‘WE DON’T TALK MUCH ABOUT COLOUR HERE’: A STUDY OF COLOUR SEMANTICS ON BELLONA ISLAND

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I

Introduction

In one sense this is an article about little. It concerns the classification and use of colour terms in a society where colours are fairly unimportant. However, an analysis of this particular aspect of the cultural concepts of Bellona Island presents an example of how different cultures focus upon different aspects of the world which surrounds them, and how very differently they classify them.

Our problem in connexion with the present study is not only that the Bellonese are fairly uninterested in colours as such but also that evidence seems to show that colour can hardly be considered a separate cultural category on Bellona as is the case in Western cultures. This poses our first anthropological dilemma. Why have we chosen to focus our interest on colours as an isolated category in a culture where it can only with difficulty be studied as such? Also, could this type of study not be classified under the heading of traditional ethnocentric social research, and is it not doomed to failure because it could be a classical case of the anthropologist imposing his own cognitive system on a culture over which it perhaps does not fit?

Our reason for making this study has been a wish to make a contribution to the growing body of data concerning ethno-classification and of the methodological problems concerned therewith. The fact that colours in Bellonese culture seem to be so unimportant naturally aroused our curiosity as Westerners. Rather than leave this area unexplored we considered it a challenge to find out whether Bellona was actually a grey and colourless world in a cognitive sense, and also which method would actually be applicable to a study of this type. We were constantly aware of the immense methodological problems connected with a study of this kind.

We shall present a set of data concerning the actual classification and use of colour terms on Bellona, and also discuss some of the methodological problems connected with our research. We shall also consider some additional problems related to ethnoscientific research in general.

Among those who have made valuable contributions to the understanding of the classification of colours in non-Western societies is Conklin (1955) who has inspired us to look for unexpected ways of categorising colours. Berlin and Kay were our source of inspiration for the idea of a possible semantic development of colour terms in different cultures, and also of the use of a specific set of colour chips standardising the stimulus material. Although the use of Munsell colour chips was of distinct value during the initial stages of our research, they soon proved to be
insufficient as a means for a deeper penetration into the exact position of colours in Bellonese culture.

Area

Bellona Island is a raised Polynesian outlier atoll of 22 sq km in the British Solomon Islands. It has a total population of approximately 800. Due to its isolation it remained relatively untouched by European culture until approximately 1938 when the tenets of Christianity were introduced. The increasing communication between the islanders and the rest of the Solomons over the last decade has resulted in certain social and linguistic changes. The development of Bellonese colour terminology will exemplify this.

II

Classification on Bellona

It is necessary before presenting our data and the subsequent analysis to emphasise that the Bellonese organisation of colour terms is not in any sense a rigid and stable one. Its similarity to the standard colour classifications which we find in our own culture is insignificant. This may be due to the comparative lack of use of colour terms among the Bellonese. However, in other cultural or natural areas which are in the focus of their daily interests, their classification of objects and relations are found to be more detailed and rigid than similar classifications in our culture. And where their classifications are concerned with domains in which we also classify there is often very little correspondence between the two.

Examples of this are the extremely detailed separation of the various growth stages of plants, e.g. the important ngeemungi fruit, bananas, and yams. Another example may be the complicated Bellonese systems of counting with classifier suffixes indicating the nature of the counted object. There are fourteen different systems, each corresponding to one of the following categories: 1) general counting; 2) fauna and large objects; 3) small fish and taro bunches; 4) mollusks; 5) coconuts, round objects; 6) piles and bags of food; 7) yam pairs; 8) banana piles; 9) larger taro bunches; 10) trees and long objects; 11) flat objects; 12) thatch panels; 13) fathoms; 14) canoes and coconut shells (Elbert in press).

Another interesting example of the difference between Bellonese 'systems' and those in other cultures is that the Bellonese feel much freer than we do to change classifications whenever needed. For example the Bellonese recognise that there are twelve lunar months between harvest seasons. However, unlike Western cultures they feel free to make temporary changes of the names of the months when the weather is not found suitable for planting or harvesting.

Hypothesis

On the basis of previously collected data we began our research with the hypothesis that the Bellonese had a number of basic colour terms, plus a set of contextualised terms, and that they also used a number of terms qualifying colours. The basic colour terms were believed to be: 'ungi' ('black'), 'unga' ('red'), 'susungu' ('white'), 'sesenga' ('violet'), 'hengohengo' ('yellow'), 'usi usi' ('blue'), 'sinussiu' ('green').
The contextualised terms were to some degree unsystematised. Qualifiers were thought to consist of such terms as: *hu'ai-* (very), *mi'i-* (little, somewhat), and also of a number of reduplicated forms of basic colour terms.

It was also our hypothesis that colours played a fairly insignificant role in Bellonese life. We have noted an extraordinary absence of colour terms in Bellonese myth, quasi-history, and in other types of Bellonese folklore previously collected (Elbert & Monberg 1965).

**Stimulus material and methods**

A set of 329 Munsell colour chips was used. Apart from a few substitutions made due to the unavailability of certain chips, the set was identical with the one used by Berlin and Kay (1969: 5-7). Whereas Berlin and Kay had their chips pasted on a piece of cardboard, we preferred to insert the individual chips into separate transparent plastic bags. The purpose was not only to protect the chips from being discoloured by informants' handling of them but also to make it possible for us to test methods of data collecting different from those used by Berlin and Kay.

Apart from using colour chips, so very alien to Bellonese concepts and to their daily life, we attempted to elicit the local colour terminology in relation to its natural setting.

Our data were collected in the following way:

1. We began by asking informants individually and in groups which terms they had for different colours.
2. We then asked a number of individuals which objects had the colour X, Y, Z, and also which objects did not have these colours.
3. We then asked informants to pick out objects from the beach, the bush, the ocean, the gardens, and other natural settings, having specific colours, and to name their 'colours'.
4. We placed the Munsell chips on a camp bed with the coloured side facing upwards, and in random order. Informants were asked to group the chips according to their own preference and in order for us to be able to elicit the possible system of classification within Bellonese culture.
5. The chips were placed on the camp bed with their colourless back facing upwards. Each chip was picked up by us in random order and given to the informant who was then asked to give it the Bellonese colour name.
6. The entire set of colours were placed next to each other, according to the spectral system, and as done by Berlin and Kay a piece of clear acetate was placed over the chart, and the informant was asked to draw lines on the sheet according to the way he wanted to group the colours.
7. The colours were placed as under 6 above but without the layer of acetate. We successively mentioned the Bellonese colour terms previously collected and asked our informants to point to those chips which could possibly be classified under each term.
8. During the progress of research it became obvious that the Bellonese had a neatly structured system of colours comprising three basic terms plus a sub-set of contextualised terms with more vague boundaries and a number of qualifying terms. For this reason we asked the informants to subdivide the colour chart into
basic colour groups and, later, to elaborate this classification with other terms, whenever possible.

9. To check how the recent encounter with European culture might have influenced the colour terminology on Bellona we asked a number of younger informants who had been in contact with the English language to classify the colours of each chip on the chart according to both the Bellonese system and to what in their opinion was the English system of classification. The sessions took place over two days. On the first day the informants were asked to make a Bellonese classification. On the following day they were given the task of classifying the same stimulus material according to what they believed to be the English system.

One reason for trying so many different methods on what to some might seem a trivial subject was primarily that both of us felt that methods such as those used by Berlin and Kay did not provide us with tools sufficiently flexible to reveal the actual use of colour terms and the relation between the 'pure colour' aspect and other aspects of the object in the culture (texture, context, relationship to preceding stages of development). The following presentation of data will show that the rigid use of a colour chart does not disclose the richness of, for example, contextualised colour terms. Neither does it show the capacity for semantic changes within a society in cultural transition.

Definitions of concepts

As for the definition of basic colour terms we have found it useful to adopt that of Berlin and Kay (1969: 5-7):

a. 'It is monolexemic: that is, its meaning is not predictable from the meaning of its parts.'
b. 'Its signification is not included in that of any other colour term.'
c. 'Its application must not be restricted to a narrow class of objects.'
d. 'It must be psychologically salient for informants. Indices of psychological salience include, among others, (1) a tendency to occur at the beginning of elicited lists of colour terms, (2) stability of reference across informants, and across occasions of use, and (3) occurrence in the ideolect of all informants.'

Berlin and Kay think that these four criteria are sufficient to determine the basic colour terms in a given language. As additional criteria for doubtful cases they supplement their list with the following:

e. 'The doubtful form should have the same distributional potential as the previously established basic terms.'
f. 'Colour terms that are also the name of an object characteristically having that colour are suspect, for example, gold, silver, and ash.'
g. 'Recent foreign loan words may be suspect.'
h. 'In the cases where lexemic status is difficult to assess (see criterion [a]), morphological complexity is given some weight as a secondary criterion.'

As a further criterion we find it necessary to add that a basic colour term must be productive in the sense that it can be applied to foreign objects hitherto not known on the island.
A basic colour term must thus comply with all the criteria mentioned above. Unlike the basic colour terms which constitute general classes of colours the Bellonese language also has a number of what we have tentatively called contextualised colour terms, that is terms which are invariably linked to specific natural and cultural objects and which cannot be used in an indiscriminable or abstract way. Their use is often extremely limited. We define these terms as follows:

i. A contextualised colour term can always be classified as a sub-term under a basic colour term.

j. Its application is always restricted to a narrow class of objects.

k. It must not be a loan word introduced after closer contact with the outer world in 1938.

l. It must not be productive in pre-contact Bellonese language.

Contextualised colour terms do not comply with the criteria for basic colour terms, except perhaps for the criterion of being monolexemic. The exception is due to the fact that it is often difficult both for Bellonese informants and for us to determine whether another meaning of the word is actually the original meaning of a contextualised colour term. An example is tiha (vertical coral cliffs with no vegetation—shiny white or light as large surfaces). Some of these terms are today in the process of being transformed into basic colour terms. This is due to a rising need for a more elaborated colour vocabulary after contact with the outside world.

To establish a more refined distinction between colours the Bellonese sometimes make use of what we in this connexion have termed qualifiers. They are such prefixes as hu'ai-(very), and mi'i-(little). Other qualifiers are for example to'a (strong), maangama (clear).

Also basic colour terms or even contextualised terms may appear in conjunction with other colour terms thus acting as qualifiers. An example is unga 'ungi ('dark' unga), unga toto toto (blood-ish unga).

Certain colour terms may also be reduplicated to emphasise or diminish the extent of hue, value, and/or chroma as for example gheta (process of reddening or yellowing, as of flora and fauna), and ghetaghega, the diminutive form.

Informants

We had worked for many years on Bellona, and had established close personal relationships with a large number of our informants. We had both worked with most of them on other aspects of their culture, and an atmosphere of mutual confidence and understanding existed. All discussions and interviews were carried out in the local language, and many were recorded on tape as well as in writing.

Twenty-five adult informants participated in our experiments. Eighteen of these were males ranging from about nineteen to seventy-seven years of age. Seven informants were females from about eighteen to fifty-five years. Seventeen of our informants were adults before the introduction of Christianity in 1938 and thus well versed in the more archaic language and also relatively un influenced by the Europeanisms introduced with the new religion. Two of our young informants were not able to complete the test due to ignorance of most of the colour terms, and thus excluded.
No specific term for ‘colour’

We do not believe the semantic category of colour to be universal. Although the language of the neighbouring islands of Rennell and Bellona may justifiably be classified as one of the Polynesian languages6 with the most elaborate vocabulary it seems characteristic that people on Bellona have no general term for ‘colour’ as such. Three words, however, may be used to describe the colour-like qualities of objects or persons, including what we might term colours: mouhange (vary-kind), mounoho (vary-wayed), moukingi (vary-surfaced). None of these words applies merely to the colour of objects. They could also be used to differentiate smells, different kinds of skin (of human races) (mouhange o na kingi), other surface qualities of persons and objects. Mounoho also means to wink, as with the eyes.

Those Bellonese who are familiar with the English language and Western concepts today use the loan word ‘kala’ (colour) if they want to talk about colour in a Western way (see Monberg 1971).

Data

It was not until fairly late in our research that we discovered that the Bellonese had for a long time tried to make us realise that in fact ‘We do not have many colours; only three: susungu (‘white/light’), ‘ungi (‘black/dark’), and unga (‘red’). And that’s all!’ The Bellonese themselves classify these three terms as ‘the big names for colours’ (te hu’aiingoa o na kala), ‘the mothers of colours’ (na tinana o na kala), and ‘the base of the colours’ (te tungi o na kala). In fact our informants were able to subdivide our colour chart into these three categories. However, they also said that these categories could be subdivided into smaller sections; in the subdivision, however, our informants showed considerable variation in their use of terms.

Needless to say the apparent ‘simplicity’ has nothing to do with the ability of the Bellonese to perceive differences in colours. During our studies Rolf Kuschel tested forty-eight Bellonese for colour blindness by means of both the Ishihara-Colour-Test and the H-R-R-O-colour test, but not one single case of colour blindness was found.

One variation in the use of basic colour terms occurred. Our informants were in disagreement among themselves as to whether there were actually three or two basic colour terms. Some preferred to exclude the word susungu (‘white/light’) claiming that it was merely the ‘removal from the two others’.

Although susungu is today the common word for ‘white’ and ‘light’, the Bellonese also use the word tea, claiming that it is identical in meaning with susungu. Some seem to feel that tea has the connotation of extreme whiteness. Interestingly enough some informants had a vague feeling that tea belongs to the group of risqué words which cannot be used in the presence of one’s sibling of the opposite sex or among in-laws of the same sex. This may perhaps be due to the fact that people associate tea with the word mea (‘reddish’, as genitals). In any case tea was earlier closely connected with rituals and poetry. One would never use the word susungu in a song or a ritual formula. Since the word tea is on its way out of
daily speech and since informants frequently use the word *susungu* instead, we shall hereafter refer to the basic colour term as being *susungu*.

For convenience we have translated the three basic colour terms by the glosses 'black/dark', 'red', and 'white/light'. However we realise that no English glosses may cover Bellonese concepts in an adequate way.

We found the three basic colour terms in the Bellonese classification of the human races. Polynesians are *unga*, Melanesians and Africans are *ungi* whereas Euro-Americans and Asians are classified as being *susungu*.

*Unga* are such things as: ripe bananas, flesh of papaya, clouds at sunrise and sunset, fire, barkcloth dyed with turmeric, turmeric, ripe coconuts, certain types of soil. *Susungu* are such things as: newly plaited mats, the white of eyes, bones of humans and animals, teeth, the moon, the sand of the beach.

Our informants subdivided the colour chart as shown in table 1.

The chart shows that Bellonese use the term *ungi* for a wide range of hues, values, and chromas. Such terms as our 'blue', 'green', 'dark purple', 'dark-brown', and 'black' are by the Bellonese classified as *ungi*. With the exception mentioned below, *unga* covers the rest of the spectrum, thus comprising colours which are by us classified as 'red', 'yellow-red', 'yellow', some 'green-yellow' and 'red-purple'. The exception is the common use of the term *susungu* for colours with a fair amount of brightness. Interestingly enough a few light colours in the 'green', 'green-yellow' group are not termed *susungu*. It is our theory that this may be due to the fact that 'yellowishness' is in any case closely associated with turmeric in all its stages of production.

The table showing the three basic colour terms *susungu* ('white/light'), *ungi* ('black/dark'), and *unga* ('red') has been constructed on the basis of responses from all informants in our request for their classification of Munsell colour chips. Only those words which clearly and without qualifiers designate a basic colour term, are contained in the table. Our criterion has been to include similar responses given by a minimum of two of our twenty-five informants. The purpose of this has been to exclude possible idiosyncratic responses given by a single individual only.

*Susungu* is mainly used about those Munsell colour chips which have the highest value on the chart. Exceptions are the colour chips lying between the range of what we term 'yellow' and 'green-yellow' and also some belonging to the highest value but one.

The real *ungi* was said to be 2.5Y 2/2, 10Y 2/2, N2, and N1. Most of the informants agreed that N1 was the 'true' nucleus of *ungi*.

The real *unga* was said to be 2.5R 4/14, 5R 3/12, 2.5YR 6/16, 7.5RP 6/12, 7.5RP 5/14, 10RP 6/12, and 10RP 5/14. There was disagreement among the informants concerning the location of the centre of *unga*; but it seems that 2.5R 4/14 was preferred by the majority of respondents.

Table 1 shows that the division of the colour chart into three basic colour terms was fairly consistent. There were no instances in which chips were not grouped under one of the three basic colour terms, and there was only a fairly small amount of overlapping.

It will be obvious from this that the Bellonese language divides the spectrum in a completely different way from our language.
Table 1. The boundaries of the three hue color terms: Red-

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<th>Brightness</th>
<th>Red-Purple</th>
<th>Purple</th>
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Contextualised colour terms

In addition to the set of basic colour terms the Bellonese have a large number of words for colours and other qualities of objects. (For a more detailed discussion of the term colour as used in this connexion see p. 241).

Although similar terms seem to be very rare in English, we may point to two examples of contextualised colour terms, namely the words blond and brunette which are apparently only used to describe the colour of hair.

Below we have tried to present a set of such terms. For each term we show whether there are derived forms, give an explanation of their use and, also, for clarification, give a number of examples of their use, whenever possible. We shall also attempt to indicate the approximate equivalents of the colour on the Munsell chart. Not all contextualised colour terms have been identified on the Munsell colour chart since no actual systematic study of this type was made, and also because the informants were often unable to see any similarity between the small colour chips and colours in their natural context.

Terms classified as subterms under the basic colour term unga:

Beunga'i. No derived forms. Not known by the younger generation. Older people or people of middle age are today uncertain as to whether beunga'i is a plural form of unga (be-unga-i) describing the pleasantness of large quantities of areas being 'red' or whether it is merely an archaic term for the pleasing qualities of 'red' equivalent of the term sinusius (q.v.). Whenever used, the term is applied to objects of pre-contact origin such as mature bananas, withering leaves of yam, ripe pawpaws, and a group of burning torches.

Examples of use:
1. Beunga'i na 'ungu mamiapu. (The pawpaw plantations are beunga'i.)
2. Te 'ungu huti ku ngengeu 0 'eha, manga beunga'i te ku ngengeu. (The banana garden which is mature and plentiful is beunga'i because it is ripe.)
3. Beunga'i te kupu ngaoi o na me'a e mantanga ngaoi. (Beunga'i is a refined word for 'red' objects pleasing to the eye.)

Beunga'i was identified on the Munsell colour chart as being equivalent to 2.5R 6/12, 5R 5/14.

Ghenaghena. Derived form: gheghena which has the same meaning as ghenaghena. Restricted to the skin colour of pawpaw when completely ripe. Sometimes, but rarely, used about the colour of the sky at sunrise. A translation of the term may be the process of 'just starting to become yellow' especially about fruits and leaves.

Examples of use:
1. Na mamiapu nimaa nittel 'a e ghenaghena, kua hengohengo ake te kingi o te mamiapu. (When the pawpaws are fully grown they are ghenaghena, the skin of the pawpaw has become hengohengo.)
2. Te hakasoosoo atu 'anga o te me'a unga. (An object with a colour slightly removed from [the colour] unga.)

Identified on the Munsell colour chart as being equivalent to 7.5R 8/6, 10R 8/6, 2.5YR 8/6 and 5YR 8/6.
Gheta. Derived forms: ghetaagheta, the plural form of gheta. Only used about certain leaves of plants especially pepper vine, leaves of the tangie tree (Terminalia catappa L?) and hair of humans. If a natural process is involved such as the ripening of fruits, withering of leaves, gheta is said to be preceding the stage when an object becomes unga.

Examples of use:
1. E gheta na nga'a unga i te kaukau i tai, ma te sopuropu tou 'unga e gheta. (The hair is gheta by swimming in the sea and washing with soap, your head becomes gheta.)
2. Te ingoa a te unga 'anga o te pita. (The name of the 'redness' of the pepper vine.)

Identified on the Munsell colour chart as being equivalent to 2.5Y 8/16 and 5Y 8/14.

Ghope. No derived forms. An extremely contextualised term used only of coconuts, coconut trees, and of a kind of tuber of the yam family named abubu.

Examples of use:
1. Te ghope le hange o te susungu. (Ghope is a kind of susungu-ness.)
2. Niu ghope. (Ghope coconut tree.)

Not identified on the Munsell colour chart.

Hengohengo. Derived forms: hehengo, short form of hengohengo. This form was originally associated with the dyeing of barkcloth with turmeric, with the pale green leaves of the pepper vine, and with certain flowers of a similar hue, value, and chroma.

Examples of use:
1. Hengohengo e hu'aia'u i na ango. (The [te=] hengohengo is primarily derived from [the colour of] turmeric.)
2. Hengohengo le mi'ikupu o te unga. (Hengohengo is a subterm of unga.)
3. E hengohengo te ango o te hingi, e unga kae manga mi'unga. (The breast of the fruit dove is hengohengo, it is 'red', but only slightly.)
4. Te hengohengo e 'ui i te unga kae hano ki te 'ungi. (Hengohengo starts in the 'red' and proceeds towards the 'dark/black'.)

As said above hengohengo is one of the terms gradually being transformed into a basic colour term. One of our informants has given us a neat explanation of this process: 'When the English word "yellow" was brought here we adapted the word hengohengo which we formerly used for turmeric'.

Identified on the Munsell colour chart as being equivalent to for example 10R 7/10, 2.5YR 7/10, 5Y 7/12.

Kehu. No derived forms. On Bellona the term kehu which is found in other parts of Polynesia has only survived in connexion with a certain type of coconut: niu kehu.

Example of use:
1. Te niu kehu. (The 'reddish' coconut.)

Not identified on the Munsell colour chart.

Koka. No derived forms. Koka is primarily used to describe the process of dyeing wooden objects 'red' with the skin or the roots of the Morinda citrifolia. It is also used as an expression for the 'redness' of the skin surrounding the kernel of the tangie nut and sometimes about the 'redness' of clouds at sunrise or sunset.
When one informant was shown the skin surrounding the kernel of the *tangie* fruit and asked to name its colour he immediately said that it was *unga*. When informed what it actually was, he immediately corrected himself and classified it as being *koka*.

Examples of use:

1. *Te 'ao e unga; manga noho pe te koka.* (The cloud is ‘red’; looks like *koka*.)
2. *Ko ka'i nga 'abau kungu e koka ke unga.* (Many dyed clubs are dyed to make [them] ‘red’.)

*Unga.* No derived forms. Used about red feathers, especially of birds, such as the fruit dove (*hingi*) and the cardinal honey eater (*baghigio*.)

Example of use:

1. *Te baghigio e kunga.* (The cardinal honey eater is ‘red’.)

Identified on the Munsell colour chart as being equivalent to 10RP 4/14.

*Kunga.* No derived forms. Used about red feathers, especially of birds, such as the fruit dove (*hingi*) and the cardinal honey eater (*baghigio*.)

Example of use:

1. *Te baghigio e kunga.* (The cardinal honey eater is ‘red’.)

Not identified on the Munsell colour chart.

*Mea.* No derived forms. This term which is commonly used in other parts of Polynesia to describe ‘redness’ has for unknown reasons become a very restricted term on Bellona, only associated with what are considered vulgar objects, except when talking about ‘red’ soil (*kenge mea*) and ‘red’ yam (*Cuhi mea*). The word cannot be used in the presence of affinal kinsmen of the same sex or among classificatory brothers and sisters. It is very often used as one of the elements in invective speech.

Examples of use:

1. *Ke mea angengo.* (Put out one’s tongue.)
2. *Te usi mea!* (‘red’ cock! [penis].)
3. *Te soni mea!* (‘red’ runt!)

Identified on the Munsell colour chart as being equivalent to 7.5R 4/14 and 2.5RP 5/22.

*Memenga.* Derived forms: *mengamenga* (plural?). The term *memenga* is only used of the ‘reddening’ of certain plants such as the mature betel nut exposed to air and the young and withering leaves of a newly planted banana seedling. The leaves of the *tangie* tree are sometimes also termed *memenga*.

Examples of use:

1. *E nga’aa na nga ungu kat memenga na nga’aa kei.* (Hair is *gheta*, but leaves of trees are *memenga*.)
2. *Ko memenga te mea hakaunu’u ke unga.* (Memenga is an object beginning to turn ‘red.’)

Not identified on the Munsell colour chart.

*Mengomengo.* Derived form: *memengo* (barely visible?). To appear ‘reddish’ as from the distance.

Perhaps the term is somehow connected with the word *lakaamengo* (flower of hibiscus).

Example of use:

1. *Te nga’aa e mengomengo ke pisi.* (The sun ‘reddens’ as it is about to set.)

Not identified on the Munsell colour chart.

*Pai.* No derived forms. *Pai* is only used about the ‘red’ stain of teeth, as from chewing betel nut.
Example of use:

1. [Te pai] te unga 'anga o na niho i te kamu 'anga. ([Pai is] 'redness' of teeth from chewing betel nut.)

Not identified on the Munsell colour chart.

Sesenga. The term sesenga has no derived forms. Sesenga is perhaps contextualised in a slightly different way from that of most of the colour terms mentioned above. Although it can be used in connexion with a fairly wide variety of objects such as a barkcloth, mats, fish bones and human bones, garden fruits, and tubers it almost invariably has the connotation of something having been discoloured through an undesired process. Informants say that when objects have become sesenga they are usually about to be discarded. Examples of things having turned sesenga are: a spot on a mat on which a child has urinated (such a mat is likely to rot within a short period; furthermore the Bellonese abhor anything connected with urine). Bananas and also a number of garden tubers are characterised as sesenga if they have been burned in the fire but not roasted properly, or damaged by rain or sun and thus considered inedible. The Bellonese also say that the bones of newly killed fish or human bones are considered sesenga. This apparently has to do with a certain dislike of such objects and also because they are still somewhat reddened or darkened from blood, that is they are not properly white. Like tetenga (see below), sesenga seems to imply a colour created through a change in a certain object. However the state of being sesenga seems to signify a more irreversible state than tetenga. Sesenga also, in contrast to tetenga, concerns things becoming 'black/dark' rather than retaining its 'redness'. Statements about similarities and dissimilarities between these two terms were volunteered by our informants and not prompted by us.

Examples of use:

1. Nimaa sesenga le huaa 'umanga, sesenga, aana hano ke ngo panga. (When a garden produce is sesenga, it is sesenga, and then it will rot.)

2. Na ma'a nga'aaina e sesenga. (Objects burned by the sun are sesenga.)

3. Te luo unga; mimi kinai; 'aoina o sesenga. (A red calico urinated on; it is sesenga next day.)

On the Munsell colour chart sesenga was identified as being equivalent to numerous chips of an extremely great variety such as: 2.5R 2/8, 2R 2/8, 10R 2/6, 2.5YR 3/8, 5YR 2/4, 7.5YR 3/4, 2.5Y 3/2, 10Y 4/6, 5Y 6/10, 10GY 2/4, 2.5G 7/10, 7.5G 5/10, 5BG 8/4, 5BG 3/6, 10BG 9/2, 10BG 8/4, 5B 8/4, 2.5P 3/10, 5P 6/8, 5P 5/10, 7.5P 5/10, 10P 6/10, 7.5RP 2/8, 10RP 2/8.

Tamumu. No derived forms. Although almost obsolete now tamumu seems to have been used of colours connected with changes of the skin of the human body, usually of a pleasant character as for example of a person getting 'reddish' through exposure to the sun. Tamumu-ness was also characteristic of certain fruits such as the boighai (Mangifera sp.), uiglhosangi (Phaleria perrottetiana (Decne) Vill.), and hanga Ngotuma (Pandanus tectorius? (Solander)).

Example of use:

Te unga ho'ou 'anga i te nga'a a e unga tamumu. (The [person] newly burned by the sun is tamumu-'red'.)

Identified on the Munsell colour chart as being equivalent to: 7.5PB 6/10, 7.5PB 5/10, 7.5PB 4/12, 7.5PB 3/12, 10PB 6/8, 10PB 5/10, 10PB 4/10, 10PB 3/10, 2.5P 6/8, 2.5P 5/10, 2.5P 4/10, 2.5P 3/10, 5P 6/8, 5P 5/10, 5P 4/10, and 5P 3/10.
Tetenga. No derived forms. Tetenga signifies the ‘reddening’ of human skin under extraordinary conditions, bruises, the skin of an angry person, suffusion of blood under finger nails. The term tetenga arouses unpleasant associations. One informant explained the difference between tetenga and sesenga as follows: 'Sesenga concerns things becoming “black/dark”, tetenga concerns things becoming “red”.' Tetenga also seems to imply a colour created by a temporary change in a certain object. Examples of use:

1. Toku kunga nei ku upia o tetenga. (This place [on my body] has been wounded and has become tetenga.)
2. Te penea ika'ika e tetenga. (The angry person looks tetenga.)

Identified on the Munsell colour chart as being equivalent to: 7.5RP 8/6 and 10RP 8/6.

Togho. No derived forms. Togho is a rare form only used by persons of the older generation and especially associated with the colour of teeth of persons chewing betel. Among well-informed Bellonese, the term is associated with a ‘redness’ of aesthetic value. It is regarded as a poetic term. Examples of use:

1. E ingoa kinai na kamu 'unga na niho. (The term for the chewing of betel and the ‘reddening’ of teeth.)
2. Te ingoa o te ma'a hu'aniuga. (The name of an object being very ‘red’.)
3. Na niho na me'a hu'aniuga, hu'aniuga. ([Stained] teeth, a thing very ‘red’, very nice looking.)

Identified on the Munsell colour chart as being equivalent to: 7.5R 7/10 and 7.5R 6/12.

Toongo'i. No derived forms. Toongo'i is a term which was apparently originally associated with turmeric. It seems to have indicated a highly saturated ‘redness’, a colour which was very attractive to the Bellonese. Nowadays the term appears to have vanished and only very few informants have heard it. Perhaps plural of ongo, to rub, grate. Examples of use:

1. Poi hungu he baka'atua, hu'aiunga e unga toongo'i. (When the assistant to the priest-chief was anointed [with turmeric] he became very ‘red’, he became toongo'i-‘red’.)
2. Poi kamu he pengea o tatau tena hai, e unga toongo'i. (When a person chews betel and drools it is toongo'i-‘red’)

Identified on the Munsell colour chart as being equivalent to: 2.5R 4/14.

'Unoko. No derived forms. Two colour terms offer a good example of how difficult it is to classify Bellonese colour terms according to a rigid Western system and connect them with a colour chart. These are the terms sesenga mentioned above and 'unoko.

The term 'unoko seems to signify hues, values and chromas which may be considered off-'unga especially in an intermediate stage between 'unga and 'ungi. Informants claim that 'unoko is the same as tetenga and although it is very often used in connexion with wounds, bruises, and boils, it may—in contrast to tetenga—also be used to characterise colours of calico, and leaves of certain plants. However, informants agree that it would be impossible to ask a person to buy a piece of cloth having exactly the colour which one wanted by asking him to get a piece of calico which is 'unoko. However, once a piece of calico is seen it might be called 'unoko.
Examples of use:

1. *Toku ba'e e upia a 'unoko.* (My leg has been hit and is 'unoko.)
2. *Te toto e hana a noho nga' e unga 'unoko.* (When blood stays long [coagulates] it is 'reddish' 'unoko.)
3. *Te ngau ngutu e unga 'unoko.* (The lips are 'reddish' 'unoko.)

One informant said that the origin of the word 'unoko was its use about coagulated blood; it was later used of certain shades of unga and 'ungi.

It might be tempting to speculate whether 'unoko was originally far more contextualised than it is today, but that it has later—nobody can tell when—come to be used as a more general term for shades of colours which could neither be definitely classified as unga, nor as 'ungi. It is beyond doubt, however, that in Bellonese minds objects which are 'unoko are felt to have an offish character, which makes it difficult to classify them either as 'ungi or unga. However, it is also impossible to classify 'unoko as a basic colour term. It does not comply with our demand that its signification be included in that of any other colour term. Informants say that it is: 'A part of the 'ungi; unga which is 'ungi-ish.' They also say that 'unoko does not constitute a change from unga or 'ungi to another colour, but that it is a mixture of the two.

'Unoko was identified on the Munsell colour chart as being equivalent to numerous chips of an extremely great variety, such as: 2.5R 8/6, 2.5R 2/8, 3.5R 8/6, 7.5R 2/8, 10R 7/10, 2.5YR 7/10, 3.5YR 8/6, 7.5YR 2/4, 2.5Y 4/6, 10Y 4/6, 2.5GY 4/6, 2.5GY 3/4, 5GY 3/4, 7.5P 5/10, 7.5P 4/10, 7.5P 3/10, 2.5RP 5/12, N6.

V

Terms regarded as being subterms under the basic colour term 'ungi

**Hoho.** No derived forms. The term hoho is said to be derived from soot (pungu hoo). It is a highly contextualised term almost exclusively used of the dark colour of tattooing and about the rainy sky. Hoho is sometimes, if rarely, used in its metaphorical form such as in the last example below.

Examples of use:

1. *Te potu e hoho mai, kaa 'ua, e 'ungi kaa 'ua.* (It's darkening [there] in the distance, it's going to rain, it's 'ungi, it's going to rain.)
2. *Nimaa kai na me'a o 'ungi na ngau ngutu e hai mai: 'Ni aa, te manga hoho at tau ngutu?* (When [I] eat something and the lips turn 'black' [somebody] says [to me]: 'What is it that made your lips look hoho?')

Not identified on the Munsell colour chart.

**Kobia.** No derived forms. A highly contextualised, honorific term. Only used in praising the 'black' of the recently healed tattoo.

Example of use:

1. *Nimaa tan te tatau o balubalu o hai po e po ngua po e po ungu ma hiti ake te ni'lakua i te balubalu 'unga, e hai ake e kobia.* (When a tattoo is made and the skin peels then after two or three days the coarseness of the skin disappears through peeling, and the tattoo is said to be kobia.)

Not identified on the Munsell colour chart.
Lalangi. Derived form: langilangi, diminutive form. Lalangi is properly related to the word langi (overcast; as the sky). Lalangi has a wide range of uses, within the terms classified under 'ungi. It signifies the centre of 'darkness/blackness', i.e. something which is extremely black. Informants themselves say that it is the important word for extreme 'blackness/darkness'. It seems to have the same position under 'ungi as does the term totototo under unga: the centre of the colours. Lalangi can be used of most objects or situations which are very 'black/dark', such as the dark night, Melanesians from the Western Solomons, black tattoos, flying foxes. However, it cannot be used of hair, whales, or of fish in general.

Examples of use:
1. E lalangi te poo: hu'aaaaaipo 'ungi lalangi. (The night is very 'dark': it is a very, very 'dark' night indeed.)
2. Te nga'akau manga lalangi ai te peha. (The tree is very 'dark' from the flying foxes [hanging there].)

Not identified on the Munsell colour chart.

Segha. Derived form: seghasegha, diminutive form. Segha is a strongly contextualised colour term used only of fruits of certain trees like the ngaki (Xylosma sp.), the ubo (Syzygium cumini (L) Skals), the mangakahika (unidentified) and ngeemungi (Santiria apiculata). The term signifies the colour of the fruit just before it turns ripe and black. At this stage the fruits are still useless. The term segha is also used in describing the colour of the skin of the Melanesians from the islands of Malaita and Bugotu. The colour of these people is thought to be neither 'ungi nor unga. This statement is in apparent conflict with a previous statement by Bellonese informants that the skin colours of the human races are either 'ungi, unga or susu. So far no explanation for this is possible. Sometimes, but only rarely, the term seghasegha or segha is used of the colour of the eye balls of an angry person.

Example of use:
1. Ko ba'i hua nga'akau e 'ungi e malaa segha. (Every 'black/dark' fruit is first segha.)

Identified on the Munsell colour chart as being equivalent to: 10R 7/10, 10BG 7/6, 2.5B 8/4, 2.5B 7/6, 5B 8/4, 5B 7/6, 7.5B 8/4, 7.5B 7/6, 10B 8/4, 10B 7/8, 2.5PB 8/6, 2.5PB 7/8, 10P 3/10, 2.5RP 3/10, 7.5RP 3/10, 7.5RP 5/14.

Sinusinu. Derived forms sinu, sisinu. These forms are said to have identical meanings. Some informants use the term sisinu, which is probably only a quick pronunciation of sinusinu.

Sinusinu is a term of praise used of good-looking 'ungi objects often with a shining surface such as the ripe fruits of a well bearing ngeemungi tree; the backs of whales and dolphins; a new, solid chest tattoo (taukuka); the ocean when it is flat calm; the cloudless sky. It seems likely that the word is predominantly used of the black oily fruits of ngeemungi. From this, associations are drawn to other dark and often shiny objects as mentioned above. Something which in daily speech is characterised as 'ungi or 'usi'usi (see below), is in poetry and ritual formulas described as being sinu or sinusinu. Of all the honorific terms used on Bellona, sinusinu is by far the most predominant.

Example of use:
1. Na mi'ingeemungi manga kiina'i ake kiina o manga hai ake: 'E 'ungi!' Nimaa kiina'i ake ki na hu'ai'unga ngeemungi hua, manga hai ake: 'Te ngeemungi nei ku manga sinu!' I te me'a ngaa
ku hu’ai’eha hua ngeemungi 0 matanga ngaoi.’ (The single ngeemungi [fruits], when [we] look up at them and say: ‘It is 'ungi!’ When we look up at the large crowns of ngeemungi trees with fruits [we] say: ‘This ngeemungi tree has become sinu!’ because there are very many ngeemungi fruits and it looks good. One informant said, half jokingly: ‘Te “Ok” te o-maru e ngaoi, e sinu!’ (Our [word for] “Ok”: it is good, it is sinu!’)

For identification of sinusinu on the Munsell colour chart see table 2. ‘Usi’usi. Most informants consider the form ‘usi’ identical with ‘usi’usi in meaning. Some, however, said that ‘usi’usi conveyed the idea of plurality and accentuation (very ‘usi’).

The word ‘usi’usi is practically always used in connexion with the foliage of flora. ‘Usi’usi thus seems to specify a certain group of objects otherwise termed ‘ungi. Nevertheless the term can occasionally also be applied to the ocean, certain fish, and to the sky. Its connexion with foliage might lead to the belief that ‘usi’usi is merely the Bellonese equivalent to our term ‘green’. The fact that the word can equally well be used of a very blue sky, the ocean outside the reef and certain fish like a blush-green parrot fish, indicates that it is not identical with the colour ‘green’. Further proof of this may be found in the Bellonese classification of our colour chips as presented in table 3. Similarly informants assure us that if somebody describes a piece of calico which they have not seen elsewhere as sinusinu or ‘usi’usi one would not know whether the piece of cloth in question was ‘green’ or ‘blue’ (as identified on the colour chart).

Examples of use:
1. Na mouku e ‘usi. (The bush is ‘usi.)
2. Te tango e ‘usi ona ngau ma ona ha’ a. (The leaves and stalks of the taro are ‘usi.)
3. Te ngangi e ‘usi he’e tau ‘ao. (The cloudless sky is ‘usi.)
4. Te moana e ‘usi; manga hai ki na ‘aso mangino; te moana ngalahi. (The ocean is ‘usi, only used on calm days; the entire ocean.)

For identification of ‘usi’usi on the Munsell colour chart see table 3.

VI

The following contextualised terms are regarded as being subterms under the basic colour term susungu

Linalina. Some informants use the term lina instead of linalina; it has the same meaning. Informants, however, suggest that linalina is related to the word lina, meaning to fish with torches at the reef. The common meaning of the word linalina is to be sharp and thus white such as adzes made out of tridacna shells, and tips of arrows and spears made out of human bones. The term thus involves both sharpness and dazzling whiteness compared with its natural setting. It can also be used about an unripe pawpaw, the flesh of which is very white compared with its colour in the ripe stages. Another use of linalina is for the ‘white’ colour of widely opened eyes as in surprise. These latter uses of the term are rare.

Examples of use:
1. E ngaalongi o linalina na ohi o te ‘usI tao. (The bone tips of a bunch of spears are worked on and [thus] become linalina.)
2. Te linalina te kupu kolangianga o te susungu. (Linalina is the word [for something which is] surprisingly ‘white’.)
Identified on the Munsell colour chart as being equivalent to: 2.5R 9/2, 5R 9/2, 7.5R 9/2, 10R 9/2.

Pakisi. No derived forms. A very contextualised term. According to informants it is similar to linalina (surprisingly 'white') but only used to signify the sallowness of the skin of a very sick person.

Example of use:

1. Tamatoa ingoa ki na penga masaki, masaki, ama nima hu'aimasaki, mounate kimai kimatou: it penga mano e pasa o TB na’e manga pakisi ona kingi, ku kingi susungu. (Our word for sick people, sick and then when very sick, we wonder about the person: perhaps he has an intractable TB because his skin has become pakisi [his] skin has become susungu.)

Not identified on the Munsell colour chart.

Sina. No derived forms. Only used of the shade of greyish or white hair.

Examples of use:

1. Nguu ‘unga sina. (The grey hair.)
2. Sina susungu: manga te mea ki te sina, te sina o ‘ot. (Sina susungu: just used of grey hair, completely grey-haired.)

Not identified on the Munsell colour chart.

Sisina. Perhaps related to sina above. Sisina is only used of such fully grown but not ripe fruits as nguna (Morinda citrifolia), mamipu (Carica papaya) and of early stages of the tubers of uhingaba yam (Dioscorea sp.).

Not identified on the Munsell colour chart.

Tihatiha. No derived forms. Tihatiha is related to tiha ‘white’ coloured vertical coral cliff with no vegetation.

Tihatiha is used of large, light-coloured surfaces often standing in a vertical position, such as bleached walls of a leaf house, a pile of light leaved taro, plaited house mats.

Examples of use:

1. Te ingoa ki na mea ‘ati o ma’u’angunga o susungu, e ingoa tihatiha. (The name for objects piled up and high and susungu, they are called tihatiha.)
2. E ha’aituku ki na kungu sabisabu ama ma te tihatiha. (It is mostly used of places cut off steeply, then they are tihatiha.)

Not identified on the Munsell colour chart.

VII

The relative scarcity of basic colour terms and the rather overwhelming number of terms which are contextualised in the sense that they can only be used in connexion with a limited number of objects or phenomena leads us to the following assumptions:

1. The presence of few basic colour terms seems to point towards a lesser cultural focus upon colour as an abstract entity.
2. The existence of numerous contextualised terms seems to confirm this. These terms are tied to such specific phenomena as changes of the human body, especially changes inflicted upon it by sunshine, tattooing, skin diseases, and wounds (fighting between lineages and clans was an important part of pre-Christian Bellonese culture); changes in appearance of stages of growing plants
and their fruits; changes in the appearance and usefulness of certain objects, such as
house walls, mats, loincloths, adzes, spears, and arrows, changes in the appearance
of the sky and the light indicating the time of the day, or changes in weather. Also,
persons and objects which have changed from one stage to another, one much
admired (a person having been tattooed, the sea calming down, the ngeemungi trees
being full of fruits) are endowed with certain honorific and contextualised epithets.

3. Contextualised colour terms belong to a different level of abstraction from
that of basic colour terms. They apparently involve a more complex type of
perception including the entire set of perceived properties that define the object.
They are thus more dependent upon situations that embody them than are colour
terms in our culture. The contextualised colour terms of Bellona, however,
should not be considered similar to such terms in our culture as ruby, navy blue,
ox blood, olive green, etc. Such words are traditionally connected with certain
objects, but they are not in any way bound to be used only of the objects from which
they originate semantically.

4. Contextualised colour terms are in the great majority of cases connected
with cases in which the Bellonese emphasise change in a situation; that is, objects
which to them have acquired an unusual appearance. Thus the factor of process
seems important in connexion with these colour terms.

5. The majority of contextualised colour terms appear in that part of the
spectrum which is classified by the Bellonese as unga. Only very few objects in
nature belong to this colour category. Tentatively we might suggest that like
certain African cultures (see Woodworth 1910) which are cattle-oriented and thus
have a surprising number of expressions for redness of cattle, the Bellonese, not
living in a world of larger animals, seem to focus their attention on human beings
and on any changes concerned with the human body, which they term unga.

VIII

Qualifiers

Qualifiers, as defined earlier, are not very commonly used in connexion with
colour terms. Some of these are prefixes such as mi'i-(small/less/little) and ku'aw­
(very). The degree of qualification can be expressed by a lengthening of certain
vowels in the following way: miimii'i-(very little) and hu'aaaaai-(very much).
Examples of the use of qualifiers:

1. Na tonghihi 'ungi manga hai na pengca mi'i'ungi. (Among the 'black/dark'
strangers [Melanesians] there are some who are less 'black/dark'.)
2. Te baghu e ngibai ai le lama'iti;il, e hu'aiscnga. (The pandanus mat on which the child has
urinated is very scscnga.)
3. Te tea e singi le susungu, hu'aaaaisusungu. (Tea goes beyond the white, [it is]
veeeeery white.)

Sometimes to'a (indeed/very strong) may be used after the colour term and
signify emphasis:

Te pola mai ngango e hoho to'a i te kas 'anu. (It is very dark in the west because it is
going to rain.)

Another type of qualifier is that describing shine, reflection, transparency,
translucency, cleanness, brightness, or dullness.
'ata'ata (reflecting, shining). E unga 'ata'ata mai te ahi. (The fire shines 'red' this way.)

kemokemo (flashing). Na huaa ngeemungi, ninaa 'ua, e kemokemo sinumun, ninaa maamala, e 'ungi. (When it rains the fruits of the ngeemungi tree are flashing sinumin, when dry they are 'ungi.)

ma'a (clear, clean.)

maatlgama (illuminating, shining). Na hai e maatlgama 'usi'usi, he'e ghebu. (The waters are shining 'usi'usi, not murky.)

pughā (dull, mouldy). Te hakine hai leka'au i te pai a huksuka 'ungi. (The woman working in the kitchen house has become dull 'black/dark'.)

pughapughā, diminutive form of pughā (hazy, distant). Te pughapughā te ingoa o te me'a mamo'o, he'e maangi kinaa, he'e maatlgama maka'ai. (Pughapughā is the word for a distant thing not seen clearly, as boundaries are blurred.)

tia'a (pale, glaring, blinding). The root of this term seems to be tii (to shine or to be radiant as the moon. The pejorative suffix -a'a commonly signifies something unpleasant or annoying such as in haitlgala'a, difficult, or kaia'a, to steal. Te kitlgi o te pinga maaki e susuna tia'a. The skin of the sick person is whitish pale.)

tii (glaring, blinding.)

The terms listed above may often be used either in front of, or after a colour term depending on whether the speaker wishes to emphasise the reflection, shine or transparency of a colour, or the colour itself.

Both basic colour terms and contextualised colour terms commonly act as qualifiers themselves, usually appearing in doubles or even in triplets. A few examples will illustrate this:

1. Na tava 'angi na anga e unga tamumu. (The residue of turmeric is pleasantly 'red'.)

2. Na ngaukua e 'ungi 'usi'usi. (Leaves are 'dark' 'usi'usi)

3. Te 'in'ga o te tangata o Mungiki nei e 'ungi 'unoko. (The birthmark of people from Bellona is 'dark' 'unoko.)

4. Na kunigo he'e tahi manga hiali i i te bai o te anga o hengohengo susungu. (Loincloth not dyed, just washed in the water of turmeric, and it is 'light' hengohengo.)

At present no examples of triplets in sentences are available. Informants, however, state that such combinations as 'ungi unga sesenga or hengohengo 'ungi pughā are grammatically correct. However, such combinations as *'ungi sinuminu 'usi'usi or *'ungi unga 'unoko are impossible.

It is our impression that in working with stimulus material especially our older informants tended to use combinations of basic colour terms and classifiers to a much higher degree than did people of the younger generation. At the same time we feel that the considerable number of combined colour terms which resulted from our use of an artificial stimulus material was not comparable with the actual daily use of such terms; but perhaps prompted by the Bellonese feeling that the mere fact that the authors worked with highly sophisticated sets of colour chips made the informants believe that they were expected to have a number of different colour terms corresponding to that of the number of chips.

The quality of objects having 'colours' can also be described with such terms as songopanga (solid), tebatbaba (transparent), pebapeba (translucent), maatoa (striped), tutututua (dotted, with smaller dots usually of same colour or shade of colour), pungepunge (spotted, dotted, but multi-coloured), hakasteo (with broad stripes).
Colour terms in transition

We have stated above that the basic colour terms are productive, in the sense that new and hitherto unknown objects can be classified as having one of these colours. Among new introductions in Bellonese culture such objects as calico, flowers, crockery, plastic objects, pencils, or paper can be either 'ungi, unga or susungu. However, the recent contact with foreign culture seems to have increased the need for additional basic colour terms in the language. We find that a number of terms which have previously been associated only with certain objects are now being used by some people as colour terms in their own right. These terms are 'usi'usi and hengohengo.

The word 'usi'usi was previously restricted to describing vegetation and to the ocean. This term is, according to Bellonese informants, considered a sub-division of the basic colour term 'ungi. Whereas previously no semantic distinction was made between blue and green there is now a tendency among people of the younger generation to associate the term 'usi'usi with objects which in our culture are called blue.

In former times the word hengohengo was associated with the colour of turmeric gratings and objects stained or dyed with turmeric as well as with the colour of the pita plant (piper) used in connexion with the 'chewing' of betel nuts. Members of the younger generation state that the term hengohengo is now being used by some people as a basic colour term, covering that part of the spectrum which in our language is referred to as 'yellow'.

The ongoing changes in the use of the terms sinusinu and 'usi'usi are shown in tables 2 and 3. Among older informants the two terms not only overlap but are also to be found within the range of what are classified as 'ungi colours. This confirms the previous assumption that sinusinu is a term of praise for specific objects which are in ordinary speech classified as 'usi'usi. Still, 'usi'usi is not a basic colour term, as we have shown in our presentation of contextualised colour terms above.

Among people of the younger generation the situation is different (see table 4). It will be obvious that the new generations separate 'usi'usi and sinusinu into two different groups; sinusinu roughly covers what we in our culture call 'green', whereas 'usi'usi denotes what we term 'blue'.

As for the terms hengohengo and sesenga we have found that the use of these is still vague among members of the younger generation. It seems, however, that there is a tendency for these two words to be used as basic colour terms, covering purple and/or brown (sesenga) and 'yellow' (hengohengo).

As for the remaining contextualised terms their infrequent use in connexion with informants' classification of colour chips seems to present further proof that they are relative and vague in the sense that a term may for example designate the red stain of teeth from betel-chewing, although the exact colour of the teeth may vary among different betel-chewers.
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Table 2: The Table of Spectral

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Table 3. The range of hue, int.
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- The table shows the intensity of the colors in the spectrum.
The occurrence of colour terms in non-experimental situations

Of the many publications concerning colour classifications in different cultures, only very few, such as for instance Ray (1952) and Conklin (1955) have concerned themselves with other aspects of colour classification than that which can be elicited through more or less rigid experimental research contrived by members of our culture.

Most authors seem to have ignored the role of colours and colour terms in the daily lives of the peoples under study. It is likely that this has resulted in a rather artificial and thus perhaps incomplete picture of the world of colours in certain foreign societies.

Although in this article we have focused upon Bellonese colour terms and thus given a picture of a certain richness within this aspect of their culture, we are still convinced that colours play a fairly minor role in the daily life of the Bellonese. Some observations may confirm this: In the numerous myths and stories collected by Samuel H. Elbert and the present authors (in total not less than 400) the number of instances of colour terms appearing is very few.

During several years of fieldwork among the Bellonese, the authors are still surprised when they hear the Bellonese make use of a colour term in describing phenomena in their surroundings.

Even after the introduction of European goods colour terms are still only rarely used to describe the appearance of a new item.

The authors have noticed that parents who try to explain natural phenomena such as fruits or fish, which in our mind can easily be distinguished by referring to their different colours, rarely make use of colour terms. In a study of fish names on Bellona the authors have noticed that whereas we in English very often use colour terms in describing species and varieties of fish such as Yellow-and-Blue Sea Perch, Purple-Spotted Bullseye or Brown-Banded Rock-Cod this is only infrequently the case on Bellona. During the discussions of fish names at least two informants stated that to them it did not make any difference whether the pictures of fish shown to them had colours or not. Identification seemed equally certain when using coloured or black and white pictures.

In all, we feel that the Bellonese relationship to colours can be compared with that of the average European towards, for example, ships. Whereas we have a large number of terms specifying different types of ships: frigate, gunboat, bark, barquentine, cutter, trawler,argoxy, smack, caravel, the non-specialist may only have a vague feeling of the actual significance of these terms and is usually unable to give a more exact definition of them. If we consider the aesthetic hierarchy of preferences concerning, for example, the appearance of cloth on Bellona, it is significant that the Bellonese man will first look at the pattern and only in the second place concern himself with its colour. Similarly, women are primarily concerned with the pattern (they usually prefer small patterned cloth) but they are just as uninterested in its actual colour as are men.

Moreover colours are neither directly nor indirectly associated with a narrow field of emotional expressions such as is the case in our culture. Attractions between the sexes, sorrow or mourning, joy or distress are not at all connected with
colour symbols. Affection between the sexes is expressed through exchange of
 certain objects such as necklaces made out of coconut fibres, small beads or through
 poetry. Sorrow, on the other hand, is expressed by wailing, cutting one’s ear­
 lobes or forehead or destroying one’s property; not especially through the ex­
 pression or display of anything connected with colour.

While discussing dreams with the informants, it appeared that it is not unusual
 for them to have dreams in colour. However, they also claim that dreams might
 just as well ‘be black and white’. It is impossible for them to specify the exact
 colours appearing in dreams and apparently they are not very interested in this
 problem at all.

One informant, who has lived abroad and worked with anthropologists for a
 considerable amount of time, claimed that for him emotions and colours are
 somehow connected. The following are examples of his statements:

\[
\begin{align*}
E \text{unga, } e \text{ ma’ine; } & \text{siahai; he’e maataku ai; he’e } \text{‘angoha ai; te ma’anga naa. (‘Red’ is affection;} \\
& \text{liking; not being afraid; not pitying; it is a good thing). ‘Ungi: } he’e \text{ siahai kinau, te ma’ a a maate’i, ‘ungi na maanaatu. (Black/dark: } \\
& \text{undesired, a bad thing, dark thoughts.) E mungu } & \text{ko bai’i ma’a he’e eko, e ma’a, e ngani. (Everything not to pass away is } \\
& \text{‘white/light’, is clean, is } & \text{good.) Siniminu ‘usit’i: } E \text{ a’u te mungashie te ma’ite. Na tango e ma’angi ngan. (Siniminu ‘usit ‘usit. The } \\
& \text{gratitude arrives, the affection. The } & \text{szens are thriving.) Hengohengo: na’a atu! Kae } \\
& \text{nge maate’i. Toku lase hengohengo e maase’i; e a’u, a’u ai te ma’imakia. (Yellow beware! It will } \\
& \text{be bad. My cloth has become ‘yellow’ and bad. The small mischief comes, comes.)}
\end{align*}
\]

It is impossible for us to determine whether these statements are of general
 occurrence or just idiosyncratic. Other informants seemed mildly bewildered
 when we asked them about any connexion between emotions and colours.
 Furthermore our one acculturated informant stated that what he had expressed
 about such relations was ‘the thoughts of old days, not talked about, just their
 thoughts.’

Colour terms occur sporadically in appellatives. Examples of such uses are:

\[
\begin{align*}
\text{Ungamasi (lit. the ‘red’ pudding), } & \text{Te’usinuku (lit. the ‘bluish/green’ abode of the} \\
& \text{gods), Tegheta (lit. the pleasant ‘yellow’ colour of } & \text{pita leaves), Simike (lit. the } \\
& \text{‘darkness’ resting upon appreciated objects).}
\end{align*}
\]

To a Westerner it may be obvious to ask whether the Bellonese were in fact
 ecologically deprived of means to manufacture dyes. Everything points to the
 contrary. However, they had for reasons unknown to us, chosen only to make
 dyes out of very few of the possible sources for colours. (Is this not a proof of their
 lack of interest in colours as such?). On Bellona, three pigments for dyeing were
 known: soot (maangama), which was used in darkening one’s belongings when
 approaching an enemy for peace talks. Koka: to dye red as with the root of Morinda
 citrifolia; this was done to clubs, spears and arrows. Tahi (to dye loincloths,
 turbans and certain ritual objects with the ‘reddish/yellow’ residue of grated
 turmeric). This was usually done for ritual purposes in pre-Christian days. Objects
 dyed in this way were not for profane use.

In contrast to the present when mats and baskets are plaited with black, striped
 patterns such articles were in the old days plainly monochromatic. Unlike the
 tradition in most other Polynesian societies, barkcloth on Bellona was never
 printed with patterns.
Discussion
Informants' reactions to the stimulus material

Our informants seemed to have some difficulties in working with the standardised stimulus material (Munsell colour chips). To name different chips of this kind created difficulties:

1. Informants apparently believed that we in a Western culture have names for all colours on this chart. For that reason they thought that they were expected to have a similar number of names.

2. On Bellona, colours are vaguely demarcated and most colour terms not part of the daily vocabulary. In some ways the stimulus material forced our informants to respond in a more or less artificial way.

3. This was due to the fact that the Bellonese were very conscientious in trying to fulfil a task in a way satisfactory both to themselves and to us. There is no doubt that the task of finding terms for 329 individual colour chips was to them boring and tedious work. The sessions to some informants were more or less ridicules and unimportant. Sometimes they interrupted, saying ‘that white men always play like children’. This created much laughter. However, by classifying our ‘scientific research’ in the same category as ‘children’s play’ they managed to incorporate our work into their own cognitive system. In this way they were able to continue and complete their work with the colour chips.

As for our rigid tests involving artificial stimulus material we had some rather interesting experiences which may perhaps act as a warning to other students working in the same field. During one of our sessions in which we interviewed two elderly men about Bellonese terms for the colours of the Munsell chips, great discrepancies occurred between their answers. One of them tended to use the term ‘usi’ ‘usi’ whenever possible, whereas the other responded with the word ‘sinusinu’ for the same chips. This amused the spectators. It was not until a week later that we learned the reason for the merriment of the audience. The informant who insisted upon using the term ‘usi’ ‘usi’ had once been in love with a girl by the name of Te’usi. Everybody in the audience—except the two anthropologists—knew that he, for this reason, preferred to use the word ‘usi’ or ‘usi’ ‘usi’ for chips which were termed ‘sinusinu’ by the other informant.

Another case of ambiguity occurred: when working in a joint session with two men who were brothers-in-law we initially failed to remember the fact that because they were related in this way it was impossible for them to explain freely. In-laws have very rigid rules of decorum on Bellona, thus terms which had a slightly frivolous connotation could not be explained properly, and any possible disagreements about the use of colour terms could not be expressed.

Stimulus material and methods

On page 216 we have listed the different methods used in our study of colour terminology and semantics on Bellona. On the basis of our experiences the following can be said about their possible advantages and disadvantages:
Method (1): A general discussion with informants of colour terminology without using specific stimulus material proved to be very useful as an initial stage in our research. Informants seemed to feel completely free to engage in this brainstorming concerning one aspect of their culture and language. Not only did they seem completely relaxed in their relation to the subject but they also took time to make jokes and give examples of the relation of the use of colour terms. In addition these interviews gave us our first impression that 'colours' might not be a separate and well defined conceptual unit in this culture. The disadvantages, obviously, were that this did not give us a very well defined picture of the spectral boundaries of the colour-terminology and also of the fact that a number of colour terms were both relativistic and contextualised.

Methods (2) and (3): The advantages of these methods appeared to be that they produced a number of contextualised terms which we might otherwise not have been able to discover. The main disadvantage was that our method would only produce random samples of colour terms and did not enable us to get a complete picture of the entire range of colours.

Method (4): The purpose of using this method was to avoid the possible ethnocentric concept of placing the chips systematically and in accordance with what we in our culture believe to be logical. It soon turned out that this unusual task of handling and systematising 329 different colour chips was as difficult, meaningless, and tiring to the Bellonese as it probably is to most of us. Without drawing the comparison further there seem to be certain psychological similarities between our informants' reaction to the task of grouping the many colour chips and that of the Pavlovian dogs who allegedly got very tired when they had to distinguish certain types of circles and ovals.

Method (5). In our opinion this seems to have been one of the better methods when working with colour chips. The informants did not seem to get as tired, bewildered, and bored as by the previous method. In a sense it gave us a much clearer picture of the Bellonese classification of colours than any other method used.

Method (6): This method was similar to the one used by Berlin and Kay. However, we instructed the informants to classify the chips into less rigid groups than Berlin and Kay did. Our theory was that by telling the informants to classify the colour freely and according to their own system we might acquire a system of classification which was more in accordance with their own concepts than with those of the investigators. The result, however, was a slightly 'messy' picture of terms as the informants attempted to give us detailed information on colours by way of using both basic colour terms, a few contextualised colour terms, and endless amount of qualifiers and combinations of terms. Perhaps the reason for this was that, as we have mentioned above, the Bellonese wanted to copy what they believed was the equivalent to our system of colour notation, i.e. each colour having its own individual name.

Method (7): This method was only used in a few cases. In the Bellonese context it proved to be just as difficult to work with as method (4).

Method (8): Although used late in our research this method proved to give some interesting and, in our minds, valuable results. Subdivision of the colour chart
in this way proved to be fairly easy for our informants. However, we encountered some problems similar to those found in working with methods (6) and (7).

Method (9): The basis of this method was similar to the one used under method (8), but informants were not specifically asked to classify the chart into basic colour terms. This method seemed to be useful in that it gave us a crude picture of changes in the use of colour terminology on the island. Still, the artificial stimulus material did not show to what degree people of the younger generation used colour terms in a natural context.

When working with artificial stimulus material, it was considered most useful to work with method (5). But we also found it necessary to combine the work with artificial stimulus material with very detailed interviews concerning the use of colour terms in their natural context as we have done in methods (1), (2) and (3). What we have said above naturally applies only to the culture which we have studied. We suggest that those who decide to work with the same topic in other cultures plan their research in a way which enables them to adapt their methods to the conceptual structure of the culture under study once they have obtained a preliminary insight into the outlines of the system. Although methods involving rigid and standardised stimulus materials are considered to be of great advantage by many researchers, our conclusion must nevertheless be that such methods have disadvantages when one works within a 'natural, everyday situation'. Methodologically speaking, flexibility does not necessarily mean that one should change horses in mid-stream. Each test should naturally be carried through with each individual informant, if for no other reason than to evaluate their advantages and disadvantages.

Technically it is our feeling that the Munsell chart as used by Berlin and Kay could be improved by:

1. Selecting the range of colours in stricter accordance with the individual foci of the particular culture under study (some may have a more refined differentiation of, for example, 'reds', 'browns', or perhaps 'blues' than other cultures).
2. Moreover, we feel that the size of the chips is in general too small and that the pasting of the chips close to each other and according to a Western system may result in reactions influenced by the Western concept of colours as a fluid and tidy spectral system.

Conklin's experiences suggest the advantages of developing a colour chart in which the surface qualities of the individual chips can be changed from matt, semimatt to glossy, or perhaps even wet or oily.

XII

Summary

In the previous section we have discussed our experiences concerning problems relating to the methodology in our study of the concept of colour on Bellona.

Our analysis of the data has brought us to the following conclusions:

1. As a cultural entity colours are more difficult to separate from other aspects of various cultures than is the case in Western societies.
2. The basic cognitive system on Bellona focuses on a dualistic system in which
objects are either 'red' (*unga*) or not; they are either 'dark' (*ungi*) or not. If they are neither *unga* nor *ungi* they are 'light/white' (*susungu/tea*).

3. As a third dimension in the system we have found a set of what have previously been called contextualised colour terms. From an epistemological point of view it may be doubtful whether the contextualised 'colour' terms in Bellonese belong within the range of what we in Western societies term colours. The reason for this doubt is that the majority of these terms are so closely connected with specific objects, emotions, and other cultural aspects that they can hardly be claimed to constitute a separate colour category in our sense of the word. To penetrate further into this problem we shall need an entirely different type of data collecting and an equally different way of thinking about colours. For that reason we doubt whether it is worthwhile using a Westernised system of classification in a foreign culture.

Although the Bellonese claim that all the contextualised colour terms can be categorised under the basic colour term headings we suspect that such speculations may be the result of our proddings into a cultural category which is not experienced as a separate entity by the Bellonese themselves.

4. Although our analysis seems to indicate that, as far as basic colour terms are concerned, there seems to be a tendency to experience a dualism between *unga* and *ungi* with an 'offish' stage of *susungu-ness*. As for the contextualised colour terms some of these, such as for example, *sesenga*, *setenga*, and *'u10ko* have inherent qualities of signifying processes of change from one basic category to the other. In this article we shall not attempt an analysis of how this cognitive system relates to other parts of the total system of cognition on Bellona. Although important and interesting, discussions of this problem will have to await a later analysis of Bellonese taxonomy in general.

5. In our analysis of basic Bellonese colour terms we have attempted to give as exact a translation as possible of the Bellonese world. This has shown us that if the researchers do not collect their data and analyse them in the terms of the culture under study, they may be able to make classifications almost always fit their own hypotheses. Bellonese colour terms could thus be analysed as belonging to the Berlin and Kay Stage 2, having only three colour terms. They could also be considered an extremely sophisticated system of colour notation, with innumerable 'colour words', way beyond the Western system, and thus much more sophisticated.

All in all, we have come to believe that in order to get a full and true picture of the position of 'colour' in any society we need a number of much more sophisticated methods than those used by Berlin and Kay. At the same time we feel that the two pioneers within the field of colour studies have done an admirable job in its own right. On the other hand they have shown clearly the deficiencies of working with standardised stimulus materials (as they are now) devised by Western anthropologists.

NOTES

The data presented in this study were collected on Bellona by the authors between September 1971 and August 1972. Our research was sponsored by Statens samfundsviendenska belige Forskningsværd (Danish State Foundation for Social Research) to which we convey our thanks. We also wish to express our sincere gratitude to Samuel H. Elbert, Michael Lieber, Martin Johansen and Melvin Lyon who have read the manuscript and made useful suggestions.
I See Berlin & Kay (1969). Although Berlin & Kay's book has raised some criticism (Hickerson 1971; and Hayes et al. 1972) it should not be forgotten that their book is in many ways a pioneering experimental work which points to many interesting problems in cognitive anthropology. We feel that Berlin and Kay with their strong emphasis on the compilation of data can be an inspiration for future work, and more so than articles which only deal with speculations on correlations.

2 For more details concerning the culture of Bellona, see Elbert & Monberg (1965), and Monberg (1966).

3 For a discussion of the growth stages of plants, see Christiansen, in press.

4 These data were primarily collected by Samuel H. Elbert for inclusion in a forthcoming dictionary of the language of Rennell and Bellona Islands.

5 Chips 3BG 8/6 and 7.5PB 3/14 were not available. 3BG 8/4 and 7.5PB 3/12 respectively were substituted for them.

6 Although Bellona can safely be characterised as a Polynesian society it is evident from a linguistic point of view that its language contains certain non-Polynesian elements. An example is the presence of two phonemes /gh/ and /l/ that do not correspond directly to phonemes found elsewhere in Polynesia. Words containing /gh/ and /l/ are obviously of non-Polynesian origin. However, the source of these words is still today mostly unknown. When examining especially the contextually colour terms it will be seen that a large number of them contain these non-Polynesian words: gheta, ghanaghena, segha, togho, linalina, lalangi. We shall not here discuss linguistic and cultural affinities of Bellona to other islands but merely point to the fact that the Bellonese language contains a considerable number of non-Polynesian words which in the same language have a Polynesian equivalent.

7 Woodworth (1910) entertains the same idea: 'It is further evident that the color implication of the name of an object would never be dissociated from the whole connotation of the name, if there existed no other object of similar color, to which there was frequent need to refer. A color name can scarcely develop except where there are a variety of objects of the same general color.'

REFERENCES


