

## KARAM COLOUR CATEGORIES

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0.1 Speakers of Karam number approximately 13,000 and dwell in the South-Eastern sector of the Schrader Range and the North-Western fringe of the Bismarck Range in the Territory of New Guinea. The information here reported was obtained among the communities of Kaytog and Gobnem in the Upper Kaironk Valley, Simbai Administrative area,<sup>1</sup> who are speakers of the dialects known locally as etp mnm and ty mnm<sup>2</sup> respectively.

0.2 Initially Karam colour vocabulary was recorded somewhat unsystematically by the author during ethnobiological and general ethnographic enquiries, and by A.K. Pawley and B.G. Biggs in their lexical studies. Later the Munsell Book of Color<sup>3</sup> was used to check shades of foliage, plant tubers, bird plumage, soil types etc., and was also shown to informants.

1.0 We have recorded no term in Karam which approximates in its referents to 'colour' in English. Nevertheless there are many frequently-used terms which obviously either denote or connote qualities of physical appearance which we would describe as 'colour' qualities in English. If one wishes to elicit such terms one may ask such questions as:

<u>m kas wak etp</u> ?	"taro foliage skin what ?"
<u>m kas etp</u> ?	"taro foliage what ?"
<u>m kas etp ayak</u> ?	"taro foliage what it-has-stabilized ?"
<u>m kas etp tek ayak</u> ?	"taro foliage what similar-to it-has-stabilized ?"

1.1 By the use of such questions or their Neo-Melanesian equivalents, and by noting terms used in spontaneous utterances and in responses to questions with different objectives, the following glossary has been recorded. Over-simplified initial glosses are here provided. Items in this list and 1.2 and 1.3 below which are asterisked were spontaneously used in the artificial context of examining the Munsell Book of Color.

1.1.1	* <u>twd</u>	"white, light-coloured"
1.1.2	<u>kayg</u>	"very white or light-coloured, shining white"
1.1.3	<u>kloy</u>	"white, light-coloured", normally only used of human skin or hair.

1.1.4	<u>kwp</u>	"white or light-coloured", especially of a pig or dog.
1.1.5	<u>swm</u>	"grey or greying hair, of men or animals", "grey or greying"
1.1.6	<u>twn</u>	"white ash", "light grey"
1.1.7	* <u>mosb</u>	"black, dark"
1.1.8	* <u>gac</u>	"dirt or mud", "dirty", "certain shades of black or dark grey"
1.1.9	<u>jneb</u>	"dirt, especially that which can be washed or wiped off human skin", "certain shades of black or dark grey"
1.1.10	* <u>lkañ</u>	"blood", "red/purple"
1.1.11	<u>nkm</u>	"blood", "red/purple"
1.1.12	<u>sapay</u>	"blood", "red/purple"
1.1.13	* <u>ajgay</u>	"red talc used by women in preparing string", "a shade of red"
1.1.14	<u>pk, pok</u>	"ripe, of fruit", "orange/bright reddish-brown/bright yellowish-brown/rich yellow"
1.1.15	* <u>sml</u>	"rather bright red-brown or yellow-brown", also "banana cultivar, ripe fruit of which has red-brown skin"
1.1.16	* <u>waln, walnat</u>	"yellow"
1.1.17	<u>kñak</u>	"yellow ochre", "deep yellow"
1.1.18	* <u>mijkab, mjkaskm</u>	"leaf-living", "leaf-foliage-living", "green"
1.1.19	* <u>gwsay-kas</u>	"hop-bush foliage", "green"
1.1.20	* <u>saby-agn</u>	"palm-grass base", "green"
1.1.21	<u>km</u>	"living, alive (of humans, animals, plants)", "green"
1.1.22	<u>ksk</u>	"unripe, of fruit", "pale green/yellow-green"
1.1.23	* <u>lban</u>	"succulent or mature, of foliage", "oily, greasy", "sheeny, rich green"
1.1.24	* <u>gs, gsgs</u>	"dull brown, green or olive"
1.1.25	<u>mlp, mlep</u>	"desiccated or withered, of foliage or body-tissue", "straw-coloured"
1.1.26	* <u>mok, mwk</u>	"blue". Homonyms, possibly etym. related; "Lepidoptera"; "opaque fluids, including milk, semen and sap of certain plants"
1.1.27	<u>maym</u>	"blue"
1.1.28	* <u>snak</u>	"clay which is light blue-grey when dry, dark blue-grey when damp", "blue-grey"

- 1.1.29 kl, klkl, klwan "stripes, as in facial tattooing", "striped, spotted, mottled"
- 1.1.30 kl patpat "with long, well-marked stripes"
- 1.1.31 tbj-jwan, kl tbj-jwan "with well-marked, distinctive spots"

1.2 Certain of the terms listed in 1.1 may be used with qualifiers, to make finer discriminations:-

- 1.2.1 yb "name", "real or true", e.g. lkan̄ yb - "truly red", \*mosb yb - "very black", \*mjkmab yb - "really green"
- 1.2.2 skoy, skoy-skoy "little", "very little", e.g. lkan̄ skoy-skoy - "slightly red"
- 1.2.3 am "decay", "deep", as recorded in \*lkan̄ am - "deep or dull red", mok am - "deep or dull blue"
- 1.2.4 ayp "it becomes", i.e. "showing a trace of", e.g. \*lkan̄ ayp - "showing a trace of red"
- 1.2.5 -sek "possessing", e.g. lkan̄-sek - "red", "partially red"

1.3 Certain of the terms listed in 1.1 can also be used in combinations (composite lexemes) denoting intermediate colour taxa. The following have been recorded:-

- 1.3.1 mosb-lkan̄ "dark/dull red/purple"
- 1.3.2 \*twd-lkan̄ "pink"
- 1.3.3 twd-mok "pale blue, bluish-white"
- 1.3.4 lkan̄-walnat "orange"
- 1.3.5 \*mok-lkan̄ "purple"
- 1.3.6 pk-gsgs "dull reddish-brown (i.e. medium-brown shade of Karam skin colour)"

1.4 Most terms listed in 1.1 are used not only as unitary lexemes denoting or connoting colour qualities, but also as segments of composite or compound lexemes which are names for taxa in other domains (e.g. n̄ kloy, lit. "child white", i.e. "albino"; kabay mosb, "bird-of-paradise black", i.e. "adult male Loria's Bird of Paradise, Loria loriae"; alḡ nkm, lit. "lower-leg red", i.e. grass taxon, Eulalia trispicata, which is reddish in colour). However there are many other terms occurring as segments of composite lexemes in Karam biological nomenclature, which have colour connotations. A small sample is listed here:-

- 1.4.1 kalom "ochre", also "red dye-plant, Bixa orellana". sep kalom - bird taxon comprising adult males of honey-eater Myzomela rosenbergii, which has conspicuous red plumage".

- 1.4.2      bj                      "charcoal". sep bj - "bird taxon comprising female and immature male honey-eaters, Myzomela rosenbergii, which have dark brown plumage, with only a very small area of red feathers"
- 1.4.3      sgy                      "charcoal" (synonym of bj - 1.4.2). Used as name for yam (Dioscorea) and sweet-potato (Ipomoea batatas) cultivars with dark-skinned tubers.
- 1.4.4      pkay                     lit., "having the quality of pk (1.1.14)". Applied to a frog taxon, a variant of Hyla angiana, which has a bright reddish belly.
- 1.4.5      jbog                     "bird taxon, lorikeet, Charmosyna pulchella". Also, "cultivated shrub, Phyllanthus sp.", which has yellow-green foliage, likened by informants to plumage of bird.
- 1.4.6      gasln                    "bird taxon, lorikeet, Neopsittacus muschenbroekii". Aljaw gasln - "Nut-pandanus taxon, kernels of which have red and yellow tinged skin, likened to plumage of bird".

2.0      In an attempt to arrive at a more satisfactory understanding of this vocabulary, of the concepts to which the lexemes refer, four classes of data will be considered. First I discuss polysemy and etymology. Secondly I note statements which may be elicited from Karam themselves about the relationships, in the abstract, of their colour categories. Thirdly I discuss records of spontaneous use of the terms, including both the contexts in which they are used and the objective referents in so far as these can be established by comparison of objects identified with the colour charts contained in the Munsell Book of Color. I note that there are some substantial discrepancies between Karam generalisations and their actual application of colour vocabulary. Fourthly I discuss, somewhat perfunctorily, the symbolic associations of certain colours, and the emotive associations which they appear to have.

2.1      Polysemy and etymology. It will be seen that 14 terms listed in 1.1 have referents which are substances or objects, as well as 'colour' referents (swm - "grey hair", twñ - white ash", gac, jneb - "dirt", lkañ, nkm, sapay - "blood", ajjay - "red talc", sml - "banana cultivar", kñak - "yellow ochre", mjkmb, gwsay-kas, saby-agn - "living vegetation", snak - "blue clay").

This at once suggests the possibility that Karam have in mind the qualities of these specific substances or objects when they are applying the same terms to other objects: and indeed informants have told me on a number of occasions that this is precisely what they are doing.

Two of the remaining terms are restricted in their application to certain domains (kloy, kwp - "white, light-coloured", of human skin and hair, and pig or dog, respectively) in such a way that it is also reasonable to assume that they too are essentially identified with particular substances. Five other terms combine reference to colour qualities with reference to qualities of different kinds (pk - "ripe", km - "living", ksk - "unripe", lban - "succulent", "juicy", mlp - "dessicated").

Apart from the three terms implying colour-contrast (kl and its compounds), this only leaves six terms which are not apparently relatable to rather specific objects, substances or processes (twd - "white", "light-coloured", kayg - "very white", "shining white", mosb - "black", "dark", waln - "yellow", mok, maym - "blue") though even in two of these cases there is some tendency in this direction. Informants spontaneously referred to shell ornaments or to the glistening white signal plaques (kokon) of inner banana stems which they set up on hill-sides, to illustrate the meaning of kayg; while mok (= "blue") is possibly both etymologically and semantically related to mok (=Lepidoptera), since certain of the most conspicuous large butterflies in the Karam region are brilliant blue in colour.

However, while considerations of polysemy and etymology may strongly suggest that Karam see colours not fully in the abstract but as qualities pertaining to particular phenomena, these cannot provide adequate specifications for actual use of colour vocabulary. As will be shown below, even if lkan is ideally "blood-colour", the term is applied in different contexts to very wide saturation and value ranges of red and purple hue: while pk, though described spontaneously by informants as the yellow of ripe bananas, is also regularly applied to light and medium-brown shades of human skin.

## 2.2 Karam conceptions of the relationships of their colour categories

Establishing the status of colour taxa by questioning is very much more difficult than establishing the status of kinship categories or ethno-biological taxonomies, e.g. bird taxa or sweet-potato taxa, by the same means. I have no observations of Karam spontaneously discussing "abstract" colour classification whereas I have frequently listened to them animatedly arguing among themselves about the identification and classification of plants and animals.

I have asked informants questions of the following forms:-

waln pk nokom ayak ? "yellow ripe one it-has-stabilised?"  
("Are 'yellow' and 'ripe' the same?")

waln pk tek ayak ? "yellow ripe similar-to it-has-stabilised?"  
("Is 'yellow' like 'ripe'?")

waln key pk ok key ?

"yellow separate ripe this separate?"  
("Is 'ripe' different from 'yellow'?")

Responses to questions of these kinds indicate some measure of equivalence between certain terms, as reported in Table I below. However it is apparent from further questioning and from analysis of spontaneous uses of the terms concerned that the statement X Y nokom ayak ("X and Y are the same") can indicate semantic relationships of several different kinds. These include: complete coincidence of referents, i.e. true synonymy; inclusiveness, the more restricted referents of one term being comprehended within the wider range of referents of the other (and with the restrictions on the use of one term operating in one or both of two different ways, i.e. in the range of domains in which the term can be applied and/or in the range of colour and associated qualities to which it is applied); and overlap of referents, so that certain only of the referents of X coincide with certain only of the referents of Y. In establishing which of these relationships applies, two special problems are encountered, one logical, the other ethnological (or cultural).

The logical difficulty is that whereas it is possible to cite positive evidence that two terms do not have precisely the same range of referents, one must ultimately rely on negative evidence to support an assertion of precise synonymy, namely that one has not (so far) hit on contexts where only the one term and not the other can appropriately be used.

The ethnological (or cultural) difficulty is that Karam, like many other Oceanic peoples, have elaborate systems of word taboos. Thus an individual may not use any lexeme which occurs as the name or the stem segment of the name of any of his affines or same-sex cross-cousins. In speaking to or about the tabooed kinsman he may use kinship terms, teknonyms, or alternative names which frequently though not always bear some semantic relationship to the usual name. In other contexts he avoids the tabooed word by use of synonyms, partial synonyms or circumlocutions. Further, the whole Karam population has to avoid use of a major portion of their every-day vocabulary during the early dry-season weeks while they are in forest camps collecting pandanus nuts, but must substitute an alternative vocabulary known as aljaw mnm ("Pandanus language"), which coincides to a fair extent with alternative vocabulary used in connection with personal name taboos.<sup>4</sup>

There is a strong tendency for informants to say that two terms are the same if they can be used as substitutes in contexts of name taboo or Pandanus language. Frequently however relationship is one of only partial synonymy. This is obvious to the investigator where a man's usual name is Wcm ("species of ring-tail possum") and alternative name Kmn ("game mammal"), or where the Pandanus language alternative for maj ("sweet potato") is gaw,

which applies not only to sweet potato but to yams and the root-bearing Pueraria plant as well. It is not so easy for the investigator to decide whether colour terms such as pk and sml (1.1.15) which also appear as alternatives in these contexts have identical or merely overlapping referents; though, if kinship and ethnobiological categories are any guide, one principle appears to be that, where a substitute term does not have the same range of referents as the original, its range will be wider and not narrower.

Table I re-orders the terms listed in 1.1 reporting the equivalences stated by informants, together with brief notes on precise semantic relationships, insofar as these have been established.

Table I: Semantic relationships of Karam Colour terms which are stated by informants to be equivalent.

<u>twd</u> (1.1.1)	<u>kayg</u> (1.1.2)	sub-taxon
	<u>kloy</u> (1.1.3)	possibly full synonym, but normally restricted to certain domains only; word-taboo substitute.
	<u>kwp</u> (1.1.4)	sub-taxon restricted to certain domains only.
<u>swm</u> (1.1.5)		
<u>twn</u> (1.1.6)		
<u>mosb</u> (1.1.7)	<u>gac</u> (1.1.8)	sub-taxon; but also word-taboo substitute.
	<u>jneb</u> (1.1.9)	certainly a sub-taxon of <u>mosb</u> , possibly a sub-taxon of <u>gac</u> .
<u>lkan</u> (1.1.10)	<u>nkm</u> (1.1.11)	? full synonym; standard word-taboo substitute.
	<u>sapay</u> (1.1.12)	? full synonym; <u>ty mnm</u> and Asai Valley dialect term.
	<u>ajgay</u> (1.1.13)	sub-taxon.
<u>pk</u> (1.1.14)	<u>sml</u> (1.1.15)	sub-taxon restricted to certain domains only; word-taboo substitute.
<u>waln</u> (1.1.16)	<u>pk</u> (1.1.14)	overlap of referents; neither subsumable under other.
	<u>knak</u> (1.1.17)	sub-taxon.
<u>mjkmab</u> (1.1.18)	<u>gwsay-kas</u> (1.1.19)	? full synonym.
	<u>saby-agn</u> (1.1.20)	? full synonym.
	<u>km</u> (1.1.21)	? full synonym.

ksk (1.1.22)

lban (1.1.23)

gs (1.1.24)

mlp (1.1.25)

mok (1.1.26)

maym (1.1.27)

? full synonym; word-taboo substitute.

snak (1.1.28)

kl (1.1.29)

kl patpat (1.1.30)

sub-taxon.

tbj-jwan (1.1.31)

sub-taxon.

### Spontaneous use of colour categories

Table I indicates that Karam appear to have 15 colour categories (including one indicating colour contrast) which, ideally at least, are not subsumable under each-other. But just as some of the categories which they regard as in some sense equivalent are in practice applied differentially, so, conversely, many of the categories they regard as different are in fact applied with a large measure of overlap, if referents are assessed purely in terms of objective colour dimensions.

Here the question of context is crucial. We find, firstly, that in different domains different sets of terms are applied, and that in some instances the use of a term which can appropriately apply to a certain colour in one domain is felt to be inappropriate in application to the identical colour in another. Secondly, the same term may be used in two or more domains, but with different ranges of referents. Thirdly, in the same domain different terms may be applied to objects of precisely the same hue, saturation and value, depending on the immediate context of comparison with some other object.

3.1 Table II reports the application in 8 domains of the 15 "irreducible" taxa from Table I. In cases where I have not recorded spontaneous use, I have asked informants whether or not the designations could be appropriately applied. All these terms except swm, twm, ksk and kl were also spontaneously used in the artificial context of naming chips in the Munsell Book of Color.

3.2 The non-application of certain terms in certain domains may be explained by three factors. One is the obvious one that certain domains (e.g. human skin) provide, objectively, a far narrower range of hue and value than do others (e.g. bird plumage). The second, which applies specifically to the non-occurrence of the standard terms for "green" (mjkmab, gwsay-kas, saby-agn) in description or identification of vegetation is simply that,



Table II: Application of Karam colour terms in different domains

	Bird plumage (yakt kas)	Foliage (mi kas, mon kas)	Mammal fur (kmm kas)	Frog skins (as wdk)	Stones (kab)	Sky & Cloud (seb)	Human skin (b wdk)	Soil (lwm)
<u>twd</u> (1.1.1) "white", etc.	+	+	+	+	+	+	+	+
<u>swm</u> (1.1.5) "greying"	-	-	+	-	-	-	-	-
<u>twm</u> (1.1.6) "ash", etc	+	-	(+)	-	(+)	-	-	-
<u>mosh</u> (1.1.7) "black", etc.	+	+	+	+	+	+	+	+
<u>lkan</u> (1.1.10) "red", etc.	+	+	+	+	+	(+)	(+)	+
<u>pk</u> (1.1.14) "ripe", etc.	+	(+)	+	+	-	-	+	+
<u>sml</u> (1.1.15) "red-brown", etc.	+	-	+	-	+	-	-	-
<u>waln</u> (1.1.16) "yellow"	+	+	-	+	(+)	-	-	-
<u>mlkmab</u> (1.1.18) "green"	+	-	-	+	-	-	-	-
<u>ksk</u> (1.1.21) "unripe"	-	(-1)	-	-	-	-	-	-
<u>lban</u> (1.1.23) "succulent", etc.	-	+	-	(+)	(2)	-	-	(+)
<u>gs</u> (1.1.24) "dull brown", etc.	+	+	+	-	-	-	+(3)	(+)
<u>mlp</u> (1.1.25) "withered", etc.	-	+	-	+	-	-	-(4)	(+)
<u>mok</u> (1.1.26) "blue"	+	(+)	-	-	+	+	-	-
<u>snjk</u> (1.1.28) "blue-clay"	+	-	-	-	-	-	-	+
<u>kl</u> (1.1.29) "striped", etc.	+	+	+	+	+	(+)	+(5)	-

+ = recorded in spontaneous utterances.

(+) = stated by informants to be an appropriate designation, but not recorded in spontaneous utterances.

- = not appropriately used.

For numbered notes see "Footnotes", p.

by definition as it were, living foliage is 'living-foliage' colour. When I asked informants why they did not use these terms for foliage they were puzzled by the question, then said, "it's all mjkmab, that's all." The third is that objects in certain taxa are apparently lacking in the qualities or dimensions which intersect with hue, saturation and value. Thus the dimension "succulent - dessicated" isn't seen as relevant to bird plumage or mammal fur, so lban and mlp are not used there, though they are appropriate in discussion of frog-skins or soils. "Ripeness" on the other hand, or the shades of ripe fruit, are seen as occurring in bird-plumage and mammal fur.

3.3 The application of the same term to different ranges of colour in different domains is strikingly illustrated in the case of pk (1.1.14). As applied to fruit (bananas, pawpaws) it covers the Munsell ratings approximately 5YR-5Y 6-8/7-8; as applied to human skin, approximately 2.5-5YR4-5/4-6, which would normally be described as gs or gac in the case of fruit skins. Another example is that of lkan (1.1.10), applied in the case of bird plumage to bright reds and purples in the range 5RP-2.5YR 4-8/8-12, whereas it is applied to plant foliage in the duller purple ranges delimited by 10P-10RP3-8/2-8, which would normally be described as mosb or gac if they occurred on bird feathers.

This latter phenomenon is linked to the fact noted above (3.2) that Karam do not use the standard terms for "green" in describing vegetation. Instead they differentiate it as twd ("light-coloured"), mosb ("dark"), lkan ("red/purple"), waln ("yellow") gs ("dull brown/green"), lban ("succulent green"), mlp ("withered"), etc.

3.4 Application of different terms to the same colours in the same domains, but in different immediate contexts of comparison, is well illustrated by my records of identifications of sweet-potato foliage. Leaf surfaces of Munsell rating 5GY/4/4 were variously identified as mosb ("dark"), waln ("yellow") and lban ("succulent green"), depending on the context of comparison with other leaves, stems or other vegetal parts. Leaf-parts which rated 5GY6/4 were variously identified as twd yb ("truly light-coloured"), twd ("light-coloured") and gsgs ("dull green"), depending on context.

4.0 Finally, it might be expected that symbolic use of colours, and culturally standardised emotive associations of certain colours, would be relevant to their classification. These are topics that I have not yet investigated in adequate detail. However it appears that Karam colour symbolism does not lend itself to analysis in terms of a coherent set of simple oppositions between basic colours, of the kind that has been reported in many cultures. The three symbolically most important colours, white, black and red, all seem

to have both positive and negative associations. Thus twd ("white", etc) is the colour of the ghosts of the dead (and for this among other reasons Europeans were initially identified as returning ghosts) in opposition to mosb ("black"), the colour of normal, living human beings. Because of its association with death, albinism (which occurs with notable frequency among Karam) and Europeans, we might infer that white has "bad", negative associations. Yet at the same time most shell ornaments, traditionally highly valued, are twd, as are the white trade beads which for some years after initial European contact were chosen by Karam in preference to other kinds. Mosb - "black" - is good and normal as skin colour, but the sub-category or partial synonym, gac, is 'bad', associated with filth, and applied specifically to what was formerly only a marginally human people so far as the Karam were concerned, the very dark-skinned lowlanders of the Ramu Valley.

There is an evident symbolic opposition between black (as manifested by charcoal, used as a cosmetic by warriors out to kill) and lkan̄ ("red" and "blood"), standing for human and animal life. Yet the associations of lkan̄ are not unambiguous, perhaps because blood itself is ambiguous, both potent and defiling (in the case of blood of a slain man, of a menstruating or parturient woman, of a cassowary or of a dog). "Red" ochres and plant dye-stuffs, used in personal adornment, and certain "red" plants (Cordyline and Palm-grass cultivars) tend to have high ritual significance. Red feathers are in some cases highly valued and admired, though the most highly valued for local ornament are the yellow plumes of the Lesser Bird of Paradise and the black plumes of the Stephanie Bird of Paradise. Red trade beads have only gradually and over ten years of contact with Europeans and non-local New Guineans overtaken white in favour. Green and blue are both highly rated colours in personal ornament, but I have been unable to discover any symbolic associations of either, except that green is of course the colour of healthy vegetation. pk ("ripe" or "orange" etc) is obviously good - hence perhaps the puzzling shifts of referents in different domains.

Thus the most that can be said at the present appears to be that red (lkan̄), black (mosb) and white (twd), are all potent, highly-charged colours, but all ambiguous or ambivalent in their potency, depending for their positive or negative rating on the specific co-text in which they occur.

## 5.0 Summary and Conclusions

5.1 The Karam language has a relatively rich terminology for describing colour qualities, and for referring indirectly to colour qualities. That this is the case can be

readily related to the importance of discriminating wide ranges of wild and cultivated plants, animal forms, soils, stones and other natural phenomena.

5.2 At the same time no Karam concept has been recorded which approximates to that of "colour" in English. While some Karam terms exist which can be glossed reasonably accurately by reference to the dimensions of hue, saturation (or chroma) and value (or brightness) which adequately specify the domain of 'colour' in English, other Karam terms which fall in the same contrast sets involve use of additional dimensions including unripeness - ripeness, succulence - dessication, dirtyness and patterned contrast.

This intersection of colour dimensions with semantic dimensions of other kinds is not of course peculiar to Karam. In English we sometimes speak of "harsh reds", "luscious greens", "shocking pink", or "revolting" shades of whatever colour the landlord has chosen for redecorating the bathroom. All that the Karam, like the Hanunoo of the Philippines,<sup>5</sup> are doing is to carry this trend some stages further.

5.3 The majority of frequently used Karam terms in this (implicit) domain must be regarded as having both ideal, absolute referents and also, in contexts of comparison of objects, relative or directional referents.

5.4 In different domains of application (e.g. vegetation, soil, human skin) the same terms may in some cases be applied to somewhat different colour ranges, and different, normally contrasting, terms be applied, in some cases, to the same colours.

5.5 In contrast with analyses offered for colour domains in some other folk-cultures<sup>6</sup> Karam colour concepts cannot be arranged in a simple taxonomic hierarchy in which the top level is constituted by a small number of irreducible and mutually exclusive categories, within which all other categories can be subsumed. On the contrary, there are 14 or 15 categories none of which is fully reducible to any of the others, either in Karam rationalizations or in terms of referents recorded in spontaneous utterances. Although there are considerable areas of overlap in the application of different terms, there are, in at least some contexts, directional contrasts between any two of them.

5.6 I would tentatively suggest that a more appropriate model than that of a hierarchical taxonomy for representing Karam colour categories is that of 'target areas' or 'semantic foci'<sup>7</sup>. Considerations of polysemy, together with some statements by informants themselves about the nature of their categories, suggest that this model has some psychological validity. It is also more adequately reconciled with the overlapping spontaneous referents of different terms than is the hierarchical model. At the same time, because

of differential use of terms in different domains of application, even a single specification of "target (colour) areas" in the abstract is not adequate to account for all recorded usages.

### Footnotes

<sup>1</sup>The Karam and Kopon peoples of the Kaironk Valley are the subject of a continuing programme of linguistic and social anthropological research by members of the Department of Anthropology, University of Auckland, and of the Department of Anthropology and Sociology, University of Papua and New Guinea. In twelve months fieldwork in 1960, 1963-4, 1965-6, 1967-8 the author has concentrated on Karam ecology and classification of plants and animals. Financial support for this field work from the New Zealand University Research Grants Committee, the U.S. Department of Health, Education and Welfare (M.H. 07957-01), the Golden Kiwi Lotteries Fund Scientific Research Committee of New Zealand, and the University of Papua and New Guinea is gratefully acknowledged.

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<sup>2</sup>The phonemic orthography here adopted is that of Biggs (1963) as emended by Pawley (1966).

<sup>3</sup>Munsell Color Company 1929-1960.

<sup>4</sup>c.f. Bulmer 1967: 12, 15.

<sup>5</sup>Conklin 1955.

<sup>6</sup>Conklin op. cit.: Sturtevant 1964:117-9.

<sup>7</sup>I am grateful to Charles Modjeska for discussion of this and other points relevant to this paper and for permitting me to read his unpublished thesis which includes a very useful section on the problems involved in analysing colour categories (Modjeska 1967: 125-9 and passim).

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Footnotes to Table II

- (1) = apart from use for fruit, applied to pale green, immature grasshoppers.
- (2) = used only of cooking stones which are moist and shiny from fat and vegetable juice they have absorbed in the earth oven.
- (3) = used only in combination pk-gsgs - "Dark brown (skin)".
- (4) = only used without any colour connotation (for skin of elderly person).
- (5) = in this context, "tattooed".

Revised version of talk given at Second Annual Conference of KIVUNG, Port Moresby, October 12, 1968.