר בְּנֵי יִשְׂרָאֵל... לֹא שְׁחֹרִים וְלֹא לְבָנִים אֲלָא בִּינּוֹנִים. ר'
עֲקִיבָא אָמַר יֵשׁ לְצִיִּרִים סְמָמָנִים שְׁחָם צִדִּים צוּרוֹת שְׁחֹרוֹת
וְלִבְנֹת וְבִינּוֹנוֹת. מֵבִיא סֵם בִּינּוֹנִי וּמְקִיפּוֹ מִבְּחוּץ תִּרְאֶה
בְּבִינּוֹנִי...

A comparison of the observations quoted in this Mishna - and in Neg. in general - to Lev. 13 shows how much more articulate, discriminating and colour conscious is the former (Cf. further the discussion in the Talmud, Sheb. 6a f.)

C.3 Under שחור

3.1 Biblical Hebrew: שחור* חום,
כהה, חשך

Scope: 'dull', 'dark' to 'black'.

3.2 MH. שחור* falls out of use. שחור* is used as a base generating the nominal שחור* ('blackness', 'darkness' = 'sinfulness', Song. Rabb. to Song. 1:6). שחור* completes the basic series לְבָנִית, אֲדָמִית, שִׁחֹר, following its Aramaic equivalent, denotes 'coal' (Cf. biblical Hebrew שחור, according to Gradwohl, II, B.3 above, p. 181 ff.) in opposition to מרגלית לבן (Ex. Rabb., 42). כהה = 'dull', 'dim', 'dark' is defined by its opposition to בהרת עזה (cf. M. Neg. 2:1 quoted above). A parallel for ... השחירו פני (T. Yer. Hag. II. 77b), using חשך, is to be found in the Qumran Hymns, 1QH 5:32, ויחשך מאור פני לאפלה. Further discrimination of shades of 'blackness' and their differentiation are presented through new terms: שחם - שחמית; שחום, שחום; שחור in opposition to צהור (Tal. Ber. 36b); מפוחם (< פוח, Gen. Rabb. 36); and כחול (cf. Ezek. 23:40). Intermediate positions ('grey'?) between לבן and שחור are apparently denoted by שחור or שחור (opp. לבן - M. Hull. 11:2 Tal. Hull. 135b¹) for 'sheep', טיבה, טיבה (Tos. Neg. 1:4, cf. biblical language) for 'hair'. A dark person is a פוש (M. Neg. 2:1), and the lexeme functions as a substitute for שחור in syntagms such as אחרג הפוש (M. Sukk. 3:6) and לין הפוש, and is a member in the series which includes גיחור; לוקן/לבן (M. Bekh. 7:6); and טפח, Tal. Bekh. 45b (from 'pitcher', whose characteristic colour was dark²). However, most distinctions are defined by means of a simile which evokes a typical colour quality. Thus שחור is compared to ענבה, זית, זפת, עורב, קדרה, עורב, זפת, זית, ענבה. This practice is an indication that existing terms, although greater in number and more specific than those of biblical Hebrew, are still inadequate, and hence the profusion of comparisons.

3.3 Jewish Aramaic. To the terms mentioned above we should add שחם → שחום (biblical Hebrew חום, שחום, שחום - all referring to 'dark', 'black', perhaps a shade lighter than שחור proper. שחור* looks like a Hebraism. Other שחור* related lexemes contain colour allusions ('שחור*', 'coal'), but not 'colour' notions *per se*.

C.4 Under יָרוֹק

4.1 Biblical Hebrew: יָרוֹק

Scope: 'pale', 'yellowish', 'greenish'.

4.2 MH. יָרוֹק is used for defining the same 'diseases' as in Lev. 14, but also for complexion - אֲסֹתֵר יָרוֹקֶת הִיחָה (Tal. Meg. 13a). Otherwise no new lexemes are generated from $\sqrt{\text{יָרוֹק}}$ on the directly subordinate level. There are further developments in other parts of the field: יָרוֹקֶת - יָרוֹקֶת (name of a vegetable and a fish) and יָרוֹקֶת ('vegetables') are added to the old יָרוֹק and יָרוֹקוֹ.

An unrelated term is אֲחֹתֵר - 'greenish', 'dark green' - of what looks like Arabic provenance (cf. אֲחֹמֶר). Other descriptions are those utilizing similes or derived from analogies: יָרוֹק כְּכֶרֶת - and in M. Ber. 1:2 כְּרֵתִי is put in juxtaposition to תַּכְלֵת ; יָרוֹק כְּשֶׁעוּה (Tal. Nidd. 19b, a denominative Hif.); יָרוֹק כְּאֶתְרוֹג (T. Yer. Sukk. III, 53d); and more.¹

Herszberg² lists פָּרֶכֶס-derived terms within this section. This is not accurate: the idiom סָרַק וְאוֹ פָּרֶכֶס (M. Kel. 15:2) seems to indicate 'paint', 'varnish' in general, not only with פָּרֶכֶס or סָרַק. The denominative Pi. and Nithp. formations + פָּנִים either signify 'become pale' - an equivalent of פָּנִים + הַכְסִיף, - or figuratively 'was sorry, angry', without any colour connotation. An occurrence in Song. Rabb., נִתְכַּרְמוּ פָּנָיו (to Song. 1:6), discusses sun-tanned complexion - that is, bronze colour, elsewhere referred to by צָהָב. קָרָן פָּרֶכֶס is a specification of אֵדָם (C.1.2 above, p. 187). Therefore, I think that פָּרֶכֶס belongs to the section dealing with paints and dyes. Admittedly, though, some of its usages belong to the area which is common to לָבָן, יָרוֹק, and צָהָב - that 'pale', 'colourless' - luminous, not chromatic - quality to which each of them might refer within a given context.

C.5 Under צהב

5.1 Biblical Hebrew: מצהב

Scope: 'gold-coloured', 'bright', 'shining'.

5.2 MH. The equation זהב = מצהב 'of gold colour/sheen' - first found in Ezr. 8:27 in a description of copper vessels - can be found here as well. Thus M. Midd. 2:3; כל השערים שהיו שם בשתנו להיות של זהב... מפני שנעשה בהן נס. ויש אומרים מפני שנחשתן מצהיב.

Consequently, a Hif. formation was constructed from זהב. However, this seems to indicate a specification of הצהיב rather than an equivalent. We read in the Mishna (Hull. 1:5): כשר בתורין פסול בבני יונה כשר בבני יונה פסול בתורין. תחילת הציהוב בזה ובזה פסול. But, on the other hand, in the Sifra (Lev. 1:14) and the Talmud (Hull. 22b); מאימתי התורין כשרין? משיזהיבו.

ומאימתי בני יונה פסולין? משיצחיבו.

The biblical להצהיל פנים משמן, (Ps. 104:15), הצהיל = 'make shining, brighter' reappears in MH, although rarely, with the same idiomatic meaning. Thus we have מצהיל פנים כחמה (Pesik. R. 20) = 'lights', 'brightens like the sun'. Again, the basis for the metaphor lies close to the referent of צהב and its derivatives. Similarly, new lexemes are derived from צהר; cf. Hif. /צהר - 'brighten', 'make glossy' (Lev. Rabb. 5).

D. MAN-MADE 'COLOURS': DYES, PIGMENTS, DYED MATERIALS,
MAKE-UP, WRITING MATERIALS

D.1 Terms for painting, dyeing and colouring.

1.0 In contradistinction to biblical Hebrew, which does not possess even one term denoting the activity of painting/dyeing, MH has quite a number of them. These can be divided into the following groups:

1. Terms signifying the general notion of 'shade' (chromaticity) or 'dye' (with no specific reference to any one given hue) and/or the activity of dyeing/colouring.

2. Terms signifying a particular notion of a certain shade/hue, but also serving, in some contexts, as 1. above.

Within and across these two categories a further distinction should be made between two sub-groups; one referring to various activities and concepts connected with textile dyeing, and a second referring to other activities/concepts (cosmetics and so on).

1.1 General terms

The semantic void of biblical Hebrew is filled by borrowing either from other languages - צָבַע, צִבְעָה etc. from Aramaic; גוון, גוון from Persian; כָּרוֹם, אֶכְרוֹם from Greek; or from another field in Hebrew itself - טָמַע?

1.1.2 צָבַע - originally 'wet, dip, immerse' (biblical Aramaic: Dan. 4:12, 20, 22, 30; 5:21. Pa. and Hithp.) → 'dye' is the dominant base in the sector. The Qal refers to the activity of textile dyeing: the pass. part. signifies a 'dyed' condition (for material, Num. Rabb. 2; hands - M. Neg. 4:7) and by extension 'a hypocrite'. The activity itself is called צִבְיָעָה, the professional who engages in it is צִבְעָן, and 'dyed/colourful clothes' are צִבְעוֹנִין (בגדי). צִבְעָה denotes 'dyed material', but also 'dye' (M. Nidd. 9:6, in opposition to פָּתָם = 'stain') and 'coloured appearance' (Num. Rabb. 2). צֹבֵעַ is more specialized - it denotes 'material for dyeing' and especially 'vegetable dye' (M. Sheb. 7:1 ff.; see below, 4.1).

1.1.3 גוון, גוון = 'shade, hue' (Tal. Erub. 53b., Nidd. 24b; very frequent) is of Persian origin. אֶכְרוֹם, כָּרוֹם is a loan from Greek/Latin *chroma*.¹ Within some contexts כָּרוֹם refers specifically to 'paleness' or 'greenness', but its general denotation

as an equivalent of גוֹן, גוֹן (although it is less frequent) is beyond question.

The last term in this series is סַמֵּן, סַמֵּן - in biblical Hebrew 'spice used for preparing incense' (in P and Ch.),² and in MH - 'drug', 'medicine', but also 'colouring agent, dye' (cf. below under 'Writing Materials').

To summarize: three out of the four new terms in the series צָבַע, גוֹן/גוֹן, אַכְרוּם/כְּרוּם, and סַמֵּן/סַמֵּן are loans (from Aramaic, Persian, and Greek/Latin respectively), and one a specialization of a native term. סַמֵּן / סַמֵּן and צָבַע signify 'dye' too. In addition, the biblical usage of 'כֶּמֶץ', 'כֶּמֶץ' is resorted to many times.

1.1.4 Biblical צוֹרֵץ, צוֹרֵץ is the base from which MH צִירָ Pi. and צִירָ = 'someone who engages in the plastic arts' are derived. As such צִירָ and צִירָ refer to the activity of painting and drawing as well - cf. Gen. Rabb. 1, where סַמֵּן appears in the same context.

1.2 Another category is that of terms which are originally restricted in reference to a certain type of colouring activity, mainly make-up, and/or to a certain shade/pigment used within that area; from these the scope is widened to denote the process in general, and even to 'cover with paint'. Thus סָרַק = a type of 'reddish' make-up for the face and the verb formations related to it have come to denote 'paint', and not only the face, especially in the syntagm סָרַק וְכִרְפֵּם (M. Kel. 15:2 and more). Similarly, כִּרְפֵּם - from כִּרְפֵּם, basically 'pale', 'saffron coloured' - became 'paint', 'polish'.³ Within the same sphere, פָּקַס Qal, from פָּקַס⁴ = 'rouge', signifies 'rouge', 'make-up the face'; but its derived form - פָּרַקַס / פָּרַקַס, with a dissimilatory /ר/, also denotes 'paint' (the body, and not with פָּקַס only). Viewing the latter verb as an enlargement of פָּקַס seems more convincing than to derive it from פָּרַקַץ,⁵ especially in the light of the parallel developments צָבַע = 'hypocrite' (< צָבַע), פָּרַקַס = 'deception', 'deceptive appearance' (< פָּרַקַס). Finally, we have פִּיחַ Pi., chiefly in the series פִּיחַ - פִּיחַ - פִּיחַ, meaning 'to paint', 'give a colourful appearance'. Jastrow derives it from biblical פִּיחַ = 'soot'. Unless we assume that the verb has undergone the expansion process described above, it should be considered a derivative of a homonymic פִּיחַ root; cf.

Moresbeth for the latter view and for quotations.⁶ There is no doubt, however, concerning $\sqrt{\text{bhs}}$ Pi./Pu., Nif., Nithp., all denominatives from bhs . These refer to various aspects of 'blackening', 'becoming black', and not necessarily through touching charcoal (as in Tos., Maas. Shen. 5:13).⁷

D.2 Colourful Textiles

(Cf. Herszberg, הארץ, p. 267ff.)

2.0 In biblical Hebrew primary terms are not customarily used for denoting 'dyed shade', 'dyed/colourful cloth'. When they are, it is within sections that are late (post-exilic): לבושך (Isa. 63:2) and בגדים לבנים (Qoh. 9:8) are the only instances. In MH, though, we find צמר that is not only לבו, but שחור and אדום (M. Bab. Kam. 9:4) as well. Garments can be שחורים or לבנים, thus by-passing the need for specific terms, while 'red' dyed garments are defined and discriminated by existing biblical terms (שני, ארגמן) or their equivalents (זהורית).

2.1 ארגמן - denoting the cloth itself and its 'dyed' property - is far from specific: in the Temple Scroll¹ we encounter the specification אדום ארגמן within a text based on Exodus 25, where ארגמן only is mentioned. An additional designation is פורפוריון-פורפורה, a loan from Greek, mainly a reference to 'purple garments' in the Midrashic literature.² The Aramaic ארגון is of minor importance in MH, for the standard biblical form is retained.

שני, תולעה, תולעת שני = 'scarlet, crimson' are used sparingly. The chief term is the Aramaic זהורית, a culture word with cognates in Akk. (*inzah(u)retu*) and in Syriac, but with no satisfactory etymology.³

2.2 תכלת (Aram. תכלא, תכלתא) denotes 'dyed wool of a certain colour', as in biblical Hebrew. In addition, it serves as a substitute of sorts for the empty 'blue' slot (cf. B.6 above, p. 185). The colour reference is quite extensive - from 'sky/lapis lazuli blue', to shades close to 'green' (תכלת ≠ כרתי) and darkest violet/purple.⁴

2.3 'Colourless'—'white' kinds of cloth in biblical Hebrew are שש, בגדי כרפס, חור (the latter two in Esth. only), and once בגדים לבנים (II, B.2.6 above, p. 90) - a forerunner of MH usage. In MH כרפס hardly features - instead צמר גפן is used.⁵ חור, unless reflected in the Aramaic אירא (with a loss of the original /ח/, although Jastrow relates the latter to אור),⁶ disappears too.

שש supplants בגדי. When the writer of the archaizing War Scroll from Qumrān uses שש, as is dictated by his biblical source

material, he adds לבן as an explanatory gloss (II, E.2.3.1 above, pp. 148-149).

The more frequent designation is simply בגדים לבנים or לבן בגדי/פלי - the primary term is expanded to denote 'man made' appearance, as in עירב לבן (// שתי צבוע). An equation of לבן בגדי = בוץ = שש seems to be in order. Thus M. Yoma 3:7 supplies us, as specifications of the high priest's לבן בגדי, with the names for two types of בוץ : פלוסין, from Pelusium in Egypt; and הַנְּדוּיִן from India.

2.4 No specific terms denoting textiles of additional colours + the dyeing agent used for producing them are extant, although information concerning dyeing processes is readily available.⁷

In contradistinction to the linguistic-literary lack, archaeological finds from the Bar-Cochba period vividly illustrate the realia that is only inadequately reflected in linguistic usage.⁸

D.3 COSMETICS

3.1 In biblical Hebrew only terms referring to eye make-up are preserved. The earlier פִּגְמָה is probably the equivalent of כֹּחֹל, כֹּחֹלִי. Therefore, the development of the כחל sequence - MH. Qal, פִּחְחֹל; Aramaic Qal Ithp.; כִּחַל, כִּחַלִּין (= Hebrew נִפְךְ); and מִכְחֹל - while פִּיךְ displays no productive potential, is hardly surprising. No change is to be detected in the extra-linguistic reference, which is quite problematic.

סִיקְרָא and its denominative סִקְרָא (Qal, but especially Pi.) also refer to eye make-up, like the biblical *hapax* of a different sense (Isa. 3:16). Therefore I find it difficult to accept the equation $\sqrt{\text{סִיקְרָא}} = \sqrt{\text{סִקְרָא}}$ (through metathesis), or an interpretation of סִיקְרָא as always denoting a 'red' paint. Perhaps the Qal should be differentiated from the Pi., the latter being a secondary development based on the biblical occurrence?

3.2 No specialized biblical lexeme refers to face make-up, whereas in MH we have פִּיקָא (and its denom. Qal), פִּרְקָא/פִּרְקָא and סִרְקָא (שִׁרְקָא). פִּיקָא (from Greek, Latin¹) is 'rouge'² - cf. Tal. Bab. Shabb. 64b, שְׁלֵא תַכְחֹל וְלֹא תַפְקֹס. The secondary formations פִּירְקָא/פִּרְקָא/פִּירְקָא/פִּירְקָא signify 'painting' (face), 'dyeing' (hair) → 'deception'.

סִרְקָא and its Pi. denominative, often appearing with פִּרְקָא, is according to Herszberg³ the equivalent of biblical Hebrew שֶׁשֶׁר. Its etymology - biblical שֶׁרֶק*, Akk. *šarku* = 'dark blood'⁴ - points to a positively 'red' effect of some kind. It is used as dyeing agent for general purposes, but also as a cosmetic for the face (Tal. Sanh. 14a, among others).

3.3 סִיר = (lime) was apparently used as a hair preparation (cf. M. Shabb. 8:4).

D.4 DYEING AGENTS AND PIGMENT SOURCES

4.1 צֹבֵעַ, pl. צֹבְעִין/צֹבְעִים is the general term applicable to the notion of 'vegetable dye': M. Sheb. 7:1 ff. lists vegetation bases used for dyeing under the heading מְמִין הַצֹּבְעִין. Unlike אֲרָגְמָן / שָׁנִי, תְּכֵלֶת, אֲרָגְמָן, our terms do not signify 'coloured appearance' of a certain textile, but the name of a vegetable or fruit base used for extracting a required dye.

4.2 On the basis of the sources Herszberg supplies a full list of dyeing agents.¹ The list is reproduced below, together with some remarks concerning linguistic points or aspects of realia related to various items.

אִיסְטִיס	- Wade, for producing dark to blue appearance, from the Greek. ²
פִּזְאָה	- Alizarin, ³ dyer's madder; for red.
קְלִיפֵי אֲגֻזִּים וְרִמּוֹנִים	- Nut shells and pomegranate peels; for yellow-red.
רְכָפָה	- Cyclamine; ⁴ red.
קִינְאָה	- Madder; ⁵ red.
תּוֹלַע (ע) נָא	- A tree; ⁶ from תּוֹלַע = scarlet, crimson.
לִפְתָּא / לִפְתָּא	- Arabic and Latin cognates, ⁷ originally from India; a gum compound used for achieving a bright red effect.
חֲרוֹץ	- Safflower (cf. Syriac, Arabic, Phoen., Akk.; Heb. חֲרוֹץ); for yellow to red and pink.
לְשִׁישִׁית, חֲלָבִינִין	- Signification unclear. ⁸
קִלְא-אֵילָן	- Indigo; from Greek; ⁹ for producing blue to violet cloth.
כִּרְפָּת	- Saffron (cf. II, E.4.1 above, p. 153) used in combination dyes; hence probable כִּרְפָּת, in an expanded sense = 'to dye, paint, stain'.
אֹג	- Red berry. ¹⁰

Most agents are used to achieve dyes which may produce red, yellow, or blue; linguistically, the terms themselves supply no clue as to their referents. Finally, if we are to return to Yadin's finds, and if these are to be taken as indicative, some agents - namely indigo, alizarin, saffron, and carminic acid - were much more popular than others.¹¹

D.5 WRITING MATERIALS

The relevant biblical terms are שֶׁטֶר, דִּיּוֹ and perhaps שֶׁטֶר (II, E.5, p. 154). MH sources list דִּיּוֹ; סַט (D.1.1.3, pp. 193-194); קומוס; סִיקְרָא (from Greek - a kind of gum); and קִלְקִנְתוּם/קִנְקִנְתוּם (Greek, = sulphate of copper) - all in M. Shabb. 12:4.¹ Other materials are חֶרֶת (M. Nidd. 2:7, שְׁחֹרַר כַּחֲרֵת, and explained in Tal. Nidd. 20a. The Aramaic idiom is חֲרוּתָא דְּדִיתָא; שְׁחֹרַר שְׁחֹרַר - 'coal, soot' (Tal. Gitt. 19a); מִילָן, מִילָנִי (from Greek,² 'black', 'dark pigment', Gen. Rabb. 1); and כַּחֹל (D.3.1, p. 198). It seems that דִּיּוֹ = 'ink' is the superordinate term in this sector; therefore it does not refer to any specific colour quality. The other terms do represent colour qualities within the שְׁחֹר/אֲרִים ranges. The number of loans from Greek here is three - מִילָן, קומוס, קִנְקִנְתוּם/קִלְקִנְתוּם - which is quite surprising. This perhaps represents the borrowing of practices together with their names.

D.6 WHITEWASHING

טִיד typifies a certain לָבָן appearance in M. Neg. 1:1, כסיד ההיכל. It refers not only to the natural mineral ('lime'), but also to its processed appearance ('plaster') and colour. Thus Qal, Pi., Pu. = 'to whitewash', 'plaster'; טִיד = 'limeburner', 'plasterer'.

On the other hand, גִּיר (also 'lime') is not as productive in this area. Noteworthy is גִּיר with an opposing reference, as in 'ביצת הגיר' (Tal. Bets. 15a) = 'inkstone', 'sulphate of iron'.¹ Rashi comments on Ex. 16:14, וְהָיָה כַּמִּין צֶבֶעַ שְׁחֹר, (based on Tal. Hull. 88b., הַגִּיר וְהַזְרָנִיךְ). As such, this גִּיר merits a separate lexical entry as a homonym of גִּיר = 'lime'.

E. SUMMARY

1. Whereas no new primary terms are created to fill obvious gaps in biblical Hebrew (for 'blue', 'brown', 'pink', 'orange', and 'grey'), existing primary terms continue to function as such. צָהָב and לִירֶק , whose status within this stratum has previously been weak or not attested, emerge as more securely established. Within the existing boundaries there appear new constructions, either of verbs or of nominals (the series לִבְנוֹת , אֲדָמֹת), which are generated by the old terms.

2. Further specification is achieved by the introduction of new subordinate lexemes. These are derived from native stock which features in OT language, but built upon new patterns (אֲדָמִימוֹת); brought in from neighbouring fields (הַכְּסִיף , הַצְהִיל); or created through a process of morpho-semantic contamination ($\text{חֹרֶם} + \text{שָׁחַר} < \text{שָׁחַם}$; $\text{צָהָב} + \text{עָבַר} < \text{עָבַח}$). At the same time some terms which were rare, isolated, or idiolectical within biblical Hebrew are dropped out of usage (חֲכִילִי , חֲמִיר) or returned to their original slot outside our field (צָח , זֶרֶךְ). Therefore, it seems that despite the accidental manner in which biblical language has been preserved, statistical/distributional factors should not be disregarded out of hand.

On the secondary/tertiary levels, as on the preceding one, loan words form a small minority.

3. In the absence of monolexemic or unilexemic terms, analogies are resorted to - the shade/brightness aspect referred to is conjured up by means of a comparison, as in biblical Hebrew, albeit with much greater detail and precision.

4. The greatest development is to be found in the section covering man-made 'colours' (D. above), that is, the linguistic sector which reflects technology and material culture best. Whereas in biblical Hebrew no term for dye/paint or dyeing/painting is extant, MH employs quite a number of them, both general and specific (D.1). Although some OT terms are rejected, this is usually done in favour of a modern equivalent (זָהוּרִית for שָׁנִי , טָרֶק for שָׁרֶק , although שָׁרֶק itself disappears). The profusion of data concerning dyeing/painting (D.1, 2, 4), make-up (D.3), and writing materials (D.5), together with the fact that

quite a few terms are borrowed - mainly from Aramaic and from Greek/Latin - probably demonstrate not only a growing awareness of and preoccupation with colour phenomena, but also a growing need and wish to express fine distinctions in a more precise manner. The language must be a reflection of superior technology, brought about by changed conditions and the passage of time. The process of linguistic expansion in this field is quite noteworthy even when MH is isolated from Aramaic, as has been done here; and even though throughout the life-span of MH its co-existence with Aramaic gave rise to bi-lingual interference, as much as to supplements of missing terms from Aramaic lexical resources into MH (and, to a lesser extent, *vice versa*).

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IV SUMMARY

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affairs appears on the secondary/tertiary levels. Within the sector comprising terms for pigments, dyes, and so on most data refer to textiles. Here too בָּרָק -governed terms form a majority, while לָבַן - governed terms come second.

As for peripheral terms, proper names are difficult to tie up with colour terms - often they are generated by homonymous, not identical, sequences that are semantically opaque. It is easier, and perhaps more meaningful, to establish connections that may be called folk etymology or literary associations. Other terms which contain indirect colour allusions include some relatively clear-cut cases (names for precious stones, metals), although the inter-relationship is not always easy to define.

5. In MH, as is to be expected, the field becomes better defined. This is the result of its expansion and the demarcation of existing segments by the addition of new terms. On the other hand, no new segments are actually carved for basic 'blue', 'grey', 'orange', or others. The development takes place within the previously defined segments.

The new terms are either of biblical Hebrew provenance, or else they are loans from Persian (as in late biblical Hebrew), Greek, and Latin, but mainly from Aramaic. The best-developed sector is that of pigments, dyes, and painting. Two possible reasons for this might be either that the language adequately reflects the superior state of technology, or that the type of literature preserved simply contains more information pertinent to our study. If the latter reason is the more weighty of the two - which cannot be ascertained - then the real advancement is less spectacular than it appears to be. Finally, bi-lingualism (Hebrew-Aramaic), which accounts for the borrowing and/or Hebraizing of many Aramaic forms, might also have blunted the motivation for further development.

**V SOME REMARKS ON
COLOUR TERMS IN MODERN
SPOKEN HEBREW**

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SOME REMARKS ON COLOUR TERMS IN MODERN SPOKEN HEBREW

Although, strictly speaking, colour nomenclature in Modern Hebrew is a subject beyond the scope of this study, I feel that it is relevant to the present study inasmuch as it illustrates a conscious, even artificial utilization of old word-stock and its adaptation to changing needs and changed times.

When we deal with the renewal of Hebrew as a common language for everyday speech we usually fix the origins of this phenomenon in modern times at about 1880. More specifically, 'Modern Hebrew' is the language used among Jews in Israel (Palestine) as the chief medium for communication especially since the first World War. The waves of Jewish immigration that followed that war, the Russian Revolution, the political conditions in Europe, and the Second World War - in short, the chain of historical events which transformed a small Jewish settlement into an independent state - intensified the need for a language that would preserve as much of its ancient features as possible while, at the same time, function as a suitable vehicle for communication in a modern Western-type (albeit genetically mixed), and technologically advanced, society.

Colour terminology gleaned from previous strata of Hebrew, as is the case with other sectors of the vocabulary, was felt to be inadequate for contemporary usage already during the 1880's. The European education of the new Hebrew speakers made the gaps in Hebrew lexis - even after all available diachronic sources were delved into and consulted - acutely apparent. It seems that the first task undertaken in this direction was that of completing the list of the eleven 'basic' colour categories.¹ To the existing stock of **לָבָן** ('white'), **שָׁחֹר** ('black'), **אָדָם** ('red'), **יָרוֹק** ('green'), **צָהָב** ('yellow'), and **חוּם** ('brown') - all found in biblical literature, although not necessarily relating to the same points of reference - five more terms (for 'blue', 'purple/violet', 'pink', 'orange', and 'grey') were added in quick succession. **כָּתָם** ('orange') and **כָּחֹל** ('blue') were coined as derivatives of biblical and MH forms and bases (**כָּתָם** - **פָּחַלַת עֵינַיִךְ** - Ezek. 23:40, and **כָּחַל** in MH and in the Aramaic of the Targums²), already in 1887.³ By the beginning of the 20th century Ben Yehuda had already 'invented' new terms for 'pink' (**וִירוֹד**, from MH **וִירָד**,
וִירָד

believed to be of Persian origin⁴), and for 'grey' (אפור, from biblical אפר = 'ashes').⁵ A word for 'purple/violet' - סגול, from the name of the plant סִיגָלִי = 'violet', mentioned by Rashi - was added at about the same time.⁶ Thus, by the beginning of our century all eleven primary terms were available for everyday speech. Furthermore, at the end of the entry צבע ('colour, paint'; see discussion of biblical and MH צבע and forms related to it) in Ben Yehuda's dictionary a list of chief colour terms appears.⁷ The items on the list are mainly of primary and secondary status. The 22 terms fall into the following categories.

- a. Biblical terms (13): שחור, אדום, אמיץ, בדר, חום, תכליל, חמוץ, ירק, חמוץ, חמוץ, חמוץ, חמוץ, חמוץ, חמוץ.
- b. Terms found in MH and in Aramaic, or adapted from biblical Hebrew (7): שחף, שחם,⁸ פחם, חגר, ורד, אפר, אכלם.
- c. Newly coined terms (2): סגל, פחל.

Out of the 22 lexemes, 3 are marked by the symbol indicating an original contribution by Ben Yehuda himself (ורד, אפר, אכלם). Another lexeme which Ben Yehuda tried to reintroduce - חטוב or הִטָּב ('variegated') - never entered colloquial speech.⁹ Sivan is probably right in saying that Ben Yehuda wished to reserve the *pa-ol* pattern for colour names only.¹⁰ This, and the practice of drawing heavily on ancient Hebrew sources (while at the same time leaning on Arabic usage as well) were the two prominent principles which governed the introduction of prescribed terms in years to come.

The prescriptive nature of proposed terminologies pertaining to various fields became even more emphatic with the periodical publishing of word lists for specific subjects. These lists came to fill serious gaps in the vocabulary, so that foreign words would be used less frequently or - preferably - not at all. Every issue of לשוננו from the first one (1928/9) until the late 1940's carried such lists, the result of work done by sub-committees of ועד הלשון¹¹ (the Committee for the Hebrew Language) and continued until this day by the Academy for the Hebrew Language.^{12,13}

A prescriptive (semi-official) list of terms for colours, colouring and painting was compiled in 1931-1934 and published

in לשוננו VI (1934-5, pp. 83-87). Again, the most important principle is the utilization of material found in the ancient sources - and first and foremost, in the OT - and its application to modern usage inasmuch as this was at all possible before coining new terms.¹⁴ Some colour terms which were already in existence at the time were granted a stamp of approval, while others were newly suggested and subsequently either accepted or else rejected by the speech community. This list will be called, henceforth, "list A".

On reading the list the guidelines according to which it was compiled become fairly clear.¹⁵ The main ones seem to be:

1. Hebrew forms (of all periods, but mainly based on biblical Hebrew, MH, and recent additions) and Hebraized forms are recommended in almost all cases. Some words are derived from Aramaic (זָהָרִית, p. 85, and related lexemes; חֹרֶר and חֹרֵר, p. 86, although the latter is a *hapax legomenon* in biblical language). The foreign פְּרָמִיָּן (p. 86) is an international culture word; thus its inclusion (instead of its biblical doublet פְּרָמִיל) can be justified. The adoption of the $\bar{p}\bar{a}\bar{c}\bar{o}l$ model as the basic pattern for colour-denoting lexemes is in the spirit of the innovations proposed by Ben Yehuda and his contemporaries.
2. Traditional Hebrew words are given a semantic shift of sorts - their form is kept, while their designations might be changed. So, for instance, תַּכְלֵת and its derivatives (p. 87).¹⁶
3. Old forms are utilized as productive bases for new forms - הִסְתַּמֵּק (p. 85), הִתְיַרֵּק (p. 87).
4. For the specification of secondary or tertiary terms:
 - a. Whenever possible one single lexeme is prescribed, be it an ancient Hebrew lexeme (אֶמֶץ, p. 85), an Aramaic base (סִמֵּק, p. 85), or a derived innovated form (תַּכְלֵת, p. 87).
 - b. The exact chromatic value a term represents within its sphere is specified by appending to it a name for an ('natural') entity which characteristically exhibits that shade. The resulting syntagms are constructed as compounds - יֶרֶק וְשֵׁא = *Grasgrün*, יֶרֶק זֵית = *Olivengrün*, יֶרֶק תְּמָר = *Palmengrün* (p. 85).¹⁷ More rarely, a compound of two colour terms is prescribed for borderline cases: thus חוּם-אֵלֶם (p. 85) and כָּחַל-שָׁחֹר (p. 86) for peripheral colours that are situated away from the focus of their sectors.

c. Degrees of brilliance/saturation are usually indicated by appending an adjectival modifier to a (primary) colour term: הָאֵם הַהִיר = *hellrot*, הָאֵם הַגִּבֹּהַּ = *hochrot*, הָאֵם הַעֲמֹק = *tiefrot* (p. 85). These look like calques, or loan-formations based on European practice.

The self-evident purpose of such a list is the controlled addition of a whole body of new terms to the vocabulary of the language. Pre-existing terms, while consciously exploited, must perforce lose a certain amount of their original sense, and in most cases they become narrower in scope. The new presence of numerous lexemes within slots that were previously vacant or else occupied by a single term or only a few terms makes old and new mutually exclusive on a synchronic level. הָאֵם , for instance, is presented as denoting a much more specific value. While it is still a blanket term (*rot*, p. 85), because there are so many more monolexemes and compounds subordinated to it it now designates - more than any other chromatic property - what in biblical language could be properly called its focus = 'blood colour'.¹⁸

To be sure, this dual function of a term as both superordinate and hyponym in its own sector is not unique. It is already found in biblical Hebrew (see הָאֵם there), and the linguistic principle behind the phenomenon is well recognized. However, the introduction of new terms restricts the scope of the hyponym by fixing other terms at its boundaries. The availability of וְרֹד (p. 85) would presumably exclude the usage of הָאֵם , or צֶחַ וְאֵדוֹם , from the description of 'healthy complexion', unless a direct biblical allusion or association is intended. The list was

The list was published over forty years ago. Today any native speaker of Hebrew would agree after a cursory glance that not all of the old or innovated forms proposed fared equally well. Some do not feature in standard speech, or perhaps never even entered the *parole* sphere. These 'reject' items were either not accepted or else have not survived into the 1970's, were relegated to the level of literary/poetic diction and restricted to it, or acquired meanings not recommended in the list. Thus the Aramaic-derived series $\text{הַסְּמִיק, הַסְּמִיק, הַסְּמִיק, הַסְּמִיק, הַסְּמִיק}$ does not refer today to a specification of 'red' = 'blood-red', as suggested (p. 85). Rather, this notion is signified by the hyponymic הָאֵם itself.

הַטְּמִיק means simply 'become red' and is mainly used in a syntagm with פָּנִים (face), or even without פָּנִים, meaning 'to blush'.¹⁹

On the other hand, this phenomenon of rejection is, of course, a by-product of the process of expansion. The many additional terms that have entered the language since have sometimes supplanted the proposed words, while at others segmented further the net of term-bound areas within the sectors themselves or across them. The extent to which Hebrew colour terminology grew over the intermediate years can be gleaned from consulting the list in the Rabin-Raday *Thesaurus* (from now on "list B"),²⁰ while a few more illustrations and observations concerning the tendencies of the לְשׁוֹנָנוּ list (A) and the suggestions incorporated in it seem to be in order at this point.

הַכָּל = *hellblau, Himmelblau* (A, p. 87) is not often heard nowadays in colloquial speech. The substitute employed is כָּחַל (p. 86), together with an adjectival modifier (כָּחַל בְּהִיר) or a nominal modifier (כָּחַל שְׁמִים). Otherwise, the colour is simply referred to as the colour of תְּכֵלֶת. In other words, כָּחַל and אֵכָל are felt to belong to the same non-linguistic basic category. Hence, the most obvious mode of differentiation between them - that of using two separate monolexemic terms, with or without modifiers - is only rarely practised in common speech.²¹

List A follows biblical and MH sources in prescribing the employment of the Pi. theme for naming the activity of painting into a certain colour, and extending it to all basic terms and to some secondary ones (אָדָם, סִמָּק - p. 85; לִבּוֹ, כָּחַל, יָרֵק - p. 86; תְּכֵלֶת, שָׁחַר, צָהָב - p. 87). In fact, this recommendation seems to have been rejected. In practice the verb צָבַע Qal - together with the term for the colour referred to (in the pā'ol form) and with the prepositions ל or ב affixed to the latter - is commonly prevalent: צָבַע (בְּ) אָדָם, צָבַע (בְּ) יָרֵק (or לִירֵק, לְאָדָם, etc.). This, then, is an illustration of the rejection of a traditional, compact pattern in favour of a compound which is possibly influenced by foreign modes of expression. Similarly, syntagms like נִעְשָׂה יָרֵק, נִעְשָׂה יָרֵק are much more common than single forms such as the proposed הִתְיָרַק (p. 85), הִתְיָרַק (p. 86) - although הִתְיָרַק (p. 85) does feature in the language.

In list A קָהָה (לִבּוֹ קָהָה) = *stumpfweiss*, p. 86) and גְּבֵהָ (אָדָם גְּבֵהָ = *hochrot*, p. 85) are proposed as modifiers for

brilliance/saturation designations. These have not been accepted. On the other hand, חֲלָשׁ, חֲזָק (not included in the list) are often heard in this context. Nominal syntagms of the adj. modifier + colour term, or colour term + name of object (in the construct state) are easily generated, thus adding continually to the stock of more or less permanent colour terminology.

The few observations presented above deal chiefly with processes that are fairly normal in the life of a language. The disappearance of terms and the substitution of others for them is inevitable whether the terms stem from organic growth or are the fruit of conscious invention. Far more important is a basic difference between the at least partially prescriptive list (A) and actual practice. While the first speakers and teachers of Modern Hebrew always sought to exclude foreign words from the renewed language, their wish has not been fulfilled. As in other fields, foreign colour lexemes - usually those appearing in more than one European language - have never been absent from current speech, even when original Hebrew terms were potentially available in monolexemic formations or in syntagms of the types described above. So much so that some of these terms came to be 'legitimized' by respected Hebrew dictionaries. In Rabin-Raday²² (list B) we find, among others, טֵינִינְאֵנִי (after the colour used by the painter Titian) under the heading אֲדָם (p. 868); בֶּזֶז = beige under חָגֵם (p. 869); טֶרֶה קוֹטָה (p. 869); חֲקִי (khaki), טוֹפֶז = topaz and כְּלוֹרוֹפִּיל = chlorophyll under זֶרֶק (p. 869); טוֹרְקִיז = turquoise under פֶּחַל (p. 869), and so forth. There is a definite tendency to use foreign elements as designators for colour properties, whether on their own or as part of a syntagm, in their original form or in a Hebraized form. In other words, the common practice which the compilers of list A (1935) intended to hinder proved to be necessary in at least some cases. Hence, these terms are even 'legitimized', or at any rate grudgingly tolerated. Again, this tendency is, of course, not unique to the colour field only, but characteristic of Modern Hebrew vocabulary in almost every field and/or level of speech.

To return to the two lists themselves. Under the heading צבע, which introduces list B, we first find the terminology

referring to the activities of painting and dyeing in general (pp. 867-868) that is analogous to the same section in list A (pp. 83-85). Then follow terms describing actual colours. These are arranged in alphabetical order under primary headings (אָפּוֹר, אָדוֹם etc.). When we compare the two, the quantitative difference between them is immediately apparent. List B is so much more voluminous than its earlier counterpart. This cannot be attributed to the growth of the language during the intervening years only. It must be borne in mind that the *Thesaurus* (list B) is a diachronic multi-level compendium, not a dictionary of spoken Hebrew. Many forms there may be unknown, or seem obscure, to the common speaker; alternately, they exist within the realm of formal diction without functioning on the standard level. In a sense, then, אָרצֶר הַמַּלִּים presents us with a list that belongs to the 'competence' level, while no adequate indications for the 'performance' status of single items is actually supplied. Therefore it is not easy to draw specific conclusions in regard to colloquial speech - this will require controlled field work - apart from a few additional observations that are pertinent to our subject.

1. The productive tendency - the creation of new colour terms on the basis of ones that already exist in previous strata of the language - is still prominent (list B, p. 868: אָרְגָמָנִי < אָרְגָמָן).
2. Although the traditional $\bar{p}a\bar{o}l$ pattern is retained whenever possible (especially in the case of primary terms), another popular structure is that of a nominal form - in some cases, the name of an object which characteristically exhibits the colour referred to - to which the gentilic ending /i/ is added. Thus אָרְגָמָנִי (above), נְחֹשֶׁתִי (< נְחֹשֶׁת = 'copper', 'brass'), and so on.
3. In biblical Hebrew the majority of colour lexemes are either nominals which may function adjectivally as modifiers, or verbs. In MH we already find אָדָם with the approximate meaning 'redness', and there are other nominal lexemes conveying the abstracted quality of 'redness', such as אָדָמִיּוּת.²³ In our list B there are many more terms that refer to the quality of the colour itself rather than to the colour quality of the thing/object described. Thus from אָדָם, in addition to אָדָמִי, we have also אָדָמִיּוּת,

אֲדָמָה, אֲדָמָה, אֲדָמָה (p. 868).

While the new verb formations follow the usual models of Qal, Pi., and so on, new nominal patterns are utilized for filling areas which are unoccupied in biblical Hebrew.

4. In both A and B, and in contradistinction to biblical usage, there appear many syntagmatic expressions which function as designations of single extra-linguistic colour concepts. These belong mainly to two types: (a) colour terms + an adjectival of a general modifying character, and that for the specification of saturation/brilliance or chromaticity, or (b) a construct - a colour term + a lexeme denoting an entity which is typical of the colour evoked. The comparative structure (אֲדָמָה - list B, p. 868; פֶּעִיר הָרָקִיעַ, p. 869) is documented too.

5. As mentioned above, the inclusion of foreign terms in list B should be understood as proof of their popularity.

To conclude: the process of expanding the colour terminology both by utilizing the sources and by borrowing and adapting terms from other (modern) languages continues apace. The enormous difference in bulk between the catalogue of colour lexemes in biblical/MH on the one hand, and Modern Hebrew on the other, is an adequate indication - although only one of many others - for the difference in character and in technological achievements of the societies which used, or use, Hebrew as a means for daily communication.

VI NOTES

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NOTES

Part I

A

1. Optical Society of America (1953), 220.
2. *Ibid.*, 45; R.M. Evans, *An Introduction to Color*, 77.
3. Evans, *op. cit.*, 59.
4. *Ibid.*, 77.
5. Optical Society of America, 12f.
6. *Ibid.*, 45.
7. M.D. Vernon, *The Psychology of Perception*, 219-220.
8. *Ibid.*, 219.
9. H. Dürbeck, *ZDMG* 118 (1968), 23 (quoting E. Hellmig and D. Katz).
10. Vernon, *op. cit.*
11. *Ibid.*, 92-93.
12. Cf. II, B.O., p. 49ff.
13. E. Ullendorff, 'Is Biblical Hebrew a Language', *Bulletin of the School of Oriental and African Studies* XXXIV (1971), 241.
14. S. Ullmann, *Semantics: an Introduction to the Science of Meaning*, 125.
15. J. Lyons, *Introduction to Theoretical Linguistics*, 402-404.
16. S. Ullmann, *Principles of Semantics*², 183-248.
17. For a more detailed description of צֶהַב, see II, B.5. For the description of צֶהָבִי and its derived forms in MH, see III, B.5.
18. BDB, 843; KB, 795; Ben Yehuda XI, 5402.
19. So KB, 795; Qimhi, ספר השרשים, 614; for a textual occurrence see Tos. Neg. 1:2.
20. E.g. Jastrow, 1264.
21. Z. Ben Hayim, 'חקרי מלים א', *Tarbiz* 12 (1951), 75-77.
22. J. Barr, *Comparative Philology*, 125-151; and examples cited there and on 320ff.
23. Ben Hayim, *op. cit.*, 77; also M. Moresheth, לכסיקון הפועל, שנתחבר בלשון המשנה (Dissertation, Jerusalem, 1972), 187-188.
24. Ben Hayim, *op. cit.*, 75.
25. For a summary of the dimensions and the variables discussed here cf. Optical Society of America, 49-57, 221-293; G.A. Collier, *Language* 49 (1973), 245-248.
26. Optical Society of America, 57-58.
27. S. Skard, 'The Use of Color in Literature', *Proceedings of the American Philosophical Society* 90 (1946), 174.
28. W.E. Gladstone, *Studies on Homer and the Homeric Age*, III, 457-499.
29. L. Geiger, *Contributions to the History of the Development of the Human Race*, 48f.
30. Dürbeck, *op. cit.*, 25.
31. A. Maerz, M. Rea Paul, *A Dictionary of Color*, 8-11.
32. Vernon, *op. cit.*, 71.
33. *Ibid.*, 93.
34. *Ibid.*, 69.
35. B. Berlin, P. Kay, *Basic Color Terms: Their Universality and Evolution*, Appendix II, 134ff.
36. Gladstone, *op. cit.*, 457. Cf. also Skard, *op. cit.*, 165-166; Dürbeck, *op. cit.*, 24-25, B. Landsberger, *JCS* 1967, 139-140 (especially n.7).

37. There is no term for 'blue' in Hebrew, Akkadian, Aramaic, and Greek, to name only a few of the literary languages of the past.
38. H. Magnus, *Untersuchungen über den Farbensinn der Naturvölker* (Jena: 1880). His findings are summarized in Berlin-Kay, *op. cit.*, 139-146.
39. G. Allen, *Colour Sense* (London: 1879), reported in Berlin-Kay, *op. cit.*, 137.
40. *Ibid.*, 147-149.
41. Dürbeck, *op. cit.*
42. A.C. Heinrich, 'A Non-European System of Color Classification', *Anthropological Linguistics* XIV (1972), 220-227.
43. Dürbeck, *op. cit.*, 24-25.
44. P. Fronzaroli, *Studi Linguistici* I, 383-386.
45. Berlin-Kay, *op. cit.*, 139-149.
46. Vernon, *op. cit.*, 69-70.
47. R. Gradwohl in his *Die Farben im Alten Testament* recognizes the multi-dimensional nature of colour phenomena, and attempts to define lines of lexical development (esp. 89-98). His study is mainly etymological-comparative. He uses traditional "European" criteria of hue-discrimination. Apart from a few general statements, he does not deal with the complexities which colour sensation attributes impose on colour terminology. His methodology and his conclusions will be referred to in the appropriate sections of this study.
48. When the word 'primitive' was used on previous pages, the context was always that of representing the opinions of scholars who use it to signify cultures that are thought to be less technologically and materially advanced than our Western, post industrial revolution civilization. As for myself, I hesitate to use it because of the pejorative sense of "simple, rude; uncivilized or of rudimentary civilization" (*The Concise Oxford Dictionary*,⁵ 969), which is prevalent in colloquial - if not scholarly - discourse, and imparts a feeling of superiority. Therefore I opted for the more precise, if admittedly clumsy, modifying noun-phrase.
49. This example, as an illustration to the dimensions of colour nomenclature, is discussed by Fronzaroli, *op. cit.*, 384-385, where Guillaumont's opinion in his article in *Problèmes de la Couleur* is mentioned as well.
50. Berlin-Kay, *op. cit.*, 2.
51. V.F. Ray, *South-western Journal of Anthropology* VIII (1952), 252.
52. H.A. Gleason, *An Introduction to Descriptive Linguistics*, 4.
53. E. Nida, 'Principles of Translation as Exemplified by Bible Translating', 1.
54. E. Sapir writes: "... the 'real world' is to a large extent unconsciously built up on the language habits of the group. ... We see and hear and otherwise experience very largely as we do because the language habits of our community predispose certain choices of interpretation" - quoted in B.L. Whorf, 'The Relation of Habitual Thought and Behaviour to Language', in: *Language, Thought and Reality* (1956, ed. J.B. Carroll), 134. In another article, 'Language, Mind and Reality', Whorf summarizes an example by saying, "... we all, unknowingly, project the linguistic relationships of a particular language upon the universe, and see them there ...". (262).

55. Berlin-Kay, 5.
56. See criteria for the classification of biblical colour terminology-II, A.
57. Berlin-Kay, 2.
58. *Ibid.*, 17-36.
59. *Ibid.*, 16-17.
60. *Ibid.*, 36-41, with examples.
61. J.H. Hill, K.C. Hill, 'A Note on Uto-Aztecan Colour Terminologies', *Anthropological Linguistics* XII (1970), 231-238.
62. D.L. Snow, 'Samoan Color Terminology: a Note on the Universality and Evolutionary Ordering of Color Terms', *Anthropological Linguistics* XIII (1971), 385-390.
63. Heinrich, *op. cit.*
64. J.A. Frisch, 'Mohawk Color Terms', *Anthropological Linguistics* XIV (1972), 306-310.
65. H.B. Broch, 'A Note on the Hare Indian Color Terms', *Anthropological Linguistics* XVI (1974), 192-196.
66. G.A. Collier in a review of *Basic Color Terms*, *Language* 49 (1973), 245-248.
67. See, for instance, Frisch's article (note 64). Questions concerning the validity of the system - as defined in the book, and without modifications - are raised by Snow (note 62) and Hill and Hill (n.61).
68. Although, strictly speaking, a detailed structural study of the colour field in cognate languages lies outside the scope of this study.

B

1. E. Ullendorff, *Bulletin of the School of Oriental and African Studies* XXXIV (1971), 245.
2. For the problem of *plene* and defective spelling cf. A. Murtonen, 'On the Interpretation of the *matres lectionis* in Biblical Hebrew', *Abr. Nahrain* XIV (1973-1974), 66-121, and the literature cited in the notes thereof.
3. Ullendorff, *op. cit.*
4. C. Rabin, מלים כוודיות, *Enc. Miq.* IV, 1069.
5. Ullendorff, *op. cit.*, 253-254.
6. For the status of Mishnaic Hebrew (MH) *vis-a-vis* Biblical Hebrew, see part III.
7. Fronzaroli, 'Struttura dei Colori', 385.
8. CAD, A, 300ff.
9. Fronzaroli, *op. cit.*,
10. Ullendorff, *op. cit.*, 246ff.
11. BDB, מָצָה, 641.
12. Gradwohl, *Farben*, 90-91.
13. See, for instance, lists of Mishnaic lexical innovations (other contemporary Hebrew sources excluded) in C. Albeck, מבוא למשנה, 134-215; C. Rabin, מלים זרות, *Enc. Miq.* IV, 1070-1080.
14. Dürbeck, *ZDMG* 118 (1968), 26.
15. BDB, 10.
16. *Ibid.*, 71.
17. F.R. Palmer, *Semantics. A New Outline*, 91-97. Fronzaroli, *op. cit.*, 378-380.

18. Palmer, *op. cit.*, 49. A discussion of the scheme follows on pp. 49-51.
19. N.H. Tur-Sinai, *הלשון והספר* (Jerusalem: 1951), 387.

C

1. F. de Saussure, *A Course in General Linguistics*, 65-70.
2. F.R. Palmer, *Semantics*, 26.
3. Berlin-Kay, *Basic Colour Terms*, where 'term' is used throughout the study.
4. de Saussure, *op. cit.*, 65.
5. Palmer, *op. cit.*, 30.
6. *Ibid.*, 30-34.
7. E.A. Nida, 'A System for the Description of Semantic Elements', *Word* VII (1951), 2-3.
8. Lyons, *Introduction*, 196f.; Palmer, *op. cit.*, 37-39.
9. Lyons, *op. cit.*, 197; Palmer, *op. cit.*, 39.
10. Ullmann, *Principles of Semantics*, 157; see also survey by S. Ohman, 'Theories of the "Linguistic Field"', *Word* IX (1953), 123-134, and Ullmann's discussion of the concept of 'fields', *op. cit.*, 152-170.
11. T. Donald, 'The Semantic Field of Folly in Proverbs, Job, Psalms and Ecclesiastes', *VT* XIII (1963), 285.
12. Thus also Ohman, *op. cit.*, 134.
13. *Principles*, 254-256.
14. Fronzaroli, 'Struttura dei Colori', 382.
15. BDB, 850.
16. Ullmann, *op. cit.*, 254-265.

D

1. In *Oudtestamentische Studien* XIX (1974).
2. לשוננו XXXII, 405.

E

1. As a matter of fact, even group 4 is more 'indirect' than 'direct', in the sense that it does not include terms which refer to natural colour phenomena, but to man-made appearances of colour. Characteristically, many names for dyes have a double reference: to the dye, and to the material that is habitually treated with that dye.

Part II

A

1. Berlin-Kay, 6-7.
2. In contradistinction to 'form' or 'function' words; cf. Palmer, *Semantics*, 37.38.
3. Active verb forms are listed as primary colour terms when they share the same consonantal root with the primary nominal form from which they are derived (e.g. **אָרֶם***, **הַתְּאֵדִים***, **הַתְּאֵדִים***, immediately after **אָרֶם**). It is clear that because these verbs are denominatives, they are genetically secondary. On the other hand, they carry the wide reference of the nominal form, and thus belong with it. The Pu. form **מֵאֲדָרִים** functions as a nominal, is limited in its application,

and its reference is possibly narrowed to 'dyed red' (BDB, 10). Therefore it was excluded from the group of **אָרם**-verbs under the 'primary' label.

4. 'Dead' in the sense of 'not being used for daily communication'. For the problem of the "life" or "death" or Hebrew from 200 A.D. to its "revival" at the end of the 19th century, see a recent article by J. Fellman, *Anthropological Linguistics* XV (1973), 250-257, and literature cited there.
5. See Section I, B.a.
6. *Ibid.*
7. Fronzaroli, 'Struttura dei Colori', 382.
8. For an analysis of the construction **חַרוֹץ יָרֹקֶק** (when the first member of the combination is the qualifying, and not the qualified element) and similar instances see under **יָרֹקֶק, יָרֹקֶק** - II, B.4.
Cf. II, C.0.
9. Cf. II, C.0.
10. Gradwohl, *Farben*, 4. Cf., however, II, B.2.0.1.

B

B.0

1. Cf. II, A.1.
2. The following lexemes are excluded from the above count:
 - a. **לָבָן אֲדָמָה** (Lev. 13:19, 24, 42, 43), which seems to belong to the tertiary layer of colour notions, and which will be discussed there. The same applies to **לָבָן** in the syntagm **כֹּהֵן לְבָנָה** (Lev. 13:39).
 - b. **מֵאֲדָמָה** (in Nah. 2:4, and 6 times in Ex. in the syntagm **עֵרֹת אֵילִם מֵאֲדָמָה**) - because this passive formation is of secondary nature and functions as a qualifier which appears - in all instances but one - in one and the same syntagm. Therefore it is not considered a primary term.
 - c. **שָׁחֹר** (Lam. 4:8), be its original reference what it may, is first and foremost a name designating a certain substance, not a colour notion. Like **שֵׁלֶג, חֹלֶב, זֵיֵן** in other instances, it strengthens the colour allusion of **חֹשֶׁךְ** (*ibid.*) but does not create it. The synchronic existence of **שָׁחֹר(וֹ)** in the language also argues against accepting **שָׁחֹר** (like **יָרֹקֶק**, in some instances; see under **יָרֹקֶק**) as a direct colour term.
3. For the implied - although not stated - analogy of **לָבָן** to **עֵינֵי הַבְּלֹלָה**, by juxtaposing Ex. 16:31 and Num. 11:7, see II, B.2.4.
4. The point of departure for the description of colour terms are lexemes that are used in order to convey a direct colour sensation. Until, and if, another connection will be established for such groups as **שָׁחֹר - שָׁחֹר; דָּם - אָדָם, אֲדָמָה** the non-direct 'colours' will be considered as 'derived terms' although, etymologically and semantically, this may perhaps emerge as incorrect in a detailed analysis of each of these lexemes. The terms 'derived', 'derivatives' are here employed to denote secondary formations that share the consonantal skeleton of the primary term (that is, the root), together with variations of the vowel patterns, or the addition of certain consonants either as preformatives or as aformatives.

5. The division into a 'physical' group and an 'abstract' group should be understood as:
 - i. 'physical', terms that denote objects which may be perceived by the (human) senses.
 - ii. 'abstract', terms that denote entities which cannot be directly perceived by the senses alone, but have to undergo a cognitive filtering process.

In other words, the division is that of 'concrete' and 'figurative' use of language, without using these over-worked terms, but also with no adequate new catch-words to head the old categories; hence the inverted commas.
6. Dan. 11:35 (Hif.?), 12:10 (Hithp.) and Ps. 51:9 (Hif.) are actually connected with persons; however, the verbs are linked to terms that, in these instances, refer not to persons *per se*, but as sinners, that is, to people of a certain moral or ethical state. As such they belong under this category rather than the first one (i.e., 'physical', human). For the non-colour - but colour-derived - reference of this usage see under **לָבָן**, II, B.2.8.
7. In other words, as far as 'hair' is concerned, there is an appositional (achronistic) set of **שָׁחַרְרִי - אֶדְמָנוּי - לָבָן**. As for skin sores (or lesions), the apposition there is: **לָבָן - אֶדְמָנוּ - אֶדְמָנוּ - לָבָן**. In the latter case, then, three levels (from the primary to the tertiary) of colour lexemes are represented.
8. See discussion of **צָהָב**, **זָהָב** under 'Secondary Terms', II, C.2.2.
9. Fronzaroli, 'Struttura dei Colori', 380.
10. Gradwohl, *Farben*, 23, where **צָהָב** follows **אֶדְמָנוּ**, **אֶדְמָנוּ**, **אֶדְמָנוּ**, and their derivatives as a term for some kind of 'red' colour.
11. Fronzaroli, *op. cit.*, 384.
12. Gradwohl, *op. cit.*, but see Blau, **לְשׁוֹנֵנוּ XXXII**, 405, in a review of Gradwohl's work; and under **צָהָב** (II, B.5.).
13. Cf. II, D.1.1.
14. **מַעֲרֵב** in its context is of dubious status, as pointed out by BH³, both grammatically and referentially; for further discussion, see under **מַעֲרֵב** (II, C.5.).
15. II, B.4 and C.4.
16. *Op. cit.*, 385. The opposite view is expressed by Blau, *op. cit.*, 403.
17. For illustrations of this process see figures 4-10 in Berlin-Kay, 17-22.
18. Fronzaroli, *op. cit.*, 387.
19. Cf. also Gradwohl, *op. cit.*, 52.

B.1

1. All instances will be discussed in the order in which they appear in the Hebrew OT, nominals dealt with before the verbal occurrences connected with them, on the basis of the assumption that colour-denoting verbs are normally denominatives in origin. This assumption is borne out by the fact that - even after allowing for the arbitrariness of textual preservation - the number of nominal forms referring to colour exceeds the number of verbal formations. As far as

this semantic field is concerned, it would seem that stative phenomena are usually defined by a compact unit (i.e., a single lexeme) before the process or the activity is similarly delineated.

2. BDB, 9f.
3. KB, 12f.
4. Vol. I, 29.
5. The various occurrences were examined according to the editions of Sperber, Diez Macho (*for Neophyti I*), and מקראות גדולות (Makor, Jerusalem 1973).
6. For the translation of each OT occurrence into Greek and Latin see Gradwohl, 7ff. *passim*.
7. Gradwohl in his summary to the "Rot" section, 26-27.
8. Berlin-Kay, 13.
9. These attempts will be discussed under אָדָם, הָאָדָם, אֲדָמָה. The referential connection (as distinguished from the etymological one) between אָדָם and הָאָדָם will be touched upon under 1.1 (Gen. 25:30) and under 1.3 (2 Ki. 3:22) of this section.
10. Genesis, ICC, 361-362.
11. A. Dillmann, Genesis, 320-321.
12. T.H. Gaster, Myth, Legend, and Custom in the OT, 368, n.13.
13. C.J. Ball, Genesis, 80.
14. Ibid.
15. So also Gradwohl, 7.
16. Sperber, I, 38; מקראות, I, 63.
17. Blau, לשוננו XXXII, 403.
18. D. Daube, Studies in Biblical Law, 191-196.
19. G. Henton Davies, Genesis, 209-210, cites Daube's theory and seems to accept it.
20. G. von Rad, Genesis, OTL, 261 (though cautiously).
21. W.H. Bennett, Genesis, Century Bible, 265.
22. BDB, 727. So all commentators, from the ancient Versions to Jewish medieval commentators - Rashi, Qimḥi and others - and modern scholars.
23. Jastrow, 536 (טליופחין), 1046 (עדשה); and he quotes B.T. Ab. Zar. 38b, where the practice of boiling lentils in vinegar or in water is discussed.
24. Gradwohl, 7.
25. H. Gunkel, The Legends of Genesis, 57.
26. Gradwohl, 9.
27. N.H. Snaith, Numbers, CB, 270-271.
28. Snaith, *op. cit.*, cites material reported by Frazer, The Golden Bough, II, 142, 254-311.
29. G.B. Gray, Numbers, ICC, 248.
30. Ibid.; for similar rites and for the passage in general see 241-247.
31. Berlin-Kay, 17.
32. For instance: בו בלילן ילדה פרתו פרה אדומה ושקלו לו כל ישראל משקלה זהב.
מעשה שנצטרכו ישראל לפרה אדומה ולא היו מוצאים ואיז' מצאו אותה אצל עכו"ם אחד.
33. Gradwohl, 9. See, for instance, Sifre for Numbers (ed. H.S. Horowitz, 1966, 152); אן תמימה לאדמימות... תמימה תמימה. כשהוא אומר אשר אין בה מום הרי מומים אמורים הא מה ת"ל למומים. משנה תורה, תמימה תמימה לאדמימות. So also Rambam, (Jerusalem, 1962; Comm. by M. Reich, 119): זה שנאמר בתורה תמימה תמימה לאדמימות.

34. Gray, *op. cit.*
35. Cf. Rashi, Qimhi, J.A. Montgomery (*Kings*, ICC, 361), J. Gray (*I and II Kings*², OTL, 489). They rationalize the improbable reasoning of the text - how can the water be bloody-looking by merely reflecting the sun rays? - by assuming that the flood waters possibly carried reddish mud, or sandstone; however, all commentators agree that the Moabites were deceived by the combination of the two elements: a sudden flood, and its strange colour (Montgomery, *op. cit.*, 362, even considers a mirage!).
36. Gray, *op. cit.*, 480f.
37. Gradwohl, 4-6.
38. *Ibid.*, 5.
39. CAD, III, 79.
40. Montgomery, ICC, 362, cites, and marks as "wrong", the omission of פָּתַח in LXX^L.
41. Gradwohl, 8.
42. *Ibid.*, 27.
43. C. Westermann, *Isaiah 40-66*, OTL, 380-381.
44. So also Ibn Ezra to this verse. He observes laconically לִי לִלְבוּשׁ נֹסֵף.
45. So Skinner, Cambridge Bible, 196. T.K. Cheyne, *Isaiah*, mentions the following emendations to v.1: instead of מִאֲדָרִים read מִצִּדִּים; for מִבְּצֹר read מִבְּצֹרָה (so also BH³) - but rejects them as unnecessary (162). "As he points out, the alliterative element is probably a by-product of the text, and should not be carried too far. Westermann, *op. cit.*, 381, also rejects the emendation, claiming that there are no compelling grounds for the alteration, and if we accept it we lose the exact reference to the actual scene of events. Gradwohl, 10-11, does not accept the correction either.
46. Cf. II, D.1.4.
47. I.e., the treading of the wine press as a recurring simile for YHWH's action in judgement - Joel 4:13; Lam. 1:15; and, in the NT, Rev. 14:19, 19:15 - so Westermann, *op. cit.*, 382.
48. Gradwohl, 8.
49. Pines, *Enc. Miq.*, VI, 665.
50. As in מִקְרָאוֹת גְּדוּלוֹת.
51. Fronzaroli, 'Struttura dei Colori', 379.
52. Herszberg, ZDPV 69, 177 - as noted in אֲרֻצֵּי לְשׁוֹן הַמִּקְרָא, I. 32.
53. G.H. Smith, *Twelve Prophets*, 278, 298.
54. Gradwohl, 8.
55. H.G. Mitchell, *Zechariah*, ICC, 119.
56. *Ibid.*, 119-121.
57. (for 1:8). "עַל סוֹס אָדָם כִּכָּה רָאָה וְאִין צוֹרֵךְ לִבְקֵשׁ לִמָּה אָדָם".
58. Mitchell, 179 (for v.6).
59. G.A. Smith, *Twelve Prophets*, 276; Mitchell, *op. cit.*, 116.
60. These terms will be discussed under the 'secondary' and 'tertiary' headings, where attempts to clear up the difficulty of the lack of אֲדָמִים in 6:6-7 - and the textual problem of בְּרִידִים אֲמִים (v.3) - will be referred to.
61. M. Dagut, *A Linguistic Analysis of Some Semantic Problems of Hebrew-English Translation*, 20ff.
62. כָּתָם פָּז (in BH³ there are two suggestions for emendation: to read, following the LXX, כָּתָם וּפָז; for some reason, this regular hendiadys construction seems more acceptable; or to read כָּתָם מִפָּז (as if the מ was omitted by haplography)

will be discussed under (Indirect) Allusions to Colour. The last part of v.11, שחרות כעורב (which, BH³ proposes, should be omitted on metric grounds, but whose status vis-a-vis the referential connotation of פז כתם should also be clarified) will be referred to under שחר in this section (Primary Colour Terms, B.3). Inasmuch as the two syntagms will be mentioned in this part (I.6), it will be done in general terms only, as analogies and background for צח וְאָדָם.

63. See under secondary terms subordinated to לָבָן - II, C.2.2.
64. Rashi, מקראות גדולות for this verse; Martin, G. Currie, *Proverbs, Ecc., and Song*, Century Bible, 335.
65. *Numbers*, 271 (to 18:7).
66. E. Ullendorff, *Ethiopia*, 126. Even Gradwohl, 6, hesitantly says that this might be the case.
67. Pines, *Enc. Miq.* VI, 665.
68. See summary to the לָבָן section in this chapter (II, B.2.9).
69. See discussion of לָבָן אֲדָמָה (II, D.1.2.).
70. For further discussion of v.11 see under שחר (II, B.3.1.2.).
71. MT פְּשָׁנִים.
 1Q Isa^a, as well as four Hebrew MSS, have פְּשָׁנִי, as is the case in the LXX, the Vetus Latina, the Syriac, and the V. G.B. Gray, *Isaiah I-XXIX*, ICC, 29, sees פְּשָׁנִים as pl. of פְּשָׁנִי, 'scarlet-clothes', and compares to בְּדִיִּים, 'linen-clothes', and Prov. 31:21 לְבָשׁ שְׁנִים. For the latter verse, however, BH³ suggests an emendation (because of the context - one would expect warm clothes to combat the cold, not colourful ones). In addition, here the final ם might have been a dittography of מְרַבִּדִּים, the first word of v.22. Also, many Hebrew MSS read here יְשָׁנִי. According to C.D. Ginsburg, *Later Prophets*, 2, the סְבִירִין for כְּשָׁנִים, Isa. 1:18, is יְשָׁנִי. On the grounds of the dubiousness of Prov. 31:21, the evidence of 1Q Isa^a and other Hebrew MSS, and the use of יְשָׁנִי as 'scarlet clothes' (in the plural, 2 Sam. 1:24, Jer. 4:30) it seems better to emend our instance to יְשָׁנִי.
72. BH³ has a suggestion to read וְאֵם, following many Hebrew MSS, and the Versions. Gray, *Isaiah*, 30, says this emendation is possibly called for, especially by analogy to the structure of vv. 19-20: אֵם (v.19)...וְאֵם (v.20).
73. Gradwohl, 9, 27.
74. BDB, 9.
75. GB, 13.
76. אוצר לשון המקרא, I, 32.
77. Gradwohl, 9.
78. Fronzaroli, 'Struttura dei Colori', 384.
79. For a discussion of חוֹלֵעַ and שָׁנִי see under II, E.2.1.
80. See sections II, B.2.0 and 2.1.1.
81. So, for instance, Ibn Ezra, who clearly states that the picture conveyed in v.18 refers back to רִחְצוֹ (16) etc., i.e., the possibility of repentance and a change in the present state of affairs.
82. Gray, ICC, 27-29.
83. *Ibid.*, 26-27.
84. So K; Q פְּכִס.

85. According to BH³, some words are perhaps missing here; indeed, as the verse stands, its second part - כִּי... עֵינֵינוּ - does not make much sense, although נָחַן בְּכֹס עֵינֵינוּ has become an (opaque) idiom in later Hebrew, meaning: loves to drink, or even habitually drinks. G. Currie Martin (*Proverbs*, Century Bible, 1908, 148) suggests something along the line of 'when it (the wine) is red, when it gives its colour in the cup'. Similarly McKane (*Proverbs*, OTL, 1970, 394): 'red wine sparkling in a cup'. The interpretation of the two above-mentioned scholars might, however, be based on the text itself, with עֵינֵינוּ explained as 'its (of the wine) appearance', the way it looks, in the cup. Furthermore, the problem of the subject of the כִּי... עֵינֵינוּ part is not solved: from the point of view of contiguity the grammatical subject should be לֵינֵנוּ, but the verb יִתֵּן is not usually applied as a predicative element to a non-animate subject. Disagreement in number excludes the בָּאִים and מֵאֲחֵרִים of v. 30. Perhaps we have an oblique subject here - whoever is fascinated by wine, his fate would be ... (v. 32ff.). In general the passage, with its changes of pronouns and grammatical number, is far from smooth, and reads like a collection of random sayings arranged together because of the subject matter (exaggerated wine drinking).
86. יהוהך בהולך does not make sense here. BH³: perhaps an addition from Song. 7:10 - itself an obviously corrupt verse - where it is proposed to correct the MT הוֹלֵךְ לְדוּרֵי הוֹלֵךְ וְדוּבֵב לְמִיִּשְׂרָאֵל דוּבֵב שְׂפָתַי יִשְׁנִים (subject - wine) - to הוֹלֵךְ וְדוּבֵב לְחִפֵּי בִשְׁפָתַי וְשִׁנָּיִם (BH³ *ibid.*).
87. Gradwohl, 10.
88. BDB, 10.
89. KB, 12-13. Similarly also Gradwohl, as above, and אוֹצֵר לְשׁוֹן הַמִּקְרָא I, 32.
90. C.H. Toy, *Proverbs*, ICC, 439, justly draws our attention to Isa. 63:1-3 (1.4).
91. C. Gordon, *Textbook*, Gloss., no. 483; G.R. Driver, *Canaanite Myths*, Glossary, 154.
92. CAD, III, 79.
93. So Currie Martin, 148; McKane, 394.
94. Ullendorff, *Ethiopia*, 126.
95. In BH³ there is a proposed emendation of נְזִירִיָּה to נְעִירִיָּה. A.W. Streane (*Jeremiah and Lamentations*, Cambridge Bible, 385) sees in נְזִירִיָּה a reference to the Rechabites (Jer. 35). The Targum retains the MT form. Although Rashi says (in his first comment): נְזִירִיָּה שְׂרִיָּה כְּמוֹ נֶזֶר וְכֹהֵן, he goes on to state that, in fact, the text mentions "real" Nazirites.
96. The combination אֲדָמָה עֵצִים מִפְּנֵינֵינוּ is problematic because of עֵצִים (for discussion of reference see below), its semantic reference, and its syntactic position within the utterance. עֵצִים is missing in LXX, and the Syriac has the equivalent of עֵצִים; V - *ebore antiquo*; and the Targum, within a fairly free paraphrase, סְמִיקוֹ חִיזוֹ (= their faces, appearance). In BH³ we find three suggested corrections: a. אֲדָמָה עֵצִים מִפְּנֵינֵינוּ; or b. אֲדָמָה עֵצִים מִפְּנֵינֵינוּ; or c. אֲדָמָה שְׂפָתַי מִפְּנֵינֵינוּ. I would suggest that to omit עֵצִים - following the LXX - should be sufficient, and would not impair the sense of the utterance. Gradwohl, (9-10) who tries to retain עֵצִים by comparing it to Prov. 15:30 (//לב),

16:24 (נפש) and Ps. 35:10, still has to define עצם in this particular context and to rearrange and correct the syntactic irregularity; as it stands, עצם is a hindrance rather than an asset for the understanding of אדם מפנינים.

97. Fronzaroli, 'Colori', 382.
98. Excluding Job 30:30 - עורי שחר מעלי - because here the basic lexical unit is ... שחר מ, and not שחר.
99. For צח, זכו see under subordinate לבן terms. (II, C.2.2).
100. Gradwohl, 10.
101. See שחורה אני ונאורה, Song. 1:5, under שחר, II, B.3.3.
102. Gesenius, 13.
103. A.W. Streane, *Jeremiah and Lamentations*, 382.
104. Y. Sukenik (Yadin), בשולי רשימת בשמים ושמןי משה בחרורה, *Tarbiz* XVIII (1947), 125-128.
105. C. Virolleaud, 'Ras Shamra 1179', *Syria* XXI (1940), 274ff. Cf. also von Soden, *AHW*, II, ad loc.
106. In *BASOR* 102 (1946), 7ff.

B.2

1. For the etymological relations and origins of the various lexemes in which לבן is manifested in various indirect forms see under the appropriate heading (II, F.1.1.2 and F.1.2.2.).
2. Gradwohl, 4, 34.
3. In work done in Oxford, 1976. Prof. Barr told me about Dr. Fenton's research into this matter in a letter dated 19th October, 1976. Later Dr. Fenton discussed it in greater detail. My thanks to both of them.
4. לבן in Pseudo-Jon. for Gen. 30:37, Hos. 4:13 - the equivalent of the Hebrew לבנה (see Ginsburger's edition) - is a loan, not an independent Aramaic form.
5. For חור derived lexemes, see Jastrow, *Dictionary*, 438, 440, 452; for חלב - *ibid.*, 464. The same applies to Syriac - see K. Brockelmann, *Lexicon Syriacum*, 223 - \sqrt{hwr} , 232 - \sqrt{hlb} .
6. Cf. Gordon, *Textbook*, Glossary: no. 862 for hlb - 'milk'; no. 1357 for lbn . *II* (lbn . *I* in his list is the root underlying the lexeme for $LBNT$ = 'bricks'). Also: Grondahl, *Personennamen... aus Ugarit*, 154 (for \sqrt{lbn}), 135 (\sqrt{hlb}).
7. Cf. E.W. Lane, *Arabic-English Lexicon*, II, 623.
8. CAD, IX, 8f. ($labanu$ A. = 'make bricks'), 10f. ($labanu$ B. = 'prostrate').
9. F. Delitzsch, *Assyrisches Handwörterbuch*, 649.
10. *AHW*, II, 857.
11. *Ibid.*, I, 309; CAD, VI, 36. Gordon, *Ugaritic Textbook*, glossary, no. 862, quotes a Neo-Assyrian $h\bar{l}pu$ = 'milk', but states that this is a borrowing from West Semitic.
12. Cf. I, B.a and B.b.
13. כתלג (Dan. 7:9), although of a different structure, is the Aramaic equivalent of the Hebrew metaphor.
14. II, C.2.
15. For the identification of biblical צרעת see E.V. Hulst's article in *PEQ* 107 (1975), and J.F.A. Sawyer's note in *VT* XXVI (1976), 241-245.

16. For Ex. 16:31 see B.2.4.
17. Cf. II, B.2.3.
18. Could it be significant that 'milk' is not chosen as one of the specifications of **לבן** in this passage?
19. BH³: **הנקדים** (with LXX); in vv. 32, 33 **נקדים** and **טלואים** appear as a pair (in v. 32 the pair appears twice, but, perhaps the first occurrence should be omitted, cf. BH³).
20. Diez Macho, I, 197.
21. Jastrow, **שומא** II, 1536; **טומא** II, 966.
22. Cf. Jer. 13:23. **היהפך כושי עורו ונמר חברבורתו** - where the meaning of **חברבורות** - whether 'spots' or 'stripes' - depends on the identification of **נמר**.
23. In his commentary, 12.
24. BDB, **עקד**, 785.
25. Skinner, *Genesis*, ICC, 392.
26. BDB, 856; Jud. 6:37 **גִּזַּת הַצֶּמֶר** - is the clearest occurrence in which **צמר** retains its basic meaning.
27. Sperber's ed., III, 18. Similarly also in Dan. 7:9, **ושער ראשו כעמר נקא**, again employing the literary convention of **שֵׁלַג // צֶמֶר (נָקִי)**.
28. The text reads: **חסר התאר פירושו כצמר לבן ונקי וכן הנותן שלג כצמר (תה' קמ"ז 16) וכמוהם בחסרון התאר...ופירש אדוני אבי ז"ל אם יהיו חסאיכם כשנים שאינו אדום מאד כשלג ילבינו אכפר על עונותיכם. ואם יהיו אדומים מאד כתולע אז יהיו כצמר שאינו לבן מאד כמו השלג.**
29. Elijah ben Salomon Zalman, whose commentary appears in some editions of **מקראות גדולות**.
30. Gradwohl (p. 57) presents the data but does not draw any conclusions.
31. BH: delete **ברדים** as a gloss to the parallel **אמצים**, and so also for v. 6c **(והברדים יצאו אל ארץ תימן)**. For the position of vv. 2-3 *vis-a-vis* vv. 6-7 see commentaries and Fronzaroli's article (mentioned in section B.1.5 of this chapter) and notes thereof.
32. For **אֶמֶץ*** and **בָּרִד*** cf. II, C.1.3.
33. See, for instance, commentaries mentioned in B.1.5; and Abrahanel's commentary for ch. 6 (Vol. IV, p. 214).
34. G.E. Post in J. Hastings' *Dictionary*, II, 418.
35. R.H. Charles, *The Revelation of St. John* ICC, Edinburgh, 1920, I, 162, with references, quotations, and a short discussion of the Zechariah passages (pp. 162-163).
36. For a summary of various interpretations see B. Oppenheimer, **חזונו זכריה**, 71-85.
37. Skinner, ICC, 392; for **לבנה** see under 'Indirect Terms', II, F.2.2.1.
38. So Skinner, *op. cit.*; von Rad, OTL, 293; Bennett, *Genesis*, 299; Henton Davies, *Genesis*, 227.
39. BDB, 822.
40. Jastrow, 1205.
41. Skinner, *op. cit.*, regards it as superfluous - a variant or doublet.
42. BDB, 362. In Jo. 1:7 it appears as verb formations, **חָשַׁף** **הַלְבִּינו שְׂרִיגִיה** and in the same verse we read **חָשַׁף**.
43. While all instances of **לבן** are translated in the LXX by *leukē* and its derivatives, in V two terms are employed, *albus* and *candidus*. According to the *Oxford Latin Dict.* (Lewis and Short, 1958) *albus* is "lustreless white" (81), while *candidus* - "dazzling, brilliant white" (277; and

- candor*, 278); similarly also Simpson in the *Cassell's Dict.* (1964; for *albus*, p. 33). However, the two lexemes are used in such a way that an attempt to classify the two modes of translation under "brilliance/lack of brilliance" motivation is fruitless. Perhaps this can be attributed to the desire to introduce variety into the translation?
44. For the construct form לָבָן see G.-K., 93dd; Gradwohl, 35, n. 6, implies that the form is built as a noun. Against this see Blau, לְשׁוֹנֵנוּ XXXII, 495. As Blau himself states elsewhere (in his תּוֹרַת הַהִגָּה וְהַצּוּרִית), the boundaries between noun and adjective - in Semitic languages in general and in Hebrew in particular - are rather fluid (197). It is therefore surprising that Gradwohl restricts the nouns vs. adj. consideration to לָבָן, leaning on such a slender morphological basis. For the question of noun and adj., see Appendix, II, H.
45. לשון אודם כתר גומו: מְקִרְאוֹת, I, 116 (Venezia edition): שְׂרָשִׁים, 152.
46. Bacher, *Ibn Janah*, שְׂרָשִׁים, 152.
47. Qimhi, שְׂרָשִׁים, 248.
48. GB (1899), 249.
49. BDB, 314.
50. KB, 297.
51. *Genesis*, ICC, 525, although hesitantly.
52. *Genesis*, 299.
53. *Genesis*, 110.
54. Of modern scholars, von Rad (*Genesis*, 415) seems to be the only one to adhere to the "red/white" interpretation.
55. Which is the basis for the expansions of the Aramaic Targums: see Rashi's commentary for vv. 11-12, where he deals more with the T than with the Hebrew text; and Ibn Ezra for דָּם עֲנָבִים דָּם שִׂתְיָאִים: וְדָמָה לָדָם בַּעֲבוּר שִׂתְיָאִים (מְקִרְאוֹת)
56. S.M. Paul, *IEJ* XXV (1975), 42-44.
57. The pair חֲמָא/חֲלָב appears in Ugaritic literature too: see M.D. Cassuto, *הַאֱלֹהִים עֲנָה*, (1965), 26. In biblical literature it signifies not only abundance, but also lack of commodities apart from 'natural', 'wild' ones - see Isa. 7:22 and commentaries *ad loc.*
58. Am. 9:13, Jo. 1:5, Song. 8:2.
59. Which is secondary to Amos 9:13 - וְהִטִּיפוּ הַהָרִים עֲמִים וְכָל - הַגְּבֻעוֹת תִּתְמוּגְגֶנָה (Bewer, ICC, 141) and therefore demonstrates even more forcibly the principle behind the analogy in our verse (Gen. 49:12).
60. Gradwohl, 35; and opinions mentioned in nn. 8, 9, 10 and 11 thereof.
61. Dillmann, *Genesis*, 465.
62. Gradwohl, 4, 35.
63. Skinner, ICC, 525; and Gradwohl, *op. cit.*
64. So Gradwohl (p. 35), who cites the Versions and some bibliographical material (n. 10 *ibid.*); BDB, 151; GB, 140; KB, 168.
65. Kohut, *Aruch Completum* (Vienna, 1926), V, 10.
66. Gray, *Numbers*, ICC, Edinburgh, 1903, 105.
67. Rashi, מְקִרְאוֹת I, 166. Moreover, his task is made more difficult by his definition of כִּדְלָח, which he understands as 'crystal', a precious stone (*op.cit.*, 332, for Num. (11:7)). In his commentary he follows R. Assi, in Tal.Bab.Yoma, 75a.

68. ואנכי לא ידעתי - Ibn Ezra, מקראות I, 166, 332.
69. Gray, *op. cit.*, 106.
70. *Ibid.*, 105.
71. Although cognates, with the basic sense of 'brightness', 'shine', exist for both; see, for instance BDB, בָּהָק and בְּהָרָה, 97. The adjectival בְּהָרִיר (Job 37:21) is a *hapax legomenon* which appears in a difficult syntactic position - BH³ *ibid.* proposes an emendation to a verb form. Within its context it may be explained by בְּהָרִית = 'stains, flecks'. In later Hebrew, however, בְּהָרִיר was taken to mean 'brilliant', even 'transparent', 'pure' - Ben Yehuda, *Dict.* I, 469-470. In modern Hebrew it means either 'light-coloured' or - especially as modifier of 'skies', 'air', etc. - 'pure'/'transparent'/'bright'.
72. BDB, 673.
73. *Ibid.*, 705.
74. Snaith, *Leviticus and Numbers*, 92, presents G.R. Driver's opinion (in *DB*, 575b) that, following the Arabic cognate *ṣi'atu*, שָׂאָה should be defined as an inflamed (active) scar, that is, by its colour, not its texture. This, however, is hardly necessary: שָׂאָה might be light-coloured (לְבָנָה, Lev. 13:10) or inflamed (the colour of חֵי בשר, *ibid.*).
75. Gradwohl, 35.
76. Modifying בָּהָרָה and of the same status as שָׂאָה לְבָנָה (v. 19); צִרְעָה פְּרוּחָה = נגע לבן אדמדם; בָּהָרָה לְבָנָה אדמדמה או לְבָנָה (v. 24); צִרְעָה פְּרוּחָה = נגע לבן אדמדם; לְבָן (v. 42) - the latter is established, as some kind of לְבָן שָׂאָה הנוגע לְבָנָה; and similarly כְּמִרְאָה צִרְעָה עוֹר בָּשָׂר. (v. 43).
77. Gradwohl, 57.
78. *Ibid.*, 36.
79. Section B.2.0.2.
80. E.V. Hulst, *PEQ* 107 (1975), 103.
81. *Ibid.*, 95.
82. *Ibid.*, 103.
83. *Ibid.*, 98.
84. Noth, *Leviticus*, OTL, with detailed arguments, 103.
85. For instance Y. Kaufmann, תולדות האמונה I, 114-117, 127-128; M. Haran, תקופות ומסורות Tel Aviv, 1973, 183-200; J.M. Grintz, "מונחים קדומים בתורה כהנים", XXXIX (1975), 20-25, 163-181; XL (1976) 5-32; M. Weinfeld, באר שבע I, (especially pp. 127-128, 131-132, and literature cited there).
86. Although the usage of לְבָן as a blanket term denoting any pale colour in general persisted in MH times; and see Part III of this study, under לְבָן.
87. Which is the basis for Rashi's allegorical interpretation, מקראות IV, 321. See also Ibn Ezra, *op. cit.*, for the same verse.
88. C.D. Ginsburg, *The Song of Songs and Coheleth* (1861 = 1970), 413-414, with some relevant biblical and extra-biblical references.
89. Thus Gen. 41:42 (בגדי שש) and Esth. 8:15, as a symbol Joseph's or Mordechai's changed status, the priest's clothes, and so on.
90. See: Kassovsky, אוצר לשון התלמוד, VII, 16, for the relevant references.

91. A. Hurvitz, *HTHR* 60 (1967), 117-121, and also Grintz, "מונחים קדומים", *XXXIX*, 178-180.
92. For בָּגֵד cf. BDB, 93-94; KB, 107.
93. Gradwohl, 37.
94. Cf. II, B.2.1.1.
95. Cf. B.1.7 for a discussion of יָאִדִּימוּ.
96. See 2.8.
97. Gradwohl, 37; *ibid.*, 93, where both Duhm and Krauss are mentioned (note 8). In agreement with this opinion are the views advanced by: W.O.E. Oestlerley, *The Psalms* (1939), I, 271; C.A. Briggs, *The Book of Psalms*, ICC, II, 4.; M. Dahood, *Psalms 51-100*, AB, 1970.
98. M. Battenweiser, *The Psalms*. 1969 = 1938, 186-194; L. Sabourin, *The Psalms* (1969), 47; and A. Weiser, *The Psalms*, OTL, 1962, 402.
99. BH³ proposes חֲשֵׁפָה וְחֲשָׁף וְחֲשָׁלָה; a discussion of this point can be found in J.A. Bewer, *Joel*, ICC, 1911, 79.
100. Section B.2.2.
101. So Bewer, *op. cit.*, 77: "white gleam their branches"; 79: "show whiteness, grow white".
102. G.A. Smith, *The Book of the Twelve Prophets*, 1928, II, 412: "bleached are its branches".
103. BH³ proposes to emend אֲתָם וְלִהְיוּרָם וְלִלְבָן to אֲתָם וְלִלְבָן וְלִלְבָן.
104. G.-K., 53q., although לִלְבָן is recognized as a Hif. form. J.A. Montgomery, *Daniel*, ICC, 1927, 460, leaves the options open.
105. Sections 2.7.1 and 2.7.2.
106. Gradwohl, 38; Ben Yehuda, V, 2612 - but this is obviously on the basis of הִלְבִּין usage in MH.
107. G. Bergsträsser, *דקדוק הלשון העברית*, 478 - Hithp. verbs only rarely express a reciprocal-transitive sense when they are related to Hif. or to Qal forms of the same verb, rather than to Pi.
108. S. Morag, *כחב יר בבלי תימני*, ספר דניאל, Jerusalem, 1973. On the relevant plate (p. 149) the word is seen to be the Pi. infinitive. Morag discusses it on p. 38, where he defines the MT form as a Hif.
109. So in the Qumran War Scroll: ברור טהור מלובן (8.11), and even ברור לובן מאיר (8.10); Yadin, *מגילת מלחמה*, *בני אור בבני חושך*², 290, relates the description to our passage.
110. Ben Yehuda, V, 2612; Yadin, *op. cit.*, in a note to 8.11.
111. For בָּרַר = 'purify', 'select' 'polish' (Isa. 49:2) cf. KB, 156. For צָרָף = 'smelt', 'refine' and its derivatives: BDB, 864; KB, 817.
112. Cf. B.2.6. See also the discussion of שֵׁשׁ in section II, E.2.3.
113. So also Pines, *Enc. Mig.* VI, 669.
114. Cf. the NT., Matt. 17:2.
115. Gradwohl, 4,34.
116. *Ibid.*, 37.
117. BDB, לִבְנָה, 527.
118. *Ibid.* Even if לִבְנָה is a loan word in Hebrew, it is still generated from a לָבָן whose denotation is 'light coloured' the fact that this denotation no longer exists in the source language is no proof that it has never existed. The colour of sun-baked bricks - reddish-yellowish, very light, although not 'white' - would fit within our

definition of לָבֹן.

119. Berlin-Kay, *Basic Colour Terms*, 4, 27.
120. In Ex. 24:10, ... וְהָיָה הַלְּבָנָה כְּמַעֲשֵׂה הַלְּבָנָה הַזֶּה וְכַעֲשֵׂה הַשָּׁמַיִם. - where הַלְּבָנָה might be interpreted as 'light', among other possible explanations. However, because the word seems to be a construct form of לָבֹנָה = brick (So BDB, 527; KB, 472, has a 'flagstone', from Akkadian *libittu*), it will be discussed under the heading 'Indirect Colour Connotations'.

B.3.

1. So BH³.
2. BDB, 1007, lists שָׁחַר in Jo. 2:2 among other שָׁחַר = dawn occurrences, but says (in brackets): "al. blackness, // יָעֵן וְעֵרְפֹל".
3. Jastrow, 1551, 1552, 1559, 1703.
4. Gradwohl, 51.
5. Fronzaroli, 'Struttura dei Colori', 384, 388.
6. BDB, חֲשֵׁךְ, 364-365.
7. *Ibid.*, 871.
8. חֲשֵׁכִים (Prov. 22:29) appears in BDB (p. 365) under the reconstructed sub-heading (*חֲשֵׁךְ). Although the formation is that employed in biblical Hebrew for other colour terms, it is not exclusive to them. This, and the parallel לַפְנֵי מַלְכִים, exclude חֲשֵׁכִים from being considered a colour term.
9. Gradwohl, 51-52; in BDB, 1007, an Akk. cognate for שָׁחַר = 'coal' - *šūru* - is mentioned.
10. Gradwohl, 52, although on 59 he concedes that the usual Aramaic translation of שָׁחַר is אֹכֵם.
11. *Ibid.*, 51.
12. For שָׁחַר and its derivatives in Aramaic, see Jastrow, as in n. 3 *supra*; for אֹכֵם Jastrow, 25.
13. Tur-Sinai in Ben Yehudah, XIV, 7034-5, second column, n. 2; also cited in Pines, *op. cit.*, IV, 671.
14. Berlin-Kay, 4, 17.
15. The LXX to Job 30:30 has *eskotōtai megalos* to שָׁחַר; Gradwohl, 53, says that this translation is influenced by the rendering of מִשְׁחֹרֵר (Lam. 4:8). There is no conclusive evidence for this. However, there seems to be a genuine understanding that שָׁחַר in this instance is closer in reference to the concept of 'dark', 'become dark', rather than to 'black', 'become black'.
16. KB, 733.
17. For the textual problems of v. 31 - the need to elide אֵין - cf. BH³ and Gradwohl, 52.
18. Jastrow, 25, 64.
19. See note 16, 3.0.5 above; Guillaumont, 341.
20. Cf. also Lam. 4:7, 8.
21. So BH³.
22. BH³ proposes to emend כְּתָם כְּתָם to כְּתָם כְּתָם (following the LXX), or alternatively, כְּתָם כְּתָם.
23. See Lam. 4:1 יִשְׁנָה הַכֶּתֶם הַטוֹב זֶהָ, where זֶהָ and כְּתָם are employed as symbols of the (visible) property of brightness, in this case unnaturally tarnished.
24. Fronzaroli, 'I Cavalli', 593-602 (English summary of the article on 602).

25. Gradwohl, 53, states that שחורחַת, like ירִיק, אִדְמָדָם, denotes a lighter colour than its basic form (einen hellere(n) Farbton bezeichnet, also schwarzlich). Therefore, it is somewhat surprising that he translates שחורחַת as schwarz. The Aramaic T קְרִיחַת (from קִר), which he cites, displays the same wide range - 'dark', 'dull coloured', 'black' - as the Hebrew term שחור (Jastrow, 1317-1319).
 26. Cf. section 3.0.4.
 27. Also Qimḥi, שרשים, 762: וְהַשְׁחֹר הוּא הַפָּחַם.
 28. Gradwohl, 51ff.
 29. N. 13 above.
 30. Jastrow, 1548-1549.
 31. For שִׁיבָה see II, F.2.2.2.
 32. Berlin-Kay, 38.
- B.4.
1. BH³: זָחֹר (following Theodotion, the Aramaic T, V) instead of זָחֹר.
 2. Noth, *Leviticus*, OTL, 103-105.
 3. M. Dahood in his commentary to this chapter, *Psalms 51-100*, AB, 133-152; T. Gray, *JSS* XXII (1977), 1-26.
 4. So E.A. Leslie, *The Psalms*, 73 (following Schmidt); Weiser, *The Psalms*, OTL, 483; Dahood, *op. cit.*, 133. For a late dating: Briggs, *Psalms*, ICC, II, 96. For additional opinions see Gradwohl, 30, nn. 23, 24, 25, 26.
 5. C. Gordon, *Ugaritic Textbook*, Glossary, no. 1014.
 6. CAD, A, 300; H, 246; Landsberger, 'Über Farben', *JCS* (1967), 144.
 7. GB, 344; BDB, 438-439; KB, 406; Gradwohl, 27; Pines, *op. cit.*, 668.
 8. Fronzaroli, 'Struttura dei Colori', 384, 388.
 9. Albeck, מְבוֹא לַמִּשְׁנָה, 141.
 10. השם יִרְקוֹן מְקוּרָו כָּל הַנֹּרָא בְּצִבְעֵי מִלִּמְיוֹ שֶׁל הַנְּהַר - Z. Kallai, *Enc. Miq.*, III, 889.
 11. Although in KB it is derived from רִקְעָ (406) while, if derived from רִקְעָ, the toponym would seem semantically opaque; cf. under 'Indirect Terms', II, F.1.2.4.
 12. Gradwohl, 27-30.
 13. Although Gradwohl, 28, differentiates between יִרְקָ and יִרְקָ (on the basis of the different construct formations), there is no semantic reason to do so. See Blau in *לשוננו*, XXXII, 405.
 14. Cf. G.-K., 128r, for a definition and instances of "... substantives ... used to convey an attributive idea in the construct state before a partitive genitive".
 15. So, for instance (for Gen. 1:30), Bennett (p. 86), Henton Davies (129), and Spurrell (17) in their commentaries. Ibn Ezra for this passage states clearly: כָּל עֵשֶׂב וְכָל פֶּרִי עֵץ מוֹתָר לָאָדָם וְהָעֵשֶׂב לַחִיּוֹת וְלִכְלֵל רוֹמֵשׁ. In other words, he understands יִרְקָ as an equivalent of עֵשֶׂב. יִרְקָ = proper colour term, sees the shift as that of expansion, not narrowing, and dates it to the post-exilic period. I think that the passages quoted do not lend themselves to this line of interpretation.

17. Cf. BDB, 438; KB, 406.
18. BDB, *op. cit.*
19. KB, 403, and Gradwohl (p. 30), following BDB, KB, and Ben Yehuda (*Dict.* IV, 2153).
20. Gradwohl, *op. cit.*
21. N. 7 above.
22. Berlin-Kay, 18; see figure 6a.
23. Pines, *op. cit.*, 668.

B.5.

1. Berlin-Kay, 6; section II, A. below.
2. Ben Hayim, *Tarbiz* XII, 75-77; Moreseth, תפועל, 188, 190.
3. Gradwohl, 23.
4. Blau, לשוננו XXXII, 405.
5. Jastrow, 966.
6. Gradwohl, 23.
7. מקראות, 265, Berliner, 122.
8. Ginsburger, 193-194.
9. *Neophyti I*, vol. III, 81, 83.
10. Mentioned in Pines, *Enc. Mig.*, 670.
11. Jastrow, 1282.
12. Moreseth, *op. cit.*, and especially n. 2 (p. 190).
13. *Ibid.*
14. See Berlin-Kay, figure 6b on p. 19, which shows clearly that a term whose focus is our 'yellow', when it evolves, does so at the expense of the area previously classified under 'red'.
15. Pines, *op. cit.*
16. BDB, 843f.

C

C.1.

1. Gradwohl, 12-13, cites LXX, V, and T. Onkelos; Pines, VI, 668 lists the other Aramaic translations for ירקוק.
2. M. Neg. 1:2.
3. *Ibid.*
4. Which Gradwohl (13) and Pines, 665-666, do not take into account.
5. Yer. Sukk. III, 53d; M. Sheb. 6:1. Also: Sif. מצרע, 14:2.
6. מקראות I, 266 (for Lev. 13:49).
7. Although both he and Ibn Ezra agree that in Ps. 68:14 ירקוק is a diminutive and not an intensive form.
8. Qimhi, שרשים, 8: לב האדממות.
9. זה כפול לחסרון וכן שחרחרת ויש אומרים הפך הדבר (מקראות גדולות).
10. BDB, 10.
11. KB, 13.
12. GB, 11.
13. S. Moscati, *Comparative Grammar*, 79.
14. See, for instance, the list in לשוננו VI, 83-87 - where אדמם does not feature, but the model is utilized for the creation of other derived terms, such as צהב > צהבה, פחל > פחלה, לכננו > לכנה.
15. Guillaumont, "Problèmes", 345.
16. Whose conclusion is mentioned in Pines, *op. cit.*, 671.

17. Gradwohl, 14.
18. Pines, *op. cit.*, 666.
19. Z. Har-Zahav, "צורות ההקטנה וההגדלה", לשוננו I (1928), 127-144.
20. J. Zlotnik, "לירקוק אדמדם", לשוננו I (1928), 443-447.
21. Gradwohl (13) supplies a list of emphatic or duplicated forms conveying the idea of 'intensity' in cognate languages; these, however, have one double radical at the most. As such, their evidence for our problems is limited.
22. N. Shalem, "לשמות הצבעים בעברית", לשוננו IV (1931-2), 61-67.
23. *Ibid.*, 63.
24. Berlin-Kay, 150, point out that "As a color system introduces hue contrast, the importance of brightness does not diminish - the system simply becomes more complex"; for as emphasized earlier on the same page, "... brightness is a major dimension of contrast in all color systems". From the aspect of hue 'pink' is 'virtually identical' with the focus of 'red'. (*ibid.*).
25. Sections C.1.3, C.1.4.
26. Cf. C.3.1.
27. For BH³, Isa. 63:1 = מִבְּצֵר > מִבְּצֵרָה, מֵאֵדָם > מֵאֵדָם - cf. B.1.4, and notes thereto.
28. BDB, 10; KB, 11; אוצר לשון המקרא I, 32 - "dyed with siqrā"; Gradwohl, 10-11; Pines, 665.
29. Pines, *op. cit.*
30. Ibn Ezra to Ex. 25:5 (Fleischer's ed., p. 227).
31. M. Noth, *Exodus*, OTL, 199.
32. So Pines, *op. cit.*
33. This has been suggested for other verses as well, for instance Hos. 11:4 - כַּעֲלֹתוֹ אֹהֶבָה //... בַּחֲבִלֵי אָדָם (which renders the emendation of אָדָם to אִמָּת, cf. BH³, unnecessary). My thanks to Prof. Barr for pointing this out.
34. Gradwohl, p. 11, following Hess (*ibid.*, n. 68).
35. Noth, *op. cit.*, 201-202; Cassuto, *Exodus*, 326.
36. M. Haran, "המשכן: הדירוג הטכני החמרי", 33, n. 10.
37. Jastrow, 1009; Levy, *Wörterbuch* II, 176-177.
38. BDB, 54f; KB, 62-63.
39. Hare'ubeni, לשוננו III, 134.
40. Shalem, לשוננו IV, 66.
41. B. Maisler, *Enc. Miq.*, I, 430-431.
42. BDB, *op. cit.*; KB³ (1967), I, 61.
43. So Gradwohl, who neither mentions nor discusses it; and BDB, where it is included in I אִמָּת.
44. Fronzaroli, 'I Cavalli', 602 (English summary).
45. Mitchell, *Zechariah*, ICC, 178-180, 182.
46. *Ibid.*, 129.
47. Charles, *Revelation*, ICC, 162-163 (for Rev. 6:2ff.).
48. *Ibid.*, 119.
49. *Ibid.*
50. Jastrow, 1350.
51. Ibn Janah, שְׂרָשִׁים, 38.
52. Qimhi, שְׂרָשִׁים, 42.
53. מקראות, 405.
54. KB, 63: "piebald".
55. אוצר לשון המקרא I, 201.
56. Shalem, לשוננו IV, 66.
57. Which is different from that cited by KB and אוצר לשון המקרא (cf. nn. 17, 18 above).

58. Guillaume, *Hebrew and Arabic Lexicography*, 7.
 59. The lexeme does not feature in MH either.
 60. B.Z. Eshel, לשוננו V (1954), 5; M. Stavvi, לשוננו X (1959), 22; Gradwohl, 22; KB, 932.
 61. If we accept the second emendation proposed in BH³ for this verse and read instead of the MT
 ובשו עבדי פשתים ורגלים חורג
 the suggested (with IQIsa^a), then a colour contrast of אדם // זָכָן - which features in other passages, whether in a context of vine growing (Gen. 49:12) or not (Isa. 1:18) - comes into focus.
 62. שְׂרָקִים (Isa. 16:8) has the same basic form as שְׂרָקִים (Zech. 1:8), but within its context (// גִּפְנֵי) functions exactly like שֶׁקֶק - it denotes a vine branch, tendril, or cluster of fruit (BDB, 977). Therefore, together with the other lexemes mentioned above, it cannot be considered a full-fledged colour lexeme. Although retaining some colour allusion, or connotation, it belongs primarily to a different semantic field.
 63. BDB, 977; KB, 932-933.
 64. Gradwohl, 21.
 65. Ibn Janah, שרשים, 536-537.
 66. מקראות III, 400.
 67. Qimhi, מקראות, 811-812.
 68. Jastrow, 1345 (for קָחָא).
 69. Rashi states: ולא ידעתי מה צבע הוא.
 70. Pines VI, 671; KB, 932; BDB, 977; Leslau, *Ethiopic and South Arabic Contributions*, 52 (in Ge'ez, Tigre, and Amharic).
 71. Gradwohl, 21; Pines, *op. cit.*
 72. Gradwohl, *op. cit.* (and n. 142); KB, 932; BDB, 977.
 73. Gradwohl and the others, *op. cit.*; and Jastrow, סיקרא II, 986; Herszberg, הארג והעשית הארג, 235-236.
 74. Albeck, מכילתא למשנה, 166; Moresheth, לכסיקון הפועל, 144; Shalem, לשוננו IV, 67.
 75. Pines, *op. cit.*
 76. BDB, 977.
 77. KB, 933.
 78. Leslau, *op. cit.*
 79. Jastrow, סרק III, 1030.
 80. סרק: Ben Yehudah VIII, 4228; שרק: Ben Yehudah XVI, 7627-7628.
 81. Pines, *op. cit.*
 C.2.
 1. The Samaritan Pentateuch has צַחַר in both lists of descendants of Shimeon. The list of Shimeonite families in Num. 26 has זֶרַח instead of צַחַר (v. 13), and so does the list in 1 Ch. 4:24; צַחַר (Q), or יצַחַר (K) is enumerated among the sons of Judah in this last list (1 Ch. 4:7).
 2. So C.H. Parker, *The Tyrian Oracles*, 161; W. Eichrodt, *Ezekiel*, 379; G.A. Cooke, *Ezekiel*, ICC, 310 (with an emendation); BDB, 850, and KB, 801, both with a suggested emendation to the place name; Gradwohl, 25.
 3. See below, and in the next section (2.1.2).

4. For the location of חִלְבוֹן and צָחָר see Parker, Cooke (cited above, n. 2) and the literature referred to thereof.
5. Thus LXX, V.
6. Rashi for our passage; Jastrow, 608 (כְּבִינָא), 773 (מִילָא), with the relevant quotations from the Mishna, Tosefta, and Talmud. A most concise definition is to be found in Tal.Bab.Shabb. 54a - כַּצְמֵר נָקִי בֶן יוֹמוֹ מֵאֵי צֶמֶר לֵבָן שֶׁמִּכְבְּנִין אוֹתוֹ לְמִילָחָה
7. Gradwohl, 24.
8. Jastrow, 1275, Onkelos for Ex. 27:16 (according to Berliner's ed.).
9. BDB, 850.
10. G.F. Moore, *Judges*, ICC, 148.
11. C.F. Burney, *The Book of Judges*, 124.
12. KB, 801.
13. Gradwohl, 27.
14. GB, 681; Pines, *op. cit.*, VI, 670.
15. גִּיחוֹר: Jastrow, 237: "red-spotted in the face". Cf. also Ben Yehudah, II, 748, and nn. 2 and 3 thereof.
16. *Aruch* VII, 14.
17. מְקַרְאוֹת II, 70; III, 284.
18. Ibn Janah, שְׂרָשִׁים, 427.
19. Ben Yehuda, XI, 5458.
20. Y. Kaufmann, סֵפֶר שׁוֹפְטִים, 136: לִבְנוֹת אוֹר צִהָהָבוֹת
21. GB, 681.
22. Pines, *op. cit.*
23. Gordon, *Textbook*, Glossary, no. 2160.
24. BH³: prp. נִעְרָלָה.
25. Gradwohl, 2.
26. Fronzaroli, 'Struttura dei Colori', 377.
27. *Ibid.*, 381-382.
28. *Ibid.*
29. Cf. Bab. Tal. Men. 86a, אֵין זָךְ אֵלָא נָקִי, and its similarity in meaning to צָכָה both in biblical Hebrew and in MH.
30. Again, probably through the similarity in form and meaning with צָכָה.
31. BDB, 269.
32. Fronzaroli, *op. cit.*, 387.
33. KB, 255.
34. BDB, 850; KB, 800; GB, 680; Guillaume, *Hebrew and Arabic Lexicography*, 14.
35. Note the parallel root צָחִי (BDB, KB *ad. loc.*) which in Hebrew apparently means 'parched' (Isa. 6:13 - צָחָה צִמָּא - although Arabic and Ethiopic parallels point to a basic notion of 'be cloudless'. The similarity of reference between this second root and between the lexemes צִחְצִחוֹת, צִחְצִיחָה, צָחִיחָה, צָחִיחָה - and the compounds חָם צָח (Isa. 18:4) and צָח רִיחַ (Jer. 4:11) is quite clear. It is possible that through the basic similarity of form and sense between the two roots they have become semantically contaminated, to the extent that the only Hebrew lexeme which is seen to evolve directly from צָחִי is צָחָה. Leslau, (*Contributions*, p. 44) remarks that indeed the Ge'ez and Tigre root ṣḥy seems closer to the Hebrew צָחִי than to צָחָה. For חָם צָח see: S. Dubdeban, "פִּתְּחָם צָח", סֵפֶר בְּרִסְלָבִי, 334-338.
36. Pines, VI, 670.

C.3.

1. Gradwohl, 53.
2. Pines, VI, 671.
3. *Ibid.*
4. Jastrow, 25.
5. *Ibid.*, 1552. *Aruch*, VIII, 57.
6. BH³; BDB, 299 - both regard this last instance as an interpolation and recommend its elision.
7. Fronzaroli, *op. cit.*, 383.
8. Gradwohl, 50, where he lists cognates; see nn. 2 to 13 there for authorities cited.
9. Pines, *op. cit.*, 667.
10. S.R. Driver, *Genesis*, 278; J. Skinner, *Genesis*, ICC, 391-392: "black or dark brown". Von Rad, *Genesis*, OTL, 293, 296; Gunkel, *Genesis*³, 339.
11. The 'black' interpretation, together with an allusion to Arabic, is already to be found in Ibn Janah, שרשים, 146; Qimhi (שרשים, 196) agrees - he too derives the term from חמם.
12. Cf. II, B.3.
13. Gradwohl, 50-52; Pines, *op. cit.*; B. Kedar, *The Vulgate*, 166-167.
14. Jastrow, 1545, (but cf. his שחם, שחם, שחם 1548-1549); Pines, *op. cit.*
15. Jastrow, 702, 'flaming, red'; לחשץ I = 'flame, glow', 704. Such, interestingly enough, is the translation given by B. Jacob in his commentary to *Genesis* (English Edition), 204.
16. מקראות *ad. loc.*
17. As cited by M. Kasher, חומש תורה שלמה VI, 1209-1210.
18. Cf. II, B.0.3.
19. Pines, *op. cit.*, 667.

C.4.

1. Pines, 668; Gradwohl, 30.
2. Cf. discussion under ארמדם, II, C.1.1.2ff.
3. Gradwohl, 30-31; C. Levis, *Jewish Enc.*, II, 176-177; J. Gray, "A Cantata of the Autumn Festival", *JSS* XXII, 14: "pale gold" (p. 23).
4. See the discussion of צרוק, B.4 above, and notes.
5. For the appearance of the dove cf. Z. Beilin, בית מקרא 53 (1973), 227.
6. Jastrow, 598.
7. *Ibid.*, 595-598; 750 מוריקא = 'crocus, saffron'; 839 (מוריקא - the same).
8. Cf. C.1.1.6.

C.5.

1. Cf. II, B.5.
2. Jastrow, 822.
3. Rashi, מקראות I, 266.
4. Qimhi, שרשים, 614.
5. Gradwohl, 23.
6. Cf. section C.4.1.

D.

D.1.

1. For the affirmative \bar{on} see G.-K., 86f., and Gradwohl, 14.
2. BH³ proposes \bar{on} or \bar{on} for the \bar{on} , which seems a little obscure. But see Qimhi, מקראות, who compares the \bar{on} to \bar{on} (Nah. 3:12), where the meaning of \bar{on} (as here) is equivalent to \bar{on} . Moreover, Procksch (in BH³) corrects the text of Nah. 3:12 to \bar{on} .
3. There is no logical connection between this part of the verse and between what precedes it. Goliath underrates David because of his youth, not because he is \bar{on} and good-looking. The phrase looks like an addition caused by 16:11-12, where David is referred to as a young man among the other \bar{on} . Hence, Kittel (BH) rather hesitantly suggests that the phrase is an addition. The ancient Versions, however, retain the phrase in both.
4. See the collection of references quoted in M. Kasher, *op. cit.*, IV, 1019-1020.
5. Skinner, *Genesis*, 359f.
6. Gradwohl, 14.
7. Gunkel, *Genesis*, 296.
8. Which is the usual V translation for 'red hair'; cf. Kedar, *The Vulgate*, 168f.
9. Pines, *op. cit.*, VI, 666.
10. or: \bar{on} ; cf. Kasher, *op. cit.*, 1020.
11. Ginsburger, 44.
12. Heller, *Peshitta*, 31.
13. Diez Macho, I, 155.
14. *Ibid.*, in a textual note for this verse.
15. Ginsburger, 194: \bar{on} .
16. *Ibid.*, 193, 197.
17. See Shalem, "לשמות הצבעים", IV, 63. According to him, \bar{on} - despite its context - is a colour term meaning 'very red' = \bar{on} ; if so, it is hardly suitable for rendering \bar{on} .
18. Diez Macho, III (Leviticus), 79ff.
19. Gunkel, *Genesis*, 295f.
20. *Ibid.*
21. Skinner, *op. cit.*, 359.
22. In the *Jewish Encyclopedia*, II, 176: 'reddish-brown' complexion.
23. BDB, 10: 'red, ruddy'.
24. So actually Gradwohl, 14; and cf. \bar{on} , C.1.1.
25. Jastrow, 99; Levy, 173; "*rotlich oder hochrot*."
26. Cf. II, C.1.1.2.
27. Pines, *op. cit.*
28. See II, B.2.3. and nn. 2-4 thereof. In addition, cf. Jacob, *Genesis*, 331f.: "redder than wine"; von Rad, *Genesis*, 415.
29. Cf. II, B.2.3, and nn. 5-11 thereof.
30. Gunkel, *op. cit.*
31. *Jewish Enc.*, 175b.
32. C.H. Toy, *Proverbs*, ICC, 441.
33. Heller, 64 (for Gen. 49:12).
34. Jastrow, 411; Levy, I, 564, who cites Payne Smith, 1154, for the Syriac.

35. Contra Pines, *op. cit.*, 667.
36. For the MT חמץ, and other suggestions, cf. Dahood, *Psalms II*, AB, 146; BH³ for this verse; Gray, *JSS* XXII, 15.
37. A discussion of Isa. 63:1ff. and the imagery thereof was undertaken in section II, B.1.4.
38. Gradwohl, 22-23; Pines, *op. cit.*, and authorities quoted by both.
39. Jastrow, חמץ, 478f. חמוצתא, 457f.
40. Cf. M.D. Cassuto, "אהלים ס"ח", ספרות מקראית וספרות כנענית, 188-189.
41. Gradwohl, 27.
42. For the form חמררה see N.H. Tur-Sinai, *Job*, 268; S.R. Driver, G.B. Gray, *Job II*, ICC, 107-108.
43. Gradwohl, 16-18, 27, and material cited in the notes thereof.
44. BDB, 330-331; KB, 312-313.
45. Cf. Moresheth, לכסיקון הפועל, 63, text and n. 5.
46. Ibn Janah, שרשים, 160-161; Qimhi, שרשים, 217-218.
47. So Dt. 32:14; Isa. 27:2, and mainly Ps. 75:9, where BH³ proposes חמר לזין for the חמר לזין of the MT. In the last instance, however, the words that follow - מלא מר - point to the 'fermenting' element rather than the 'colour' element; and see Dict. and Gradwohl, *op. cit.*, for the classification of חמר.
48. Contra Tur-Sinai, *op. cit.*, who cites the Lam. instances and explains them (together with our passage) by analogy to the Arabic cognate as from 'boil, seeth'.
49. M. Pope, *Job*, AB, 115. Similarly NEB for this verse.
50. Cf. Driver-Gray, *op. cit.*, 108.

D.2

1. BDB, 301; KB, 283f.; Gradwohl, 48f.; Jastrow, 438f.
2. Jastrow, *op. cit.*, cf. modern Hebrew חור = "pale, light coloured".
3. Aboth 3:11, and more - cf. Ben Yehudah V, 2612; Kedar, *The Vulgate*, 169.
4. E.Z. Melamed, "השפעת הארמית", ספר זינדל, 151-152.
5. Gradwohl, 49.
6. For a fuller treatment of חור and other lexemes listed in the following paragraph, see below, E.2.3.2 and F.1.1.2.
7. BDB, 301; KB, 283f.
8. BDB, 301.
9. KB, 333.
10. Qimhi, שרשים, 197, links the derived lexeme to the colour term through the practice of wearing white clothes for festive occasions (cf. Qoh. 9:8), obviously out of the question for the underprivileged, at least as a daily practice.
11. For the phenomenon of temporary loss of original lexical items, and their subsequent re-introduction into the lexis through the secondary influence of a cognate language (especially in connection with the parallel pairs of poetic diction), cf. A. Hurvitz, בין לשון ללשון, 27-28.
12. *Ibid.*

D.3.

1. Cf. section II, B.3 especially 3.0, 3.4 and 3.6.
2. *Ibid.*
3. Levias, *Jewish Encyclopedia* II, 175b, who adds the usage of $\sqrt{\text{חשך}}$ in Ps. 69:24 - $\text{חֲשֹׁכָה עֵינֵיהֶם מֵרְאוֹת}$ - and in Lam. 5:17 - $\text{חֲשֹׁכָה עֵינֵינוּ}$ - to our instance. I think that the last two are idiomatic; as such, they differ from Lam. 4:8. And see below under כהה.
4. The form פָּתָה , which appears as a syntagm with $\text{הַנֶּגֶעַ$ (vv. 6, 56) is classified by BDB, for example, as a feminine form derived from פָּתָה . This seems unsatisfactory, for נָגַע is grammatically masc., and it would be a bit far-fetched to assume that the more frequent employment of פָּתָה with בְּהֵרַת (sg. or pl.) has influenced the pointing of פָּתָה (הַנֶּגֶעַ). Rather than classify נָגַע = "mark" as of indeterminate gender (BDB, 619), we might assume that the lexeme was pointed as if it were a verb in the Pi. theme - especially since it denotes a process rather than a state. Furthermore within the framework of the stipulation prescribed in our chapter, the lesion/mark should not spread (לֹא פָשָׁה , 6, 56; עָמַד בְּעֵינָיו , 5), but must change its appearance (כָּהָה) in order to be re-classified as ritually pure. Alternately, perhaps there is a phonetic/alliterative influence carried over from פָּתָה (לֹא פָשָׁה).
5. In contradistinction to the preceding instances, this last one refers to an organic change in materials such as cloth and leather whose chief symptom is a change in colour, and not to psoriasis or other (human) skin disorders.
6. For the second member of the parallelism in Job 17:7, which is textually corrupt, see: Tur-Sinai, *Job*, 278-279; Pope, *Job*, 127.
7. BH³: קָרוֹץ .
8. BDB, 462 (with Syriac and Mandaic etymologies).
9. *Ibid.*, and therefore classified under I $\sqrt{\text{כָּהָה}}$. Admittedly, it is closer in meaning to the Arabic etymology suggested than all other occurrences.
10. *Ibid.*; KB, 424.
11. BDB, *op. cit.*, Ibn Janah, שְׂרָשִׁים , 212-213.
12. In BDB, *op. cit.*, the distinction is mentioned, but no separate entry is accorded, although this seems to be warranted by the lexical material.
13. Cf. section I, A.1.

E.

E.0

1. Gradwohl, 60-88.
2. L.B. Jensen, *JNES* XXII (1963), 108ff.
3. Abrahams *et al.*, 183-191; in Y. Yadin, $\text{הַמִּצְעָאִים... מִימֵי בָר}$ כּוֹכְבָא, 278ff. (English).

E.1

1. For the archaeological evidence: Gradwohl, 60-61; Jensen, *JNES* XXII, 104-118 (for the northern coastal strip and the Phoenicians).

2. Cf.: Herszberg, הארג והעשית הארג, 210ff.
3. Yadin, *op. cit.*, 178ff.
4. Ex. 31:2, 35:30, 36:1ff.
5. For פונג (< פונג) cf. BDB, 806.
6. Herszberg, *op. cit.*, 210, n. 1.
7. Herszberg, *ibid.*, derives דודו from 'דוד', = 'pot, jar' for boiling or immersing the dye/dyed cloth; see, however, BDB, 187, where the name is taken to mean 'his beloved', together with דודוהו, דוד.
8. Although the activity of תולע is centred around Shamir (within the הר אפרים-מנשה territory), north-west to Shechem.
9. I think that Herszberg's view, 213-218, that the Northern Israelite tribes competed with their Canaanite neighbours and that they became almost as expert as the latter in dyeing, to the point that they were even identified with them in some passages - is a bit far-fetched. Herszberg attempts to overcome the contradiction between 1 Ki. 7: 13-14 and 2 Ch. 2:12-13 concerning the craftsman חירם and his skills by accepting the 1 Ki. evidence for the man's origin, that of 2 Ch. for his technical prowess (*ibid.*, 212, n. 1.) This is probably a tendentious interpretation, dictated by his conviction that the Israelites could produce purple, and that linguistic gaps or lacks do not necessarily indicate lack of perception/skill (220). Our view is that the evidence of 1 Ki., for lack of any other, should be accepted both for the man's origin and for his skills; hence, he is excluded from the present discussion.
10. For example: A. Hurvitz, *MThR* 60 (1967), 117-121.
11. Herszberg, *op. cit.*, 221.
12. *Contra* Gradwohl, 61f.
13. Cf. BDB, I צבע and III צבע, 840 for the etymology, albeit not for the meaning; *ibid.*, I צבע (Aram.), 1109; but mainly Tur-Sinai's treatment in לשוננו XIII, 21f. Cf. also Blau's critique of Gradwohl's work, לשוננו XXXII (1968), 405.
14. The emendation of Job 38:14 - והצטבע to והצטב or והצטבע (so BH³ and Gradwohl, 62), if accepted, should be considered an Aramaism which is related to the צבע of Dan. (ch. 4, 5) but not to צבעים. Cf., however, Tur-Sinai's commentary in *Job*, 526.
15. והצטב of Josh. 9:4 is an obvious misspelling for והצטב - cf. BH³; BDB, 851. Otherwise there is no occurrence of צור (Jastrow, 1270, 1272) in one or more of the specialized senses - 'embroider', 'engrave', 'paint', 'sculpt' - which is a development from צור, צורה that is peculiar to MH and facilitates Midrashim and puns. See Jastrow for צור, צורה and צור (1275-1276), with examples.
16. Gradwohl, 63-65, following KB, 661; and Löw (cited *ibid.*).
17. See M. Nidd. 9:6 -

שבעה סממנים מעבירין על הכתם: רק תפל...ומי רגלים ונחיר ובוריה
 קמוניא ואשלג...העביר עליו שבעה סממנים ולא עבר ה' זה צבע...
 עבר או שדה הרי זה כתם.

The contrast is between כתם and צבע, while סממנים are the agents for clarifying the situation. Further, in M. Shabb. 12:4 appears in a (recurrent) list of writing materials, with דין, סיקרא, קומוס, קנקנתוס. All in all, the term is quite versatile and far from specific; cf. Jastrow, סם (998),

17. טמ(מ) (1002); and III, D.5.
18. Blau, *op. cit.*, 406.
19. Herszberg, *op. cit.*, 217f., n. 3.
20. BDB, 460, 461.
21. Curiously enough, in MH the verb is always constructed after the Pi. conjugation, while the noun - 'כֹּבֵס' - is in the Qal part. formation.
22. Cf. Levias, *Jewish Enc.* II, 174.
23. The distribution of מַרְאֵה in reference to 'bodily appearance', 'shape', 'image', 'outline' is of course much wider.
24. See III, E. and provisionally Levias, *op. cit.*

E.2.

1. Although the word context of the latter - לֹא תִירָא לְבִיתָהּ - פָּנִים שְׁנִים = 'two' (layers of clothing). Otherwise, the mixed metaphor could be seen as a free association based on the contrast of Isa. 1:18.
2. Jensen, 'Royal Purple', *JNES* XXII (1963), 111; and Y. Feliks, שִׁיר הַשִּׁירִים, 23. Feliks lists three kinds of the Shield Louse which can be found in Syro-Palestine: *Kermes biblicus*; *Kermes nahalali*; *Kermes greeni*. (*id.*, 15); further details are supplied in his article "הַמְצָרִי בַּסְּפָרוֹת הָעִתִּיקָה" *סיני* XIX. Cf. also Gradwohl, 73f.; A. Lucas, *Ancient Egyptian Materials*, 150-154; Y. Yisraeli, *Enc. Miq.*, IV, 1009-1010.
3. Gradwohl, 77, following Bertholet and Baentsch.
4. But cf. Ben Sira, 45:17, וְשָׁנִי חוֹלֶעֶת מֵעֵשָׂה אֹרֶג, in a reference to Ex. 28, where the regular idiom is חוֹלֶעֶת שְׁנִי (Segal's ed., 311).
5. III, D.2.1.
6. Temple Scroll, 10:10, 14; [Yadin's ed. vol. I.]
7. For the etymology of כְּרָמִיל see C. Rabin, "מִלִּים הוֹדִיאוּ", *לשוננו* XIV (1963), 241f. Rabin postulates Sanskrit provenance together with a borrowing into Hebrew through Persian. Similarly, also Pines, *op. cit.*, 669.
8. Gradwohl, 73: BDB, שְׁנִי, 1040, for Arabic and Ethiopic cognates; KB, 997f.
9. Gradwohl, 74.
10. Blau, *לשוננו* XXXII, 406.
11. B. Landsberger, 'Über Farben', 169.
12. *Ibid.*
13. K.R. Veenhof, *Aspects of Old Assyrian Trade*, in a list of designations for coloured textiles, 186ff.
14. BDB, 1068f.; KB, 1021.
15. Feliks, *op. cit.*, 22, 109.
16. *Ibid.*
17. Herszberg, *op. cit.*, 253.
18. Feliks, 77.
19. כַּפְלָח הַרְמוֹן רִקְחָן re-appears in Song. 6:7 as an independent unit, which strengthens its non-colour interpretation *vis-a-vis* חוֹט שְׁנִי, 4:3.
20. Ex. 25:4; 26:1, 31, 36; 27:16; 28:5, 6, 8, 15, 33; 35:6, 23, 25, 35; 36:8, 35, 37; 38:18, 23; 39:1, 2, 3, 24, 29. Also: 2 Ch. 3:14.
21. But in 2 Ch. 3:14 - וְכִרְמִיל וְבוֹץ, and similarly in 2:13.

22. See, for instance, Num. Rabb. 12, especially: **אלא מלמד שהראה הקב"ה למשה למעלן אש אדומה אש ירוקה אש שחורה אש לבנה.**
23. Cf. Ezek. 27:7a, **שש בִּרְקָמָה**, and below, for Tur-Sinai's etymological equation **רְקָמָה = ארגמן**. The second part of the same verse, however, has **תכלת וארגמן**.
24. See discussion of **כרפס** and **חור**, F.2.3.
25. BDB, 1067; KB, 1028; Gradwohl, 66.
26. Cf. A. Goetze, 'Inventory', JCS X, esp. 35ff. For this article, and the subject itself, cf. Landsberger, 'Über Farben', 163ff.
27. *Ibid.*, 164.
28. Jensen, 'Royal Purple', 113f.; Gradwohl, *op. cit.*
29. Apart from 2 Ch. 2:13: **...בארגמן בתכלת**.
30. Jensen, *op. cit.*, 114.
31. Cf. **זרב כסף וזהב** in earlier sources vs. the reverse order **וכסף וזהב**, more prevalent in post-exilic OT sources and contemporary extra-biblical documents; see Hurvitz, **"בין לשון ללשון"**, 248-251; **ספר ליוור**, 146f.
32. Jensen, *op. cit.*, 111.
33. *Ibid.* Also Herszberg, *op. cit.*, 266; and cf. Song, 7:6, **כרמיל/ארגמן**.
34. Jensen, *op. cit.*, 115.
35. *Idem*, 105f.; Feliks, *op. cit.*, 22.
36. Unlike **תולע**, **שני**.
37. Jensen's article (JNES XXII, 104-118) is perhaps the most definitive; see also Gradwohl, 65ff.; M. Ellenbogen, *Foreign Words*, 38f.; Loewenstamm, *Enc. Miq.* I, 529f.; Yisraeli, *Enc. Miq.* IV, 1008-1010.
38. Ellenbogen, *op. cit.*; Rabin, "מלים חתיות בעברית", 156.
39. Loewenstamm, *op. cit.*; Rabin, *op. cit.*, 156-157; *idem*, "מלים חתיות", **לשוננו** XIV, 242.
40. For the same question - the etymology of **ארגון/ארגמן** - cf. also S.A. Kaufman, *Akkadian Influence on Aramaic*, 35f., and literature cited in n. 27 thereof.
41. Gordon, *Textbook*, Glossary, no. 340 (p. 365).
42. Goetze, *op. cit.*, 32-38; Landsberger, *op. cit.*, 155ff., and summarized in the synoptic table on p. 164; F. Thureau-Dangin, *Syria* XV, 137ff. (Ugarit); Veenhof, *Trade*, 166ff.; Gradwohl, 65ff.; M. Elat, **קשרי כלכלה בין ארצות המקרא**, 87-97.
43. Rabin, *op. cit.*, 157; Tur-Sinai, **לשוננו** XIII, 19-23.
44. For additional notes on **רקמה**, **רקם**, see 2.4.2.
45. Ibn Janah, **שרשים**, 54: **ארגמן וארמית ארגוןא**; **והוא צבע אדום**.
46. 10:12 (Yadin's Ed. II, 32).
47. Jensen, *op. cit.*, 111.
48. Cf. II, B.2.6. and III, D.2.3.
49. A. Hurvitz, *Rev. Bib.* 81 (1974), 33ff.; *HTHR* 60 (1967), 117-121. More recently see also Grntz, **לשוננו** XXXIX (1975), 179-180.
50. Grntz, *op. cit.*; Ellenbogen, *Foreign Words*, 164.
51. Hurvitz, *op. cit.*
52. Cf. KB³, I, 111b; T.O. Lambdin, *JAOS* 73 (1953), 147f.
53. BDB, 101; KB, 114; Gradwohl, 49f.
54. Landsberger, 'Über Farben', 141ff.
55. Veenhof, *Trade*, 189.
56. Grntz, *op. cit.*, 13-15.
57. Thus the LXX has the rendering *byssos*. For the V, the Aram., and some etymological notes cf. Gradwohl, 49.

58. See under Indirect Colour Allusions, I, F.1.1.2.
59. Noth (*Personennamen*, 221) does not relate the proper name to our $\sqrt{\text{חור}}$; cf. also KB³, I, 287a for other interpretations.
60. Ellenbogen, *Foreign Words*, 94; Rabin, *op. cit.*, 240; Kutscher, *מלים ותולדותיהן* 98-99, 117. M. Fränkel, on the other hand, attempts to derive from the Hebrew $\sqrt{\text{כבס}}$, $\sqrt{\text{כבס}}$, with a dissimilatory ר : 'Bemerkungen', *HUCA* XXXI, 84f.; his explanation is not convincing, since the practice of borrowing the term referring to a new product together with the introduction of the foreign product cannot be ignored.
61. Kutscher, *op. cit.*, 98.
62. Rabin, *op. cit.*
63. For the dropping of the lexeme in MH, the homonymic clash with כרפס - 'green herbs', and the penetration of $\sqrt{\text{akt}}$ derived terms referring to this material into Eastern and European languages cf. Kutscher, *op. cit.*, 98-100, 117.
64. According to the Arabic cognate - "*barama*, twist a rope of two strands; *barim*^{un} - rope (or fabric) of two shades or colours" (BDB, 140).
65. Veenhof, *op. cit.*, 186.
66. Landsberger, "Farben", 160f., and especially the critique of the entry in CAD (B, 257) in note 106 thereof.
67. Cf. the instance from Nuzi cited in Landsberger, *op. cit.*, 157, col. II, where *birmu* is mentioned again in conjunction with 'purple'.
68. BDB, 955; KB, 909f.; G.W. Thatcher, *DB*, 458.
69. Thatcher, *op. cit.*
70. If the basic reference of $\sqrt{\text{רקם}}$ is to the notion '(be of) many colours', there is no need to define the usage of רקמה in Ezek. 17:3, 1 Ch. 29:2 as figurative (thus BDB *ad loc.*) just because in the OT רקמה , רקם usually modify 'cloth of various kinds and hues'.
71. רקם : a. Midianite King (Num. 31:8, Josh. 13:21); b. son of Hebron (1 Ch. 2:43f.); c. of Gilead (1 Ch. 7:16).
72. In Benjamin (Josh. 18:27); cf. KB, *op. cit.*, for location.
73. Once also a Pu. (Ps. 139:15) in the sense of 'I was woven'?
74. Tur-Sinai, *לשוננו* XIII, 19-23, ties up רקמה and ארגון (cf. section E.2.1 above). The suggestion, though attractive, is far from certain. Further, it has no bearing upon the understanding of biblical passages containing רקם and רקמה - apart from, possibly, Ezek. 26:16, where בגדי רקמה are the garments of נשיאי הים - royal purple garments?; and Ps. 45:15 (a 'royal' circumstantial context, and see v. 13, בית צר).

E.3.

1. Both קרן הפוך (Job 42:14) and אבני פוך (Isa. 54:11, 1 Ch. 29:2) are assigned to II, F. ("Colour Allusions") below. Cf. also Rabin, *Enc. Mig.* VI, 442..
2. Gradwohl, 80f. and 88.
3. Rabin, *op. cit.*
4. Lucas, *Ancient Egyptian Materials*, 80ff.
5. BDB, 806, for פוך , but with no satisfactory etymology or cognates.
6. Rabin, *op. cit.*, following Thompson.
7. KB, 754, פוך .
8. Gradwohl, 82; BDB, 471; KB, 430; Rabin, *op. cit.*

9. Ibn Janah, שרשים, 397; Qimhi, שרשים, 577.
10. BDB, 974; Ibn Janah, 534; Qimhi, 808.
11. Gradwohl, 84.
12. Cf. III, D.3.1.
13. Cf. Gradwohl, *op. cit.*; Jastrow, 986.
14. Lucas, *op. cit.*, 84.

E.4.

1. Herszberg, *op. cit.*, 251ff.; Yisraeli, Enc. Miq. IV, 1010J.
2. Gradwohl, 78ff.; Lucas, 150-154.
3. Cf. II, E.1.
4. BDB, 499; KB, 453; Gradwohl, 79; Guillaume, *Lexicography*, 19; M. Zohary, Enc. Miq. IV, 230-231.
5. *Ibid.*
6. *Ibid.*, 312.313.
7. KB, 455; Ellenbogen, *Foreign Words*, 93; Zohary, *ibid.*; Rabin, "מליות", 239. *Contra* the definition as a loan, see Fraenkel, 'Bemerkungen', 96f. The latter's view, however, is not convincing.
8. Yadin, ממצאים, 181; *contra* Forbes, IV, 122 (quoted by Gradwohl, 80).
9. Gradwohl, 85; BDB, 1059; KB, 1014.
10. Lucas, *op. cit.*, 343.
11. Herszberg, *op. cit.*, 261f.

E.5.

1. Lucas, *op. cit.*, 338-359. For Mesopotamian practices see H. Frankfort, *Art and Architecture*, 95.
2. Lucas, *op. cit.*, 362ff.
3. Gradwohl, 83; BDB, 188.
4. Gradwohl, 85.
5. KB, 930.
6. Gradwohl, 85-86.

E.6.

1. Cf. M. Neg. 1:1: סידר ההיכל.
2. D. Parnas, Enc. Miq. II, 484-485.
3. See III, D.6.
4. Cf. previous note; and Jastrow, 961, 978.
5. *Contra* Gradwohl, 86-87.

F.

F.0

1. Cf. II, A.5.

F.1

2. Gradwohl, 15.
3. Y. Zakovitch, כפל מודשי שם (Unpublished dissertation, Jerusalem, 1971), 42, 72-73.
4. BDB, 10.
5. Ugaritic ^c*bd. 'dm.*

6. See Eusebius, *Onomastikon*, no. 521. (all references to the *Onomastikon* given forthwith will follow E.Z. Melamed's Hebrew edition ספר האונומסטיקון לאבטבילוס, Jerusalem, 1966.
7. II, C.1.3.1.
8. II, D.1.3.
9. BDB, 314.
10. For המר - Gradwohl, 17f.; II, D.1.5.
11. Thus Ullendorff; cf. F.2. 1.2 below.
12. Zakovitch, *op. cit.*, 28f.
13. Gradwohl, 73ff.
14. 'Über Farben', 169; cf. section II, E.2.1.3.
15. Gen. 36:13, 17; 1 Ch. 1:37.
16. Gen. 36:33; 1 Ch. 1:44.
17. Num. 26:13; 1 Ch. 4:24.
18. 1 Ch. 6:6, 26.
19. 2 Ch. 14:8.
20. Num. 26:13, 20; Josh. 7:17; 1 Ch. 27:11, 13, and probably v. 8 (MT; היזרחי).
21. I. Ezr. 7:4; 1 Ch. 5:32 (twice), 6:36, II. Ezr. 8:4 (אליהוועני בן זרחיה).
22. I. 1 Ch. 7:3 (twice). II. Neh. 12:42.
23. Gen. 2:12; Ex. 25:7, 28:20.
24. BDB, 995; KB, 950; Landsberger, 'Farben', 151f.
25. II, E.1.1 and 4.1.
26. Gen. 23:8-17, 25:9, 49:29, 50:13.
27. Josh. 15:19, perhaps also 2 Ch. 13:19 (K עפריון, Q עפריו), 2 Sam. 13:23 (MT: אפרים).
28. I Gen. 25:4; 1 Ch. 1:33. II. 1 Ch. 4:17. III. 1 Ch. 5:24.
29. Cf. BDB, 780.
30. KB, 723f.
31. But not עופרת = 'lead' - MH אבר, Aram. אברא, Akk. abāru - which is probably a foreign culture word (BDB, 780).
32. KB, 472; Gradwohl, 45f.; Loewenstamm, *Enc. Miq.* IV, 421.
33. Zakovitch, 67.
34. Gen. 6:17; Num. 3:18; 1 Ch. 6:2, 5, 14; הלבני - Num. 3: 21, 26:58.
35. J. Liver, אנצ מקראית IV, 430.
36. I Gen. 23:8, 25:9. II. Gen. 46:10; Ex. 6:15. III. 1 Ch. 4:7 (Q).
37. II, C.2.1.
38. BDB, 301.
39. 1 Ch. 5:14.
40. 1 Ch. 11:32.
41. Gen. 38:1, 2.
42. II, D.2.1.
43. Jud. 7:25, 8:3; Isa. 10:26; Ps. 83:12.
44. BDB, 788; KB, 733.
45. BDB, 871, for a list and literature.
46. For קדר, פרור and פארור, see section F.2.3.2.
47. I. Num. 31:8; Josh. 13:21. II. 1 Ch. 2:43, 44. III. 1 Ch. 7:16.
48. Josh. 18:27.
49. Cf. II, E.2.4.2-3.
50. Eusebius, *Onomastikon*, has two entries: under A for Josh. 15:7, under E for 18:17. St. Jerome adds a "Midrash" based on the equation אדם = אדם, that is, one that is more suitable to the Arabic name (with a reference to the Good Samaritan story, Luke 10:30). Cf. *Onomastikon*, no. 70 and

- 431, pp. 10 and 42 respectively in Melamed's edition.
51. *Onomastikon*, no. 861, 869.
 52. Isa. 5:2; Jer. 2:21.
 53. Gradwohl, 21, n. 146; Eshel, לשוננו לעם V. (1954), 5; and שירק*, II, C.1.4.
 54. Eshel, *op. cit.*
 55. Gen. 36:36 = 1 Ch. 1:47; *Onomastikon*, no. 652.
 56. *Onomastikon*, no. 446; BDB, 314. Identification: *Hirbet Keila*, east of Beit Gubrin.
 57. II, D.1.3 (חכללות, חכלילי) and F.1.1.1 (חכלליה).
 58. See n.pr.m. עפרון, 1.1.1 above.
 59. I Josh. 18:23 = עפרון, I Sam. 13:17, II. Jud. 6:11, 24; 8:27, 32; 9:5. Cf. Y. Aharoni, גיאוגרפיה הסטורית, 226f.
 60. Josh. 10:29ff., 21:10, and more; *Onomastikon*, no. 630; Gradwohl, 47.
 61. Num. 33:20, 21; *Onomastikon*, no. 627, 628; Aharoni, *op. cit.*, 37 and 135, identifies with *Sheih a-Zuweid*.
 62. Jud. 21:19. Cf. BDB, 526; Gradwohl, 46f.
 63. *Onomastikon*, 646; Gradwohl, 46.
 64. BDB, 1009.
 65. Aharoni, *op. cit.*, 222f.
 66. A. Cohen, "שמות אחרים שיסודם בצבע", בית מקרא (1973), 420.
 67. Cf. Gradwohl, 46f., for the above mentioned place names.
 68. Gradwohl, 24.
 69. *Onomastikon*, no. 712: Miletos in Asia Minor; cf. note pertaining to the same entry, *ibid.*
 70. Dt. 11:29, 27:4, 13; Josh. 8:30, 33.
 71. Gen. 10:28 (עובל) = 1 Ch. 1:22; Gen. 36:23 = 1 Ch. 1:40.
 72. P. Fronzaroli, 'West Semitic Toponymy in Northern Syria in the Third Millenium B.C.', *JSS* XXII (1977), 145-146.
 73. Aharoni, *op. cit.*, 14, 26, and *passim*.
 74. BDB, 301.
 75. 2 Sam. 15:23; 1 Ki. 2:37, 15:13 (= 1 Ch. 15:16); 2 Ki. 23:4, 6, 12; 2 Ch. 29:16, 30:14; Jer. 31:40.
 76. 1.1.3.
 77. BDB, 871.
 78. Aharoni, 92; for a summary of location and occurrences, cf. *ibid.*, 37, 57, 104 and *passim*. (see Index, 367).
 79. II, B.4.2. Support for this hypothesis may be derived from the fact that another 'colour' sequence - לָבָן - is the ultimate origin of the god-name Labban. Therefore, even if the עַם is the theophoric element, it has little bearing on our interpretation.
 80. Num. 31:8; Josh. 13:21, 18:27; 1 Ch. 2:43-44, 7:16.
 81. Aharoni, 210; *Onomastikon*, 771.
 82. Num. 32:3 (נִמְרָה), 36 (בֵּית נִמְרָה); Josh. 13:27 (בֵּית נ').
 83. Isa. 15:6; Jer. 48:34.
 84. II, G.2.3.
 85. BDB, 649, and also Aharoni, 90; see the latter for the history of the names and the identification of the various places, 77, 100, 105, 178.
 86. BDB, *ibid.*; KB, different for נִמְרָה and נִמְרִים, 618f.

F.2

1. See also אדמה = 'red clay', M. Shabb. 8:5.
2. For a summary of this subject see Zakovitch, מדרשי שם, 27, 69f., and notes to the latter, 220f. Also M. Ben Yashar,

- "ידם אדם ואדמה", ספר דים, 112-119.
3. Gradwohl, 4f.
 4. KB, 13.
 5. F.1.1.1 (עפרון).
 6. Bauer-Leander, *Grammatik*, 577. Ben Yehudah, I, 66.
 7. Ullendorff, *Ethiopia*, 126; cf. II, B.1.6 (to Song. 5:10, ידולי צח ואדום).
 8. Cf. Gradwohl, 21f. for the form, which contains a double reading.
 9. F.1.2.1, and notes thereto.
 10. Cf. חמרמר*, II, D.1.5.
 11. Gradwohl, 18; BDB, 330; KB, 312.
 12. Ibn Janah, שרשים, 160.
 13. Qimhi, שרשים, 217.
 14. *Jewish Enc.* II, 176 (for Ps. 75:9, Job 16:16).
 15. Ullendorff, 'Is Biblical Hebrew a Language', 186.
 16. Gradwohl, 19f.
 17. Isa. 24:23, 30:26; Song. 6:10. Gradwohl, 38f., tries to substitute חמה/לכנה for חומה/לכנה in the first instance (following LXX). His attempt is not convincing.
 18. For details cf. Gradwohl, 38-45, and dictionaries *ad. loc.* For לכנה and לכנה add cognates given in Leslau, *Ethiopic and South Arabic Contributions*, 28.
 19. Dt. 22:6 (twice); Isa. 10:14; Isa. 59:5 (twice); Job 39:14.
 20. II, E.2.3.1; Gradwohl, 49f.
 21. II, C.2.2.
 22. 1 Ki. 7:19, 22, 26; Hos. 14:7; Song. 2:2, 16; 4:5; 5:13; 6:2, 3; 7:3; Zech. 4:5 and in titles of psalms 45, 60, 61, and 80.
 23. Song. 2:1, אני חבצלת השרון
שושנת העמקים.
 24. BDB, 1004.
 25. II, C.2.1.
 26. Feliks, עולם הצומח המקראי, 234-244.
 27. BDB, 966.
 28. II, B.3.0.1-2.
 29. II, B.3.0.4, 3.4.
 30. The proposed BH⁵ emendation, ותשחה for ותחשה, limits the metaphor and the picture it conveys unnecessarily.
 31. Jer. 8:21, 14:2; Job 5:11.
 32. BH: נחמה for חמה; cf. two verses *infra*, v. 30 - עורי שחר
מעלי. If we accept the emendation, the field becomes considerably poorer.
 33. For קדר, חשר, cf. also II, B.3.0 above.
 34. BDB, 485. Alternately, the lexeme should be analysed as מדר + כ; so Prof. Barr in a letter. His article 'Questions Disputées d'A.T.' which deals with this lexeme (and צלמות, see below) was not available to me.
 35. Job 3:5; 10:21, 22; 12:22; 16:16; 24:17; 28:3; 34:22; 38:17.
 36. Ps. 23:4; 44:20; 107:10, 14.
 37. Isa. 9:1; Jer. 2:6; 13:16; Am. 5:8.
 38. Barker, 'The Value of Ugaritic', *Bibl. Sacra* 133 (1976), 122.
 39. S.M. Paul, "צלמות", *Enc. Mig.* VI, 735-736; but cf. n. 33 above.
 40. Gradwohl, 25-27.
 41. II, B.4.1-3.
 42. Dt. 28:22; 8:37 = 1 Ch. 6:28. Am. 4:9; Hag. 2:17.

43. Jer. 30:6 - וְהִפְכּוּ כָּל פְּנֵי לִירִקוֹן. Cf. MH פנים + פנים, הוריק + הכסוף, III, B.2.2; 4.2; G.4.2.
 44. Tal.Bab.Taan. 19a, 21a.
 45. No colour term; rather, it refers to 'blasting, burn' → 'dryness', 'emptiness' of the ears of grain, cf. שדף Qal, שדפה - Gradwohl, לירקון, 31f.; BDB, 995; KB, 951; Ibn Janah, שרשים, 506.
 46. E. Hare'uberli, "משחקים בשמות צמחי", לשוננו II (1929) 176-183.
 47. Gradwohl, 33, n. 50, counts 18 times and does not mention the additional biblical Aramaic occurrence, Dan. 4:1.
 48. *Ibid.*: רענן ... ist keine Farbbezeichnung (gegen Galling ... "grün"; Brockelmann ... GB"). Cf. there for the prevalent contrary view.
 49. S. Morag. "ומחצרה כאזרח רענן", תרביץ XLI (1972), 17-19.
- F.3
1. General bibliography: Lucas, *Ancient Egyptian Materials*, 231ff. (minerals), 386-405 (precious and semi-precious stones); Landsberger, 'Farben', 150-155 ('Farbige Steine'); Ellenbogen, *Foreign Words* (various entries); N. Shalem, "לשמות האבנים השוכות", לשוננו III, 291-229; *idem*, "לשמות הצבעים בעברית", לשוננו IV, 61-67; C. Rabin, "מלים חליות בעברית", ספר סגל, 1965, 151-179; *idem*, "מלים הודיות בעברית", לשוננו XIV, 232-245; S. Loewenstamm, "יאבן יקרה", *Enc. Miq.* I, 48-49 and bibliography cited there.
 2. Loewenstamm, *op. cit.*, 48; Shalem, "שמות האבנים", 291f.
 3. Loewenstamm, *op. cit.*
 4. Cited with no critical treatment, in Shalem, "לשמות הצבעים", 66f.
 5. Shalem, 'שמות האבנים'. 294. On the next page he tries to collate the material in each source together with that of the Aramaic Targum to Song., and to produce unified lists for each source and across sources.
 6. The list is reproduced *verbatim*, with the Greek column as in the original לשוננו text.
 7. 3 times - Ex. 28:17, 39:10; Ezek. 28:13.
 8. And so the Aramaic T (from סמק).
 9. Gradwohl, 15.
 10. Gen. 2:12; Ex. 25:7; 28:9, 20; 35:9, 27; 39:6, 13; (all P); Ezek. 28:13; Job 28:16; 1 Ch. 29:2.
 11. BDB, 995, with a question mark; Landsberger, 150f.
 12. BDB, 986; Grntz, "מונחים קדומים", לשוננו XXXIX (1975), 9.
 13. Ezek. 27:16; Isa. 54:12.
 14. Cf. כדכד as the rendering for כדכדא, נפך for יהלם - (cf. Qimhi, שרשים, 347, for the latter), and see Shalem's table (p. 258).
 15. BDB, 461.
 16. GB, KB, *ad. loc.*; Tur-Sinai, "כדכד", *Enc. Miq.* IV, 12-13.
 17. Rabin, "מלים חליות", 152.
 18. Ex. 28:19, 39:12 (P).
 19. Ellenbogen, *Foreign Words*, 22; KB, 31; and Grntz, "מונחים", 8.
 20. For a summary, see Loewenstamm, "יאולמה", *Enc. Miq.* I, 228.
 21. Ex. 28:17, 39:10 (P); Ezek. 28:13; Job 28:19.
 22. KB, 758; Ellenbogen, *op. cit.*, 133. For a summary see Rabin, "פסדה", *Enc. Miq.* VI, 453f.

23. Grintz, *op. cit.*, cf. Rabin, *op. cit.*, and in his article "מלים הודיות", 240 (in a ref. to Tur-Sinai's reservation).
24. Ex. 28:17, 39:10 (P); Ezek. 28:13.
25. For ברקע: Qimhi, שרשים, 98; Grintz, *op. cit.*, 9. In favour of the loan from Sanskrit: KB, 156; Rabin, *op. cit.* For a summary see Loewenstamm, "כרלקת", *Enc. Miq.* II, 265f.
26. Ex. 28:18; Ezek. 28:13, 27:16 (the latter has ארגמן ורקמה).
27. BDB, 656; KB, 624.
28. Rabin, "פוך", *Enc. Miq.* IV, 441.
29. Qimhi, שרשים, 444.
30. Jastrow, 1262: antimony. Thus also the Aramaic Targum to Heb. פוך (Jer. 4:30, 2 Ki. 9:30) as well as to פוך stones (Isa. 54:11).
31. Lucas, *op. cit.*
32. Ex. 24:10, 28:18, 39:11; Isa. 54:11; Ezek. 1:26, 10:1, 28:13; Job. 28:6, 16; Lam. 4:7; Song. 5:14.
33. Ex. 28:20, 39:13; Ezek. 1:16, 10:9, 28:13; Song. 5:14; Dan. 10:6.
34. Cf. below, III, D.1.1.3 (MH). Thus also St. Jerome, who understood חרשיש as 'sea' - cf. J. Barr, *Bull. of the J. Rylands Library* 49 (1966-67), 291-2.
35. Qimhi, שרשים, 830.
36. BDB, KB, ספיר; Grintz, *op. cit.*, 10.
37. Cf. Landsberger, 'Farben', 154, for a similar usage of 'lapis lazuli' for describing the colour of the sky.
38. 1 Ch. 29:2 (שליש); Song. 5:15; Esth. 1:6 (twice).
39. II, E.2.3.1 and dictionaries *ad loc.*
40. E. Ben Dor, "בהט", *Enc. Miq.* II, 36f.
41. Lucas, 233ff. (Egypt); Landsberger, *op. cit.*, 144.
42. II, B.5 (צלה) and C.5 (מצלה).
43. BDB, 359; KB, 332; Kutschel, מלים, 9.
44. Jastrow, 502; III, D.4.2.
45. II, C.4.1.1.
46. For the etymology of כחם: KB, 461, proposes a Nubian origin; compare, however, Ellenbogen's reservations in *Foreign Words*, 95. The latter suggests the Egyptian *ktm.t*, a loan in Egyptian itself.
47. BDB, 494, after Gesenius's *Thesaurus*.
48. Jastrow, 655.
49. I am grateful to Professor Barr for reminding me of the Akk. cognate and the Arabic inter-linguistic equivalent.

G.

G.1

1. Cf. II, A.6 for categorization and arrangement.
2. BDB, 666; KB, 632; Qimhi, שרשים, 450; Ibn Janah, שרשים, 316; Albeck, מבוא, 192' (for נקד); BDB, 785; KB, 730; Qimhi, 552f.; Ibn Janah, 382 (for עקד); Cf. also commentaries, and D. Ashbel, "עקודים נקודים וברודים", בית מקרא X, 48-52.

G.2

3. BDB, 378; KB, 352; Ibn Janah, שרשים, 180; Qimhi, שרשים, 254f.
4. Qimhi, *op. cit.*

5. For instance, BDB, III $\sqrt{\text{קשר}}$, 742; $\sqrt{\text{קשר}}$, 905; and commentaries *ad loc.*
6. BDB, 742, II $\sqrt{\text{קשר}}$.
7. Dillmann, *Lexicon*, 1018b - although no verb form is attested for Ge'ez.
8. D. Sedan, "להק", *לשוננו* II (1951), 20-24; Y. Abineri, "על עוזי מילוני", *לשוננו* XVII (1966), 78f.
9. BDB, 649 - from 'shine', 'gleam', 'be glossy'; KB, 618f. Levias, *Jewish Encyclopedia*, 177; Qimhi, *שרשים*, 438, *חיה שעירה שעורה כתמים כתמים*. For a summary of data and literature, see: E. Bilik, *Enc. Miq.* V, 870-872.
10. Jastrow, 914; Moresheth, *לכסיקון הפועל*, 119.
11. For 'multi-coloured textiles' see under E.2.4.
12. Cf. Gradwohl for a survey of the VSS. he uses, 54ff.; Thatcher, *DB*, I, 458; and literature cited above, nn. 1, 2 and 3.
13. Gradwohl, 56.
14. Cf. W.C. Libby, *Color and Structural Sense*; "Colour Contrast", 63ff., and especially 73ff.

H.

H.1

1. G.-K., 84h.; Bauer-Leander, *Grammatik*, 466-468.
2. D.J. Kamhi, 'The Term Tō'ar in Hebrew', *Bulletin of the School of Oriental and African Studies* XXXIV (1971), 271.
3. Thus Rashi; cf. J. Pereira Mendoza, *Rashi as Philologist*, 35. For a survey of other commentators and grammarians - Ibn Janah, Ibn Ezra, Saadia, Qimhi, E. Levitas - cf. Kamhi, *op. cit.*, 257-262; and 263-268 for attempts of modern scholars and lexicographers to grapple with the question, followed (269ff.) by a proposed solution to the problem, viz. a tripartite division into substantive nouns, epithet nouns, and proper adjectives, with the admission that there are regular shifts from class to class. It must be noted, however, that Kamhi defines *אֲדָם* and the like as "pure adjectives" (271).
4. For a survey and general remarks see Lyons, *Introduction to Theoretical Linguistics*, 323-325 (Adj. vs. verb); 327 (Parts of speech); and 435ff. ('lexical' and 'grammatical' meaning).
5. Thus Ben Yehuda - cf. R. Sivan, "חידושי המלים של אליעזר", *לשוננו* XII (1961), 66.
6. Lyons, *op. cit.*, 323-325.
7. Cf. Bauer Leander, *op. cit.*, for incomplete lists. Here we record mainly lexemes exhibiting identity of series in all forms - m. and f., sg. and pl., where all members of the series are attested (excluding basic phonetic influences, such as in *גִּבְהָהּ*, *גִּבְהָהּ*, etc., and original *gatal* forms).

H.2

8. Hos. 6:8; Jer. 17:9.
9. Isa. 40:4.
10. In Gen. 2:25, perhaps paranomasia to resemble *עָרוֹם* = 'sly', 'shrewd', Gen. 3:1; cf. *עָרְמִים*, 3:7.
11. F. pl. and suffixed forms constructed from the alternative *קָטַן*.

12. As in האספּיט, 1 Ch. 26:15, 17; Neh. 12:25.
13. בעלי אספּוּח, Qoh. 12:11.
14. Ex. 28:8, 39:5; Isa. 30:22.
15. Ezek. 23:41, from כְּכֹד?; Jud. 18:21, 'riches'.
16. = 'swarm', Ex. 8:17, *passim*.
17. Acc. to BDB, also מַחֵק (608), עֹבָה (772), עָתָד (800), רָטַב (or רָטַב, 936); cf. list b., *supra*.

H.4

18. Perhaps because of the homonymic $\sqrt{\text{לכר}} = \text{'make bricks'}$ (Gen. 11:3; Ex. 5:7, 14), although this is not frequent enough or as widely distributed as to cause the elision of an identical verb form from the vernacular. At any rate, whether this Qal $\sqrt{\text{לכר}}$ is connected to the לָבָן = colour notion through לִבְנָה - 'brick', 'tile' or is genetically distinct from the latter, it should be considered a homonym (semantic, through polysemy; or etymological/semantic).
19. *Basic Color Terms*, 15ff.
20. Kamhi, *op. cit.*, 269ff.
21. *Grammatik*, 461-463, although not an exhaustive list.
22. Although not necessarily 'milk', as claimed here; cf. II, B.2.0.1.
23. *Op. cit.*, 462.

Part III

A.

A.1

1. For a general list of MH terms (albeit a loosely structured one), cf. Herszberg, האריג, 224-227.
2. For the purpose of this study - where MH is compared to biblical Hebrew, which is the subject of investigation - no distinction is made between the various dialects of MH; see Kutscher, *Enc. Jud.* XVI, 1590ff. Rather, the linguistic corpus is treated *en bloc* as a single entity.

A.2

3. Kutscher, *op. cit.*, 1603.
4. In the following sections only a few references to standard works (dictionaries, concordances) are supplied, because of the concise manner in which the notes are presented. The works used, apart from the texts themselves, are: Levy, Jastrow, Ben Yehuda (dictionaries), Kassovsky (concordances), Kohut (*Aruch*).
5. As in Jewish literature, not as a dialectical designation.

B.

B.2

1. Kedar, *The Vulgate*, 169.

B.3

1. Cf. dictionaries *ad. loc.*

B.5

1. Cf. I, A, and literature cited there.

C.

C.1

1. Albeck, מבוא, 166; Moresheth, לכסיקון, 144, and n. 8 *ibid.*
2. Albeck, *op. cit.*
3. Jastrow, 17, "especially with reference to hair".
4. *Ibid.*, 457-458.
5. *Ibid.*, 681.
6. *Ibid.*, 235ff.
7. As summarized in the dictionaries *ad. loc.*

C.3

1. And cf. Jastrow and Kohut *ad. loc.*
2. And cf. Jastrow and Kohut *ad. loc.*
3. A well organized list is to be found in Herszberg, הארג, 230f.

C.4

1. *Ibid.*, 239-241.
2. *Ibid.*

D.

D.1

1. Herszberg, 226; Jastrow, 60, 665, speculates that the lexeme is an allomorph of the Hebrew קרום, which does not sound convincing.
2. BDB, 702.
3. Jastrow, 670.
4. *Ibid.*, 1169f.; from Greek 'seaweed'; with no colour property apparent in the source language.
5. *Ibid.*, 1229.
6. Jastrow, 1140 Moresheth, לכסיקון, 163.
7. Cf. Jastrow, 1152f.

D.2

1. Yadin, מגילת המקדש II, 23.
2. Jastrow, 1148.
3. Landsberger, 'Farben', 169 - contra Gradwohl, 73ff., who derives זהורית from זָהַר, 'shine'.
4. Landsberger, *op. cit.*, 164f.
5. Kutscher, מלים, 98, 117; see also: II, E.2.3.3. above.
6. Jastrow, 60.
7. Herszberg, 251ff.
8. Yadin, ממצאים, 178ff. Especially interesting for this matter are the colour photographs of dyed cloth supplied.

D.3

1. Jastrow, 1169.
2. Herszberg, 257.
3. *Ibid.*, 261-262.
4. Landsberger, 'Farben', 145, n. 28.

D.4

1. Herszberg, 251ff.
2. Yadin, *op. cit.*, 180ff.
3. *Ibid.*
4. Jastrow, 1480.
5. But cf. Herszberg, 254.
6. *Ibid.*
7. Jastrow, 710; Herszberg, 255.
8. Herszberg, 256f.
9. Cf. Kohut *ad. loc.*
10. Jastrow, 21.
11. Yadin, *op. cit.*

D.5

1. Albeck's commentary *ad. loc.*
2. Jastrow, 774f.

D.6

1. *Ibid.*, 241; Herszberg, 263.

Part V

1. Berlin-Kay, *Basic Colour Terms*, 4.
2. Jastrow, 618, 629.
3. R. Sivan, "אליעזר בן יהודה ותחית הדבור העברי", לשוננו לעם, XXIV, 88f.
4. Jastrow, 375.
5. R. Sivan, "מחיל המלים", לשוננו XXIV, 209.
6. *Op. cit.*, 210. This particular suggestion dates, according to Sivan, from 1898 and was proposed by Yudilevitz. On the other hand, according to R. Weiss, "יהודה בן אליעזר", על חידושי אליעזר בן יהודה, XII, 144, סגול was first introduced into the language by Y.M. Pines in 1894.
7. Ben Yehuda, *Dict.*, XI, 5367.
8. Defined (*ibid.*) as 'reddish black' or 'blackish-brown'.
9. R. Sivan, "חידושי המלים", לשוננו לעם, XII, 41.
10. *Ibid.*, 66.
11. Founded in 1890.
12. Founded in 1953.
13. A certain insight into the energetic activities of ועד הלשון might be gleaned from a cursory glance in any of the first volumes of לשוננו. For instance, within the randomly picked 1944/5 volume, there are lists of terms relevant to the following fields: Psychology (1944: 166-177, 252-258; 1945: 220-233); Music (1945: 62-64); Statistics: (*ibid.*, 234-250); Anatomy (*ibid.*, 251-277); Israeli plants (1944: 106-129). Later the Academy collected most lists and published them, sometimes with additions and corrections, in special booklets. The lists are up-dated, revised, and re-issued periodically.
14. See, among others, the arguments presented by Shalem, "לשמות הצבעים בעברית", לשוננו IV, 16-66; and also the discussion between Har Zahav and Zlotnik in לשוננו I (1928), 127-144 and 443-447 respectively, in which both attempted to explain biblical אדמדם (and its productive potential), and dealt with the wider notion of adapting old forms and patterns to modern usage as well. For statements on the principles which governed the renewal of the language, see

the Hebrew Language Academy, לקט תעודות לתולדות ועד הלשון, והאקדמיה ללשון העברית תר"ן - תש"ל, 1970, 27-35, (on the foundation and the tasks of the Committee for the Hebrew Language), and other articles there, like the one on 125-156 (on the enlargement of Hebrew vocabulary). For general remarks upon the subject see R. Sivan, על אובני לשון ימינו, especially ch. 2 (13-24), 3 (25-28), 6 (53-56), 9 (77-95), and II (109-114).

15. The following remarks relate only to those sectors (2-9) which contain words for colours, pigments and dyes, and not to section 1. (General concepts; concepts for colouring, painting and drawing). As section 1. covers a semantic sector that is almost non-existent in biblical Hebrew - although the position is different in MH - there is no point in positing the suggestions catalogued there *vis-a-vis* the material that belongs to the linguistic strata described in the present work.
16. See the entry in Ben Yehuda's *Dictionary*, XVI, 7752-7753, and Tur-Sinai's notes there.
17. And see objections to some of the proposed forms in Y.E. Zeidman, "הערות אחדות לרשימת מונחי הצבעים", לשוננו VI, 262f.
18. אֲדָמָה - שָׁצֵבֶה דָּם לוֹ. Y. Kena'ani אוצר הלשון I, 32. It must be noted; however, that Kena'ani substantiates his definition, which must perforce be valid for modern Hebrew, by recording biblical material - פְּרָה אֲדָמָה (Num. 19:2) and הַמִּים אֲדָמִים פָּדָם (2 Ki. 3:22). Of these two, the former does not conform to the above quoted definition, whereas the latter is open to other interpretations because of its circumstantial context.
19. Ben Yehudah, VIII, 4118; אבן שושן, IV, 1817.
20. Rabin-Raday, אוצר המלים II, 867-871, צִבֵּעַ.
21. In Ben Yehuda's, XVI, 7748 תָּכֵל is translated *Himmelblau*, azure and described as used in speech and in modern literature (following a certain interpretation of biblical תְּכֵלֶת, *ibid.*, n. 2). There are entries for the term as such in אבן שושן (1951), IV, 1794; אבן שושן (1966), VII, 2854, together with quotations from modern literary sources; and Rabin-Raday, II, 869. However, when Hebrew speakers attempt to define תָּכֵל, they usually employ the syntagma כִּצְבַּע הַשָּׁמַיִם (הַבְּהִירִים) and/or פָּחַל בְּהִיר (אבן שושן). This practice might be indicative of the restricted usage of תָּכֵל (and its derived relatives) to literary or poetic contexts, while פָּחַל בְּהִיר is the more usual term in everyday speech.
22. אוצר המלים II, 867-871.
23. Jastrow, 17.

VII BIBLIOGRAPHY

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BIBLIOGRAPHY

1. For the sake of convenience the following list is divided into two parts:
 - a. Literature originally written or edited in European languages.
 - b. Literature originally written in Hebrew, or that was available to me in a Hebrew edition.
2. Items included are either those that have been extensively used throughout this study, cited in the Notes and/or discussed; or items which have influenced my thinking considerably, although they may not be cited directly.
3. Additional literature - mostly in German and of earlier dates - is available in R. Gradwohl, *Die Farben im alten Testament* (= BZAW 83).

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ABBREVIATIONS

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ABBREVIATIONS

1. *Old Testament Books**

Gen. Ex. Lev. Num. Dt. Josh. Judg. 1 Sam. 2 Sam. 1 Ki. 2 Ki. Isa.
 Jer. Ezek. Hos. Jo. Am. Ob. Jon. Nah. Hab. Zeph. Hag. Zech. Mal.
 Ps. Job. Prov. Song. Ru. Qoh. Lam. Esth. Dan. Ezr. Neh. 1 Ch. 2 Ch.

*Following the order of the BH³

2. *New Testament Books cited*

Matt. Matthew

Luke

Rev. Revelation of St. John.

3. *Tractates Cited from the Mishna, Talmudim, and Tosefta'**

Ab. Zar.	Abodah Zarah	Meg.	Megillah
Bab. Kam.	Baba Ḳamma	Men.	Kenahoth
Bab. Mets. (B.M.)	Baba Metsi'a	Midd.	Middoth
Bekh.	Bekhoroth	Ned.	Nedarim
Ber.	Berakhoth	Neg.	Nega'im
Bets.	Betsah	Nidd.	Niddah
Ed.	Eduyoth	Par.	Parah
Erub.	Erubin	Shabb.	Shabath
Giṭṭ.	Giṭṭin	Sheb.	Shebi'ith
Ḥag.	Ḥagigah	Snh., Sanh.	Sanhedrin
Ḥull.	Ḥullin	Soṭ.	Soṭah
Ḳel.	Ḳelim	Sukk.	Sukkah
m. Kat.	Mo'ed Ḳaṭan	Tann.	Ta'anith
Maas.	Ma'asroth	Terum.	Terumoth
Maas. Shen.	Ma'aser Seni		

*

- Passages from the Mishna and the Tosefta' are cited by tractate, passage and section.
- Passages from the Babylonian Talmud are cited by tractate, folio and page.
- Passages from the Palestinian Talmud are cited by tractate, chapter, folio and column.
- Passages from the Midrashim are mostly cited by section (Parashah), but sometimes according to the biblical verse they refer to.

4. Bibliographical Abbreviations

BASOR	<i>Bulletin of the American School for Oriental Research</i>
BDB	Brown, Driver, and Briggs, <i>Hebrew and English Lexicon to the Old Testament</i>
BH ³	Kittel - Kahle, <i>Biblia Hebraica</i>
CAD	Gelb et al., <i>Chicago Assyrian Dictionary</i>
DB	Hastings' <i>Dictionary of the Bible</i>
Enc. Jud.	<i>Encyclopaedia Judaica</i>
Enc. Miq.	<i>Encyclopaedia Miqra'ith</i> (Biblical Encyclopaedia, in Hebrew)
GB	Gesenius and Buhl, <i>Hebräisches und aramäisches Handwörterbuch über das Alte Testament</i>
G.-K.	Gesenius' <i>Hebrew Grammar</i> (ed. E. Kautzsch, trans. Cowley)
HSM	<i>Harvard Semitic Monographs</i>
HThR	<i>Harvard Theological Review</i>
HUCA	<i>Hebrew Union College Annual</i>
ICC	<i>International Critical Commentary</i>
IEJ	<i>Israel Exploration Journal</i>
JAOS	<i>Journal of the American Oriental Society</i>
JBL	<i>Journal of Biblical Literature</i>
JCS	<i>Journal of Cuneiform Studies</i>
JNES	<i>Journal of Near Eastern Studies</i>
JSS	<i>Journal of Semitic Studies</i>
KB	Köhler and Baumgartner, <i>Lexicon in Veteris Testamenti Libros</i> (1958)
KB ³	Baumgartner et al., <i>Hebräisches und aramäisches Lexicon zum Alten Testament</i> (1967)
NEB	<i>New English Bible</i> (Oxford - Cambridge, 1970-1976)
OTL	<i>Old Testament Library</i>
PEQ	<i>Palestine Exploration Quarterly</i>
RB	(Rev. Bib.) <i>Revue Biblique</i>
VT	<i>Vetus Testamentum</i>
VTS	<i>Supplements to VT</i>
ZAW	<i>Zeitschrift für die alttestamentliche Wissenschaft</i>
ZDMG	<i>Zeitschrift der Deutschen Morgenländischen Gesellschaft</i>

5. *Abbreviations - sources and general*

acc.	according to
adj.	adjective
Af.	Aph ^c el
Akk.	Akkadian
Ant.	Flavius, Antiquities of the Jews
Aram.	Aramaic
Bab., B.	Babylonian (Talmud)
bib.	biblical
cf.	confer, compare
ch(s).	chapter(s)
denom.	denominative verb
dict.	dictionary
f.	feminine
gent.	gentilic (name)
Heb.	Hebrew
Hif.	Hiph ^c il
Hithp.	Hithpa ^c el
Hof.	Hoph ^c al
intrans.	intransitive (verb)
Ithp.	Ithpe ^c el
Jon.	Pseudo Jonathan
K	Ketib
M(asc).	masculine
MH	Mishnaic Hebrew (Hebrew of the Mishna, Talmudim, Midrash, and Qumran)
Mid.	Midrash
Mish., M.	Mishna
MS(S)	Manuscript(s)
MT	Masoretic Text
n(n).	note(s)
n(om).	Noun, nominal form
Nif.	Niph ^c al
Nithp.	Nithpa ^c el
n.pr.	proper noun
NT	New Testament
O, T ^o	Onkelos, Targum Onkelos
opp.	in opposition to, as opposed to

OT	Old Testament
p(p).	page(s)
Pa.	Pa ^C el
part.	participle
pass.	passive verb form
Pesik. R.	Pesiḳta Rabbati
Pi.	Pi ^C el
Pl.	plural
Phoen.	Phoenician
Pu.	Pu ^C al
Q	Qere
1Q Isa ^a	Isaiah: first scroll from Qumran, Cave I
1Q H	Hymns: the Hymns scroll from Qumran, Cave I
Rab(b).	Rabba (Gen. Rabb., Ex. Rabb., Lev. Rabb., Num. Rabb.)
Sam.	Samaritan
sg.	singular
Sif.	Sifra
Syr.	Syriac
T	Aramaic Targum
Tal.	Talmud
Tos.	Tosefta'
trans.	transitive (verb)
Ug.	Ugaritic
V	Vulgate
v(v).	verse(s)
verb.	verb formation
VS(S)	Version(s)
Yer.	Talmud Yerushalmi (Palestinian Talmud)
LXX	Septuagint

6. *Sigla*

*	reconstructed base form
< , >	generation, shift
√	consonantal root sequence
→	shift (semantic or phonetic)

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