Colour and Ceremony: the role of paints among the Mendi and Sulka peoples of Papua New Guinea

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COLOUR AND CEREMONY:

THE ROLE OF PAINTS AMONG THE MENDI AND SULKA PEOPLES OF PAPUA NEW GUINEA

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CHAPTER ONE
INTRODUCTION AND PROBLEM SETTING

Introduction to the Use of Paints in Papua New Guinea

In Papua New Guinea (from hereon referred to as PNG) paints have been used for thousands of years and still play a part in peopleôs lives. The earliest evidence of paint use in the region comes from the Asaro valley, Eastern Highlands, (Figure 1) at a rock painting site dated at 9290 + 140 years BP where ochre lumps were found in the cave floor, (White 1973). Traditional paints, earth ochres and organic pigments, are still used today for self decoration, artefact painting and in ritual activities.

Large areas of PNG are still covered in primary rain forest, with natural grassland in the higher altitudes. The people are principally subsistence horticulturalists, and until recently, derived most their raw materials, including their paints, from their immediate environment. There were also extensive trading networks to obtain materials not locally available, such as marine shells from the coast to the Highlands region, acquired as exchange items. Ochre paints were also traded as they were considered an important commodity. Nowadays, commercially prepared paints, as well as traditional ones, are incorporated into the palette of painters.

Among PNG peoples, paints perform several important roles which are a key part of ceremonial life. On objects, as well as enhancing beauty, paints are used to encode certain meanings, to camouflage interior structures and to transform them into something spiritually powerful. Paints, particularly red ochre, are so valued they are applied to gift exchange items, such as shells, to enhance value (Sillitoe 1979). In shield art, paint functioned to intimidate the enemy (Sillitoe 2009) and needed to be bright in order to be seen from a distance (Abramson, 1969). Shields were often re-painted before each battle to keep the colours bright (Craig 2005).

On human bodies paints act as an outer decorative layer, coating the skin, improving appearance, accentuating strength (Sillitoe 2009), and reinforcing gender roles (OôHanlon 1983). In certain ceremonies paints are used to mask the wearersô identities and transcend them into powerful spiritual beings (Corbin 1979).

Paint may be applied in monochrome blocks or arranged in polychrome style, for instance as stripes, geometric patterns or symbolic motifs forming a system of semiotics relating to peopleôs spiritual beliefs. Certain designs might be intended as ancestor figures, animal shapes or plant parts, while others are merely abstract forms (Beran and Craig 2005).

As the outermost layer of ceremonial artefacts, paint is often the only material visible and becomes the primary medium of communication between the object and its viewers; it is used to relay messages to prescribed audiences (OôHanlon 1989) - humans and spirits. On ritual items, such as magic stones, paints are the link between the living and their dead ancestors. Mendi people believed that spirits were captivated by the bright colours, which were used to appease or distract them (Mawe 1985).

Paints are used in many PNG healing rituals and sorcery processes, not just as colorants for other objects, but as objects in their own right. Forge (1962) found that among the Abelam óalmost all magic involves some form of coloured mineral substance that is classified as paintô (Forge 1962:16). Mendi and Sulka men often carry lumps ochre wrapped up in small bags, which combined with special incantations, can be used help the owner succeed in courtship, health and wealth (Hill 1986) and to protect against sexual pollution and disease (Sillitoe and Sillitoe 2009).

Background

My initial research interests were to further the conservation of PNG artifacts, to identify paint materials and document painting techniques. However, after only a few weeks into the research, I became aware that paints contribute to a much wider range of social activities than just decorating objects. During a long career as conservator of ethnographic materials, particularly while working at the National Museum of PNG, my awareness had been drawn to the problem of paint degradation. Traditional paint from PNG is transient in nature, undergoing serious deterioration problems, such as abrasion, flaking, and fading, sometimes leading to total loss leaving a bear substrate. Lost with the colour work is crucial information that could lead to a fuller explanation of the artefact and the culture that made and used it.

Where painted artefacts are preserved in a museum and are no longer part of a living tradition, they represent only a microcosm of a peopleôs material culture; supporting information is required to help interpret them. For the caretakers of artefacts from rapidly changing cultures, a key concern is the physical preservation of objects no longer made and the gathering of information to support their understanding. Knowledge of the material constituents and painting techniques can enhance the overall understanding of an object, as well as leading to better museum preservation methods in the future.

My initial literary survey lead me to works by Strathern and Strathern (1971) and OôHanlon (1992) who discussed the role of paints in self decoration. Other researchers characterise the use of paint in on exchange pigs (Sillitoe 2009, Rappaport 1984), for male initiation (Barth 1975) and in sorcery (Forge 1962). These are forms of painting which never enter a museum collection as objects and therefore do not relate to artefact

conservation. Therefore no full study of paints should exclude these many other important painting activities.

The realization that I was engaging with a research topic vaster than anticipated, not longer limited to painted artefacts, led me to expand on my original premise. Thus my field research (for the Sulka area) was timed coincide with two major ceremonies at which I could view items not only in the act being painted, but being used in a real context. Unfortunately this was not the case for the Mendi area; my research here was backed up by the existing studies of Lederman (1986) Ryan, (1961) and Sillitoe (1979, 1988). In order to enhance knowledge on material culture, I also continued with my original aim to establish which materials were used traditionally to make the different colours and how they were made.

Focus of the Research

The focus of my enquiry has two branches ï one, to determine the material aspects, of paint and whether this influences colour selection or use, and two, to evaluate the ceremonial role of paint, by looking into the contexts for which they were used. A general survey of several language groups across PNG would be too large and too wide-ranging a project for an MA thesis, so I narrowed down my field research to two locations which were environmentally distinct, and where European contact was minimal, selecting the south coast of East New Britain, and the Mendi Valley, Southern Highlands. This was to maximise the information relating to the sources and physical aspects of the raw materials, and to identify to which geographical factors (maritime versus high altitude interior) might influence the results.

Working with two groups exhibiting cultural differences, one from each of region, would give scope to examine the different social and ritual aspects of paint use. I chose for my cross-cultural study: the Sulka of East New Britain and the Mendi of the Southern Highlands. These two peoples exhibit a different approach to colour use: the Mendi use predominantly mineral pigments and direct their artistic skills to body painting, while the Sulka utilise mainly plant dyes and concentrate on decorating objects. Furthermore, they also use a different colour code. Their ceremonial life has different foci - the Mendi centre their social activities around exchange, while the Sulka embrace the masking tradition, with the incumbent male initiations and taboos.

Forge states that ómong the Abelam all art is basically cult art and can only be displayed in the context of the ceremonies of the *tambaran* cultô(Forge 2006:111). While this is to some extent true of the Sulka, it cannot be applied to the Mendi, for whom painting is very much bound into exchange rituals. In PNG paint is not only used for artistic

purposes, so to study only artifacts regarded as high art, would be to ignore a large portion of the social and ritual proceedings for which paint is used.

I also wanted to investigate the use of paint in magic and cult rituals where aesthetic notions may not apply, or where paint may have a dual function. On arrows red paint it seen as attractive but also magic ï it serves to drive the point to its target (Bush 1976), while on magic *kepel* stones it scares or lures ghosts (Mawe, 1985). Forge also emphasises this magical aspect of paints, that they are considered so powerful that precautions are taken prior to their use (Forge 1962).

Paint use in PNG always seems to merit a ceremonial or ritual context; rarely does it simply have a utilitarian function, such as for waterproofing or protecting a surface from abrasion. Utilitarian artefacts, such as rain hoods and digging sticks or are not painted, though artifacts associated with narcotics, such as tobacco smoking and betelnut chewing, are. The use of paints in body or face decoration is restricted to formal occasions and that different colours or colour combinations merit use at different occasions, examples being white clay for Highland womenôs funeral attire and black charcoal for marriages (Strathern and Strathern 1971; Sillitoe and Sillitoe 2009).

In my research among the Mendi and Sulka I consider what aspects of paint are valued (whether the raw ingredients, the finished product or the colours) and also whether the painting act itself is regarded in some way as a spiritual act, as Forge found among the Abelam (1962).

Preliminary Fieldwork

During the period 1981 ï 1984 the National Museum sponsored several collecting trips, in which I took part, to different regions of PNG. They resulted in collections of artefacts, raw materials used in their manufacture, data on techniques, and photographs relating to artefact manufacture. The research findings were documented in a series of National Museum monographs (Bafamatuk and Hill 1981; Craig 1982; Isaac and Hill 1983; Hill, 1982). Data on paint usage formed only a part of the overall documentation.

During the six years I lived and worked in PNG, I also carried out short field research projects in the following areas: Eastern Highlands Province with the Gahuku and South Fore peoples; East Sepik Province at Maprik; New Ireland at Panemecho; Madang Province at Bilbil; Manus Province on Ponam Island and in Buyang; and in East New Britain with the Tolai, Baining and Mengen peoples.

Documenting and Photographing Sulka and Mendi Artefacts in Museum Collections

A preliminary stage of the research involved studying Mendi and Sulka artifacts in museum collections, with the aim of taking photographing key objects and using these photographs in the field to prompt discussion about ceremonies, colour use, and designs. In the months preceding my field work I visited several museums in Germany, France, Switzerland, United Kingdom, Australia and Papua New Guinea, which held collections of Sulka and Mendi regions. I accessed the accompanying accession documentation, making notes about relevant objects and their collectors, noting use and design interpretations, where recorded.

The museum archives particularly valuable to this research were the Gregory Bateson collection of Sulka artifacts at the Museum of Archaeology and Anthropology, University of Cambridge, collected in 1929, and the Mendi material at the South Australian Museum, collected by Crawford and Pretty in 1978. The Sulka information was supplemented by George Corbinôs photographs and photocopies of Batesonôs field notes, from the archives of the American Museum of Natural History, New York (Corbin, 1980).

Research Problem

My research focus prompts one main question: ôhow do paints contribute to the ceremonial aspects of Sulka and Mendi cultures?ô It will be explored through the following topics and related questions.

Colour Classification, Colour preference, Colour Symbolism

Bowden (1983) refers to four pure colour terms used by the Kwoma (black, white, red, yellow) which are synonymous with the colours of the paints they use. Among the Mendi and Sulka, do all the different colours used as paints have a pure colour term to describe them? The Mendi and Sulka also use only four main colours in their designs, both use the red-white-black triad, with yellow for the Mendi and green for the Sulka, as the fourth colours. Does this relate to which pigments are naturally available or does is there a preference for green.

Within this limited palette is there a colour preference ? Can one colour be substituted by another? Does the way in which individual colours used suggest a symbolic meaning? In the anthropological literature on PNG there are colour associations made, for example, ôred is clearly an idiom with descent and the ancestors, black indicates male solidarity and seniority and white stands for food,

prosperity and plentyô (Barth 1975:172). While Strathern and Strathern (1971:158-9) talk of red attracting valuables, and in being associated with both male and female attractiveness and fertility. Sillitoe (1979:143) suggests that colours have many meanings, depending on the context, that colours use is polysemous.

Colour Arrangements and Designs

Much attention has been given to interpreting designs (Beran and Craig, 2005) on artefacts in PNG, particularly in shield art. In Sulka and Mendi polychromy do the design elements carry meaning, and how does it relate to the object being decorated? Does one colour feature more or occupy more space on the substrate?

Significance of the material components (the pigments and the paint media)

Are the material constituents an integral part of the overall potency of the paint, or just the colour? If red ochre is substituted with commercially prepared paint, does it still have the same associations, e.g. in possessing powers that protect against harmful spirits?

The Sulka use a species *Coleus* to make red paint for masks; it is considered a sacred plant and great secrecy surrounds it (Hill, 1986). Do the non-coloured ingredients have ritual associations as well as the coloured ones?

Availability of the source materials

Working on the presupposition that the Mendi used predominantly earth ochres and the Sulka, plant dyes, I wanted to find out why this was so. Does it relate to what is available in nature or to the ultimate use the paint was put?

Painting techniques and accompanying rituals

In what ways does the act of painting itself form part of a ritual? Are the colours be-spelled prior to use? Do the painters take precautions to avoid being affected by the potency of the paint? What are the substrates ï do they have a ceremonial or utilitarian use? If ceremonial, e.g. masks, what does the ceremony involve?

Paints in magic and physical protection

To what extent are paints used in ritual healing or protective magic to enhance an individualôs, or groupsô well being. Do they play a role in animal husbandry or horticulture?

Gender Taboos

Would there be gender taboos associated with painting rituals? Do the Sulka and Mendi men and women have the same knowledge of paints on ceremonial artefacts? Do they use different recipes and methods?

Methodology and Data Collection

The information presented in this thesis is the result of original field research carried out in 1982, 1983 and 1986 with the Sulka and 1986 with the Mendi.

Participant Observation

Much of my work among the Sulka and Mendi used the participant observation approach to acquire knowledge. This involved living among the people, observing and taking part in daily activities such as gardening, cooking, and fishing, as well as in the preparations for important ceremonies. I had the opportunity to be present at four key Sulka ceremonies ï a bridewealth exchange, a funeral, a mortuary ceremony and the Ordination of a Catholic priest. Similar opportunities did not present themselves in the Mendi area.

The time spent with each group was of insufficient duration to learn either of the native languages in any depth, however being fluent in Pidgin enabled me to communicate with most of the key informants at each location. Where an elderly informant was not conversant in Pidgin, a translator was hired for the particular interview. I learned the Sulka and Mendi terminology for the colours, the dye and mordant yielding plants, the artefact names and their component parts, and the names of the ceremonies at which they were used.

My total time spent with the Sulka was considerably more than that spent with the Mendi, so to make up for this inadequacy, I have drawn from the work of other researchers in the Mendi area to support my own data, namely: Lederman, 1986; Mawe 1985; Pretty1969; Ryan 1958, 1961, and Sillitoe, 1979, 1988, 2003, 2009, 2010.

Organising the Research Contacts

In both research areas, contacts with the villagers and accommodation arrangements were made through National Museum colleagues, namely Chris Isaac (Sulka) and Theodore Mawe (Mendi), who knew the best people to act as research consultants. The consultants or informants were men of high social standing in the community with the right kind of traditional knowledge to be able to work with me. My key person in the Mendi area, was Paki Ya, based at Sol, near Bela, and in the

Sulka area: Paul Anis from Kilalum village and Gabriel Langmark, from Guma village. Once in the field other knowledgable people came forward offering information.

Research Interviews

Much of my research was carried out through the formal interview technique, in a question and answer sequence (using Pidgin), with the key consultants previously identified. Interviews with male informants were generally conducted their place of residence during the day when women and children were out in the gardens. Older women with traditional knowledge also acted as consultants, being very informative on aspects of paint usage in medicine and pig magic. It became practical to talk to them in the evenings, after their work was done.

All interview questions and answers were transcribed into a field note book. Where possible, and only when consultants agreed, conversations were recorded on to cassette tapes. This was particularly useful for documenting the songs or stories told in Sulka, which would require later translation by Chris Isaac at the National Museum. In addition,

Investigating Colour Terminology

The linguistic aspect of my colour investigation was not very sophisticated and there is clearly scope for much more research in this discipline area. Using the collection of paint samples informants had prepared for me, I measured their Munsell colour values, then noted down the colour terms given used for each of the main hues, i.e. black, red, white, yellow, and green. Where paints of a certain colour could not be reproduced, I asked informants to name the colours in colour-photos of painted objects.

Ethnobotanical Methods

My research methods used to document the use of plants in making paints were in accordance to accepted approaches to the study of traditional botanical knowledge (Cotton, 1996). I held structured interviews using questionnaires to elicit information on dye and mordant producing plants and ascertain the traditional terminology. However, detailed analysis of traditional botanical classification systems was beyond the remit of this study.

Having completed a list of plant names, a fertile specimen of each was then located *in vivo* for subsequent taxonomic identification and for lodging in the University of PNGôs Herbarium.

Material Culture Methods: Using Photographs to Steer Oral Testimonies

Part of my research involved using the photographs of Sulka and Mendi artefacts (from museum collections), to stimulate consultantsô memories about their material culture. This method, sometimes termed ósalvage ethnographyô has been much used in the past by museum ethnographers on artefact collecting trips, or to assist the reproduction of vanished crafts: e.g. Pretty (1969) with the Mendi; Corbin (1983, 1990) with the Sulka and Crawford (1981) with the Gogodala.

The colour photos were divided into groups according to function i.e. images of shields, masks and body ornaments, and also according to gender and general interest. I then worked with the targeted audiences in private locations, directing questions about colour application, and ritual and ceremonial use.

In each of the research areas, this method of data collection proved very successful, eliciting lengthy sequences of oral testimony. In the case of the Sulka artifacts, some (war-shields and weapons) had not been made since before WWII, but some of the older men (in their late 60s) remembered their fathers making and using them so could provide information regarding material components. I also used this approach to instigate re-enactments of dye technology and painting methods.

Collecting and Storing the Raw Materials

Once I had obtained the above information, a major task was to collect samples of the raw materials, which were required for both the demonstrations of paint preparation carried out in the field, as well as subsequent analysis. Working with older informants of sound traditional knowledge, lists of the source materials were made for every paint colour, using local names. Discussing each colour separately, helped channel information into convenient blocks, enabling evaluation of colour terminology and symbolism.

Botanical specimens were the most difficult to collect, partly because of their distant location in the primary forest, but also because the most knowledgable men were generally old and frail, so could not walk far. Young men with stamina were generally unfamiliar with the plants. Collecting teams therefore had to consist of one or two middle-aged men with good botanical knowledge and three of four younger assistants capable of climbing trees or using catapults, in order to obtain specimens from the high canopy. Plants growing close to the villages in gardens or secondary forest were recognisable to most people so posed no problem.

The flat botanical specimens collected for taxonomic purposes were dried in special plant presses, to facilitate storage and transit out of the field. Larger, fleshy parts such as flowers and fruits were stored in well-sealed sample bottles containing ethanol.

Collection mineral paints samples also required detailed traditional knowledge from older people familiar with paint recipes. In the Mendi area this proved relatively easy as ochre sources were well known and still used frequently. In Sulka territory, mineral pigments took longer to find as they are scarcer, and again there was the problem that older, more knowledgable men did not want to walk far.

Documenting the Paint Preparation

Using the raw materials collected, I instigated a staged demonstration of paint preparation for every colour, photographing and documenting the process. Where their manufacture was not physically enacted, details of it were described to me. This enabled me to ascertain the following: who carried out painting activities, what substrates were coluored, what equipment was used and whether the act of painting was accompanied by ritual activities such as magic words or songs.

Some of this work was also achieved by being present during real-time preparations for major festivals; this provided additional information on body paints and apparel. Advance warning was given to the Sulka people that I would like to observe certain artefacts being painted, which would be partially manufactured prior to my arrival. This was not done in the Mendi area as my contacts there were not known in advance.

Analysing the Composition of the Raw Materials

The botanical taxonomic identifications and chemical analyses were carried out in Port Moresby and Brisbane, subsequent to my leaving the field, as this part of the research required assistance from specialists using complex scientific equipment.

After the fieldwork concluded, the dried plant specimens were taken to the University of Papua New Guinea (UPNG) Herbarium and the Queensland Herbarium, Brisbane, where Dr David Frodin and Dr Gordon Gymer, respectively carried out the taxonomic determinations. The voucher specimens were lodged with the University of Papua New Guinea Herbarium, with some duplicates in the Queensland Herbarium. The mineral samples were taken to the Soils Division of the Queenland branch of CSIRO (Commonwealth Scientific and Industrial Research Organisation) for analysis by X-ray Diffraction.

CHAPTER 2
LITERATURE REVIEW AND RELATED RESEARCH

Introduction

Literature on Papua New Guinea peoples is vast and diverse, from anecdotal accounts to in-depth analyses. Early explorers began describing the experience of the colonial encounter, resulting in some significant works, for example the 1871 ï 1883 diaries of Russian Miklouchо-Maclay (1975). The journals and bulletins of the Sacred Heart Mission in Rabaul: Muller, 1907; Laufer 1955; OôNeill, 1972 and reports of government officers, such as Governer Hahl (Sack and Clark 1980) are particularly useful as they carry information on demographics and general development, as well as customs at contact.

Accounts by early ethnologists such as E. W. Chinnery (1962), Alfred Buhler (1962) and Felix Speiser (1930) embellish existing knowledge by providing historic information on the peoples studied, their social structure and customs as they were then.

To date, no work devoted entirely to paints used in PNG has been written and only a few researchers working in the area of art, history or material culture have paid significant attention to the physical components of paints and dyes, namely: Craig, 1988; Crawford, 1981; Forge, 1962; Gunn, 1984; Hide, 1984; Hughes, 1977 and Sillitoe 1988. My research attempts to bridge these gaps in the existing literature - to provide both anthropological interpretations on paint usage, as well as data on material composition.

Anthropological Overview of Melanesian and Papua New Guinea

Within the discipline of anthropology, there is a wealth of literature on PNG peoples, but most relate to a particular group of people. A very comprehensive recent overview of PNG and Melanesian anthropology is ôAn Introduction to the Anthropology of Melanesiaô by Paul Sillitoe (1998). This work helped to underpin my knowledge of the social issues and expand my understanding of the concept of leaderless states, the complexities of kinship systems and of gift exchange.

Other general works on Melanesia ethnography were by Rivers (1914) who wrote two volumes on the History of Melanesian Society, with many examples of local traditinos. B. Cranstoneôs lengthy text on ôMaterial Cultureô in P. Ryanôs Encyclopaedia of Papua and New Guinea, provides useful descriptions of the artifacts and their functions, including some discussion on pigments.

Highlands Region and Central New Guinea

The Highland peoples have attracted particular attention in recent years, because their cultures and eco-systems were less contaminated by Western influence. For an overview of Highland cultures, Paul Brown (1978) gives comparative details on land-use, kinship, warfare and exchange but with few references to the Mendi.
The two main works specific to the Mendi valley area focus on gift exchange and social organisation (Ryan 1961; Lederman 1986) and helped me grasp the concept of exchange mechanisms. Ryan's unpublished Doctoral thesis (1961) and papers (1958, 1965) provided useful Mendi background material re their social structure, economic transactions and ritual traditions. Though little of Ryanôs work focused on material culture, his paper on fighting shields (1958) describes the types used, their manufacturing techniques and lists colours used and painting techniques applied. Ledermanôs (1986) detailed accounts of Mendi exchange transactions and intra-clan connections provided me with good explanations of ceremonies I was unable to see in the field. In both Ryanôs and Ledermanôs texts, the use of paints is touched on but with little detail.

Particularly valuable for my research on material culture of the Mendi was óMade In Niuginiô (Sillitoe 1988) an immensely detailed tome on the manufacturing techniques and material composition of artifacts used by the Wola people, who are linguistically related to the Mendi. For aspects of ritual activities involving paint, good coverage was given in óGrass Clearing Manô (Sillitoe and Sillitoe 2009), while óGive and Takeô (Sillitoe 1979) provided information on initiation ceremonies, conflict situations, and gift exchange mechanisms.

Theodore Mawe (1985), a Mendi prehistorian from the National Museum, carried out a short ethnographical study on his people, resulting in manuscript describing certain cults and rituals and the artifacts associated with them. A subsequent paper óReligious Cults and Ritual Practice among the Mendiô (1991) explains the interplay between the natural and supernatural worlds and the role of sorcery among the Mendi. Graham Pretty's (1978) unpublished field report on a collecting trip to the Mendi Valley, gives detailed explanations of certain Mendi artefacts with socio-cultural background, but provides little on technology.

Strathern and Strathernôs (1971) research into self-decoration among the Melpa gave me the initial bases for my own investigation, helping guide my field questions. Colour symbolism is evaluated in great depth, suggesting overt and latent associations of the different colour combinations, dark and light effects and the significance of grease.

This extensive work made me aware that paint has ritual usage as well as an aesthetic one. In a similar vein, Michael O'Hanlon (1983, 1989) writes on body painting and adornment among the Waghi, defining aesthetic associations, such as texture as well as colour. A later work (2006) discusses the changing styles in Waghi shield design, finding new ways to interpret them.

Barry Craig (1990), who studied the peoples of central New Guinea for over 40 years, found colour associations in object groupings (trophy arrays) not only of painted surfaces but of objects natural colours. Craigôs concise book óArt and Decoration in Central New Guineaô (1988) has much valuable information on paint sources and the meanings of designs used. He found that paints were highly valued and even paint containers were painted on the outside, with intricate designs.

Through much of her study of string bags among the Telefol, MacKenzie (1991) also refers to the significance of colour and to the opposing qualities of red and white. She explains that at death there is a transformation from red (of fresh blood) to white (of desiccated bones). Male initiandsô bags are filled with pig fat (ófeminine in associationô), a cucumber (óindicative of male phallic powersô) and red ochre, known as óAfekôs menstrual bloodô (1991:177).

Many of these appraisals and interpretations of colour use are obscure and contradictory, but they provided me with several ideas to evaluate in the field. Barth (1972), in his research among the Baktaman, examines colour symbolism in a wider context, especially in relation to ceremonies and secret cults, but talks less about the physical materials. He states that ó*red* is clearly an idiom with descent and the ancestors, black indicates male solidarity and seniority and white stands for food, prosperity and plentyô (Barth 1975:172). Meggitt (1968) briefly interprets the colour symbolism of the Mae Enga warrior face paint suggesting that charcoal óconceal(s) their individual identity while the red on the nose enhance(s) the ferocity of their appearanceô (Meggitt, 1968:47).

Paul Sillitoe (1979) takes up the argument of colour symbolism only briefly in his work on the Wola, óGive and Takeô, implying that there are too many contradictions for interpretations to be simple. He says ócolour among the Wola is polysemousô; they apply red paint to pearl shells to enhance their value, óin this context it is a favourable colourô. Red is also the colour of menstrual blood, óa frightening colourô (Sillitoe 1979:143). Barth also warns of the danger of over-simplifying colour interpretation, stating ówe need to check just when colour is significantô (1975:172).

Another Highland researcher, Ian Hughes (1977), explores colour preference and the significance of mineral pigments in the Highlands region and gives an account of some of the trade networks. The appendix to his monograph lists the mineral components of these sample pigments, determined through X-ray analysis (XRD), the results of which were interesting to compare with mine.

Anthropological Research in New Britain

There has been fewer anthrolpological studies carried out in New Guinea Islands region than the Highlands, perhaps because they were contacted in the late 1800s and so were regarded as too europeanised. To counterbalance this, I have surveyed some of the early ethnographic accounts on the Sulka and their neighbours written in the first half of the 20th century. The best examples were in the óHilltrupe Monoschifteô News Bulletins of the Sacred Heart Mission in Vunapope by missionaries such as: Rascher 1904, Meier (1911), Schneider (1954) and Laufer (1955).

The most significant early work on the New Britain peoples is óThirty Years in The South Seasô, written in German by Richard Parkinson in 1907, and translated into English in 1999. It contains fascinating and accurate ethnographic information on the Sulka people and many other groups in the Bismark Archipeligo. Particularly useful were the photographs and drawings of Sulka artefacts which I photocopied for use in the field. Part of Parkinsonôs collection is in the Australian Museum.

Research on the Sulka of great significance was conducted in 1928 by Gregory Bateson who spent six months with the Sulka area, resulting in extensive but, as yet unpublished, field-notes (held at the Library of Congress, Washington), which were partially transcribed by Corbin (1980). I also examined Bateson's annotated photographs (1929) and the documentation accompanying his collection of Sulka artefacts held at Cambridge University, which provided information on the materials and their usage, and with some interpretations of the designs. These gave me great insight into Sulka mythology and ritual traditions, many of which describe colour associations.

Another New Britain study of significance was by Felix Speiser in the 1930s. Anthropologist and museum curator, his field-work was conducted among the Mengen people (neighbours of the Sulka). I researched his collection of Mengen and Sulka artifacts at the Museum of Volkekunde, Basel, along with his annotated photographs and field notes, which were in German, given me other foci for analysis.

As part of an overview of interactions between the Mengen and their neighbours in New Britain, Panoff (1969) examines briefly the trading of certain pigments. Since

he includes some historical information on the Sulka, as well as details of the sources and economic value of red ochre and manganese black in the area, this work was of particular interest to me.

Among this useful comparative literature was that of Hesse (1982) who worked among the Sulkaôs other neighbours, the Baining. His main work óLife and Lore of the Bainingô details painting techniques used in mask-making. Corbin (1979, 1984) also discusses colour use, colour symbolism and the motifs on Baining masks but includes little information on the painting materials. Dark (1973, 1979), in his work with the Kilenge, Southwest New Britain, conceptualises art and discusses the influences of the designs but makes no mention of paints per say.

In the 1982 and 1983, the National Museum of PNG sponsored field research to the Sulka region, as part of a collecting trip to expand on the Museumôs East New Britain collection, resulting in field reports by Craig (1982), Hill (1982) and Corbin (1983). Corbinôs short ethnographic study of Sulka artifacts (1990) discusses the ceremonial elements of Sulka material culture, those recognised as art, offering interpretations as to their meaning. The information is well researched complementing my own work in the area.

In 1991, Craig and Isaac (1991) documented more of the Sulka masking tradition collecting masks for the National Museum and South Australian Museum. Their findings (1999) connect mask making and performance to exchange mechanisms; it provided me with yet another angle to explore.

The most extensive field study yet to be carried out among the Sulka is by Jeudy-Ballini, which was the only research among these people to result in a PhD. Her field work (between 1981 and 1985) was based in both the Sulka Reservation and in traditionally owned land in Wide bay. Her Doctoral thesis (1988), written in French, examines the role of gender in Sulka social activities and economic exchanges. Her initial work and follow-up post-doctoral field research in 1993, led to papers in English (e.g. Jeudy-Ballini, 2001, Jeudy-Ballini and Jeuillerat 2002) and an extensive volume in French (óLôArts des Exchangesô) in 2004. In these texts it was the sections on Sulka genealogy, kinship and exchange that helped me most, instructing me on some of the more difficult socio-economic issues, that I was unable to cover in the field.

Ethnographic Studies in Other Regions

I examined a portion of the countless studies on PNG material culture and art, some pertinent to a particular people, others to a general area. Papers by Anthony Forge

(1962, 1979 and 2006) were for me inspirational: his references to paint and its importance in aspects of Abelam ceremony take analysis of colour in a different direction, attributing value of the material substance and not just the colour. He finds the ochres used by the Abelam (East Sepik Province) highly potent and dangerous when used in the context of decorating bark *pangels*; paints also have the power to induce growth in taro.

For information on paint technology, I found that Crawford (1981) very instructive; he provides a comprehensive list of painting materials, including botanical ones, used by the Gogodala, and describes their preparation and application on to sculpted wood. Smidt (1990) writes a step by step account of the carving and painting techniques used in the manufacture of Kominimung figures (Madang Province), listing the materials used, including botanical identifications. Also useful were the in-depth ethnobotanical studies, such as those by Blackwood (1939), Hide (1984) and Kocher-Schmid (1991) which list dye plants specific to a particular people and a task, while Powell (1976) and Wormesley (1973) gave good general information on plant use throughout PNG.

Art and Colour Studies

To understand colour terminology I read Berlin and Kayôs classic óBasic Colour Termsô (1969) and part of later works by Kay (1975) and Kay and Berlin with Merrifield and Maffy (1997); some being available on the Word Colour Survey website. Other researchers (Bowden 1983:159) touched on colour classification, listing additional criteria distinguished by the Kwoma distinguish, such as ótoneô and óbrightnessô. Sahlins (1976) explores this more fully in relation to colour perception and the effects colours have on cultures, which helped me to interpret Mendi and Sulka colour awareness. Laytonôs óAnthropology of Artô (1991) was particularly useful, providing a long analytical section examining the literature on colour perception with several references to PNG.

Nick Thomasôs óOceanic Artô (1995) was discovered later on in my literary research, but I found it an inspiring read, giving me new lines of thought to explore. The section on the Art of War confirmed parallel findings among the Sulka, but also explored several issues new to me; until I read it I could find no information regarding the meaning of the preying mantis imagery. Had it been written before I carried out my research, I would have used additional lines of enquiry and would have had several more questions for my Mendi and Sulka research colleagues.

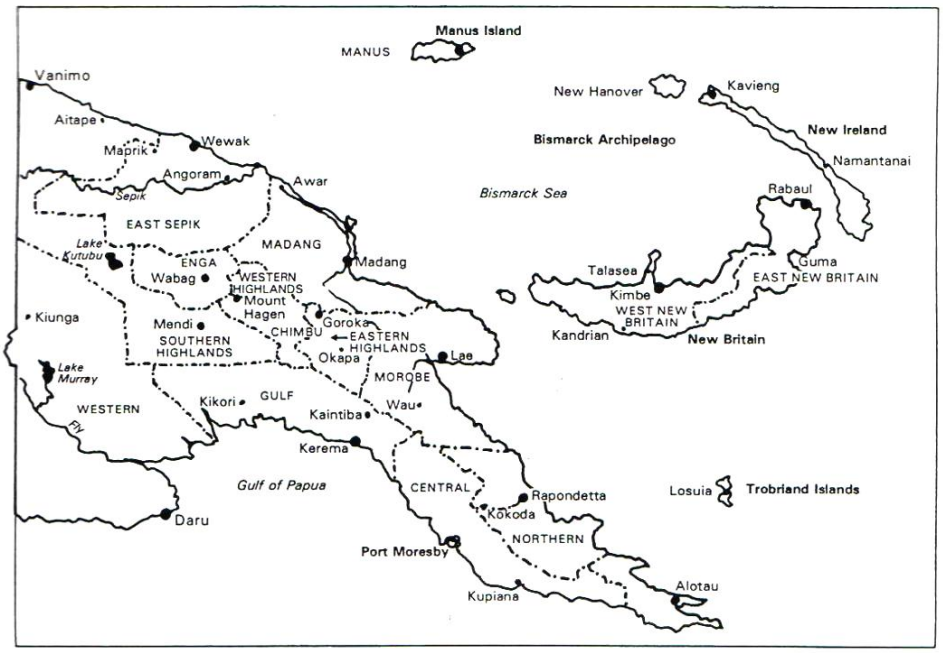
CHAPTER 3

THE PEOPLE AND THEIR ENVIRONMENT

Introduction

This chapter introduces the Mendi and Sulka peoples and briefly describes their bionetwork, how they utilise it and from which general sources their paints derive. An introduction to their social organisation discusses how they inter-relate within the group and how this links into the activity of painting. Each of the two peoples is described separately and the chapter concludes with a cross-cultural comparison.

Figure 1



Map of Papua New Guinea Showing location of Southern Highland and East New Britain

THE MENDI

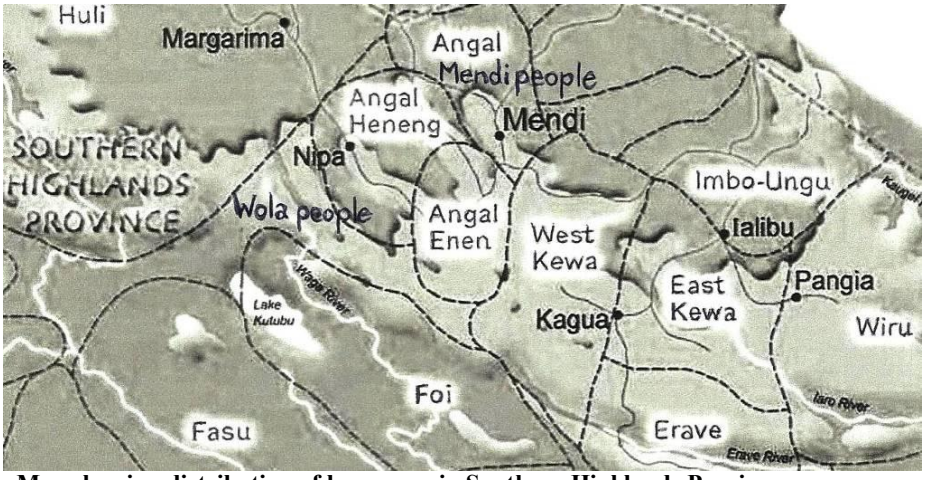
Demographics and Language

The Mendi people are generally accepted as being the inhabitants of the Mendi River (Figure 2) and its tributaries (Ryan 1954, Lederman 1986) which lie between two of the highest mountains in Papua New Guinea. They organise themselves into named groups (Pretty 1969:12) which Ryan (1955, 1961) refers to as clans and sub-clans. The Mendi language, called Angal, has been sub-divided into three dialects: East Angal, Angal Heneng and Angal Eneng (Wurm 1978). For their distribution pattern see

Figure 2. Recent population statistics give 10,000 for Angal (or east Angal) speakers, 22, 000 for Angal Enen speakers and 40,000 for Angal Heneng speakers (Grimes 2007).

The main portion of my research with Mendi people was conducted in Sol, near Bela, (Figure 3) located 14 km north of Mendi town, where they speak East Angal. The Mendi dialects are mutually-comprehensible but their speakers each regard themselves as distinct peoples; the Mendi valley and Wola peoples are one language group with slight divergences in culture (Sillitoe 1979).

Figure 2



Map showing distribution of languages in Southern Highlands Province
(adapted from: www.sil/pacific/png/maps)

Geographical Setting of the Mendi People

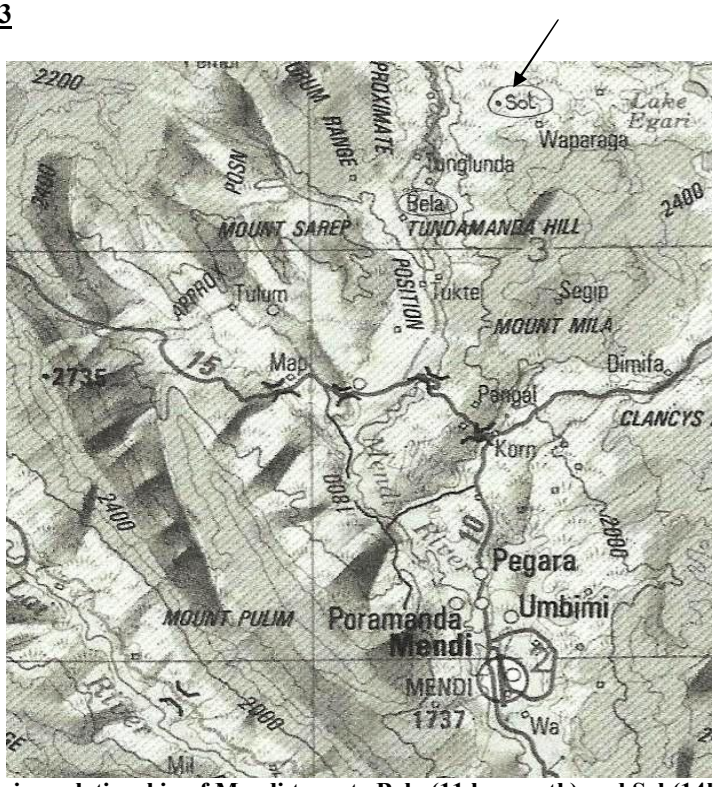
Geology, Soil Associations and Mineral pigment Sources

The terrain of the Mendi valley is extremely rugged, consisting of a series of parallel hogback ridges of uplifted limestone alternating with steep gullies, which are difficult to traverse. Caves are a common feature in the area and have been used in the recent past as cemeteries (Hill 1986) and possibly as shelters in prehistoric times (Sillitoe 2009). Outcrops of exposed white limestone which have become weathered into soft, crumbly stones are a source of white pigment for the Mendi.

Limestone soils predominate on the higher ridges but are of low fertility, supporting only subsistence cultivation (Bleeker 1983). In the valleys and gullies are pockets of humic brown clay (formed from volcanic rocks); these are fertile enough to sustain cash crops, such as coffee, on a small scale (Wood in King 1984:90). These humic topsoils sit on yellowish-brown clay, pockets of which are intensely yellow and

rich in iron oxides (Bleeker 1983). It is from these sources that the Mendi draw their yellow ochres. Red soils, rich in haematite, and a source of red ochre, are generally found at lower altitudes, below 1,500 metres but are difficult to locate, lying under dense layers of organic topsoil and vegetation (Wood 1984:90).

Figure 3



Map showing relationship of Mendi town to Bela (11 km north) and Sol (14km north)

Climate and Vegetation

The climate of the Southern Highlands region is subtropical with diurnal maximum and minimum temperatures averaging from 23.5º C to 12 ºC (Hnatiuk 1976). Annual rainfall is high (3,000-4,000 millimetres) with no definable wet season. The vegetation of the Mendi valley is sub-tropical montane forest, with grassland of *Themada* spp above the tree line at 4,000 metres (Paijmans 1976). An area of cultivated land extends from the Mendi valley floor (1,500 metres above sea level) up to about 2,800 metres, matching the distribution of sweet potato (*Ipomea batatas*), the staple food crop, which does not thrive well above this altitude.

The gathering of non-cultivated plants is still widely practised by the Mendi. Forests above the cultivated horizon and in valleys too steep for cultivation provide a wealth of herbs, leaves, fruit and wood of great nutritious or economic value (Hide 1984, Powell 1976, Sillitoe 1983).

Land Use and Cultivated Crops

The Mendi practise a system of shifting cultivation, common throughout the Highlands, with mixed cropping over a range of altitudes (Brown 1978, Sillitoe 1983). Gardens maybe used for up to three harvests before the land becomes depleted; it is then left to regenerate and new land sought. Population pressures have led to a shortening of the fallow period (5 years), creating grass fallows with soils lower in humus and nitrogen than woody fallows. Such soils contain enough nutrients to support sweet potato (*Colocasia taro*) crops enabling Highlanders to penetrate into these higher areas (Denoon and Snowden 1983).

Higher-altitude gardens also support other starchy food crops e.g.banana (*Musa spp*) and green-leafed vegetables, *aibika* (*Abelmochus manihot*) and *kumu* (*Amaranthus* spp.) The lower-altitude gardens, produce greater diversity of crops, including: peanuts (*Arachis hypogaea*), corn (*Zea mays*), *pitpit*, *Seteria palmifolia* and *Coleus* spp, the latter also being a source of blue dye for string bags and aprons (Sillitoe 1983, Hill 1986). In Bela, some of these vegetables are grown as cash crops for retail in local markets. Other cash crops include coffee and chillies, which are managed by individual families and sold to larger distributors (Denoon and Snowden 1983).

Settlement Patterns of the Mendi

The traditional Mendi settlement pattern consists of scattered farmsteads and non-permanent hamlets with people living adjacent to their gardens. Families from one group live on individually owned plots spread throughout the territory (Sillitoe 1979). Dwellings consist of a cluster of buildings, occupied by members of an extended family. Polygamy was once common among the Mendi co-wives usually living on the same plot but in different houses and working separate gardens (Ryan 1961). Today Christian values are held by many, allowing them only one wife.

Traditionally, men occupied a sleeping-house separate from women, which consisted of a communal large living room and small sleeping cubicles. Houses for women and children had to accommodate pigs, which were stalled along one of the long walls (Pretty, 1969). Today married couples and their children live together. Adjacent gardens are owned by individual men and worked by their wives and close female relatives (Sillitoe 1983).

In the past, warfare, intra-clan disputes, divorce, death of spouses have been factors influencing the migration into other clan-territories. Non-agnatic membership of

any sub-clan may have constituted up to 50 per cent (Ryan, 1961). Overuse of land in one area could also result in the dispersal of sub-clans or family groups to locate new areas of fertile soil, alongside which new houses would be constructed.

Kinship and Social Organisation of the Mendi

According to Ryan (1961) and Lederman (1986), Mendi people divide themselves into clearly defined units (clans), each dwelling on their own territory. The clans are subdivided into small sub-clan groups which are the primary economic unit in intergroup exchanges; members of which claim they can trace their descent from a common ancestor (Ryan 1961). Interestingly, among the Wola (Mendi-speakers), Sillitoe (1979) did not find such a rigorous social structure with well-defined clan groups. In the Mendi valley clans take their name from the two largest sub-clans, thus having a double name, for example Torott-Kunjott (Ryan 1961), a name derived from the founding ancestor. Within the group, however, the sub-clan members refer to themselves by the name of the most senior living member.

The Mendi descent system is patrilineal; land is normally inherited patrilineally, but Ryan (1955, 1961) has cited instances of men acquiring land from their mother's brother. Traditionally, marriage between sub-clans was forbidden only if there has been a marriage between members of the two in the previous four-five generations, (Ryan 1961) but such rules are not strongly adhered to today. Clans living adjacent to each other are more likely to be linked by inter-marriage than those further apart. Post-marital residence is mainly patrilocal, but this is not always adhered to: some men move to their bride's clan-territory (Sillitoe and Sillitoe 2009).

Sub-clan members gather together for social and ceremonial activities in a communally owned dance ground, where exchanges and *singsings* (ceremonial dances) associated with pig-feasts, bride wealth payments and funerals, take place, for which most of their painted decoration is produced. In the past, but rarely seen today, they also shared a simple spirit-house for guarding the painted magic stones which represent their ancestral spirits (Mawe 1991).

Certain clans are affiliated through economic links and allegiance in warfare; geographical location and proximity often determine allegiance. Affiliated clans adjacent to each other are referred to as clan-clusters (Ryan 1955), or tribes (Lederman 1986), may also share a common dance ground and hold ceremonies together, such as the *mok ink* (pig feast).

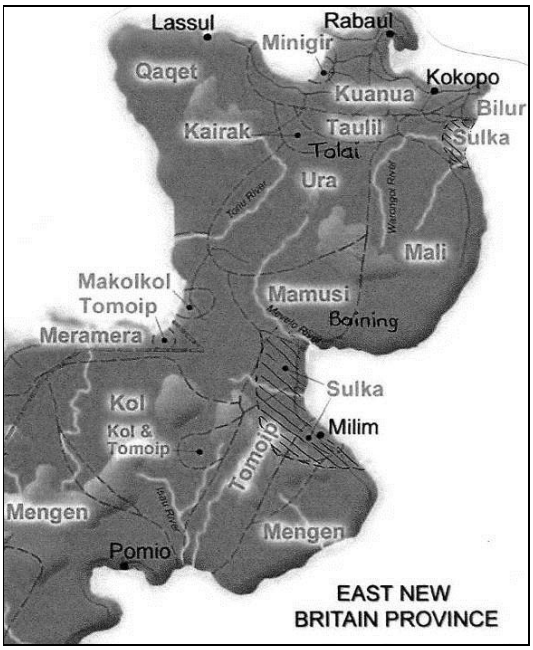
Among the Mendi, as in other Highland cultures there is no definite political structure with a head or chief as leader, a system Sillitoe describes as an ócephalous or headless stateô (Sillitoe 1998:92). Whilst Mendi men are all considered of equal rank, none assuming social control over another, it is possible for certain men to achieve high status, through economic prowess, such as the accumulation of large pig herds pigs and many pearl shells (Mawe 1985)

THE SULKA

The Sulka are a small group of non-Austronesian speakers dwelling along the coast in East New Britain (map). The term "Sulka" is a Baining term meaning "people of the white rock" (raised coral reefs), indicating their long-term association with of the coast. My research was concentrated around Guma and surrounding villages in the Wide Bay area (figure 5).

Demographics and Language of the Sulka

Figure 4



Language map for East New Britain (after: www.sil.org/pacific/png/maps)

The population of the Sulka people has been estimated as 3,000 (Panoff 1975), 1,900 (Jeudy-Bellini 1989) and 1,100 (Wurm 1978). They inhabit the coastal section of Wide Bay, East New Britain between the River Mavlo and Sampun Village towards

Cape Orford (Figures 4,5). This area is considered their traditional homeland, but a satellite Sulka homeland also exists on traditionally owned Tolai land in the Gazelle Peninsula; this is referred to as the Sulka Reservation. This separation was due to population pressures and extended warfare with neighbouring Baining people in the 1890s, leading several Sulka migrants to search for new land. Eventually Tolai land near the Warangai River was allocated to them by the German administration (Sack, 1980) in return for their labour on German-run copra plantations.

The Sulka language was first studied by Schneider (1946) who compiled the original Sulka dictionary. It is classified as one of the seven non-Austronesian languages remaining on the island of New Britain, but is linguistically distinct from neighbouring non-Austronesian speakers, such as the Baining and Tmoip. Their language is órelated to the languages of the Baining and to the peoples of central and southern Bougainvilleô (Isaac and Craig 1999:140).

The Sulka are also the only entirely coastal dwelling non-Austronesian speakers on the island. Austronesian speakers, such as the Mengen and Tolai, who occupy the other coastal parts of East New Britain, are recognised as much later arrivals on the island, believed to have settled there around 3,000 ï 3500 years ago (Specht pers comm 1987).

Geographical Setting of the Sulka

Geology, Soil Associations and Mineral pigments sources

The terrain of the Wide Bay area is extremely rugged, rising steeply from the coast to altitudes between 600 and 1,000 metres, with only a narrow strip of low-lying ground adjacent to the seaboard. The landform consists of a series of ridges and V-shaped valleys in the hinterland and raised coral terraces at the coast. In the Sulka part of Wide Bay, the rock formation at the coast is uplifted coralline limestone, with contemporaneous extrusions of volcanic rock, while further inland, siltstones and shales of the Mesozoic era come to the surface (Wood 1988).

In the Wide Bay area, the predominant soil types are latosols and brown soils inland, (Loffler 1981), with limestone soils (Rendzinas) near the coast, all having low fertility. Pockets of dark red soil, terra rosa, have established themselves on the older, higher parts of coral (Bleeker 1983) and provide the Sulka with small quantities an edible reddish-orange clay, high in aluminium oxide (Hill 1986). Limestone soils are typically low in clay minerals (Wood 1983) meaning a shortage of coloured clays suitable as paints.

Climate and Vegetation

The climate is hot and humid, with mean daily temperatures of 27°C and high rainfall of 3,000-4,000 millimetres distributed between two wet seasons, which provides for rapid maturation of taro, the staple crop. High rainfall also ensures continuous run-off from the higher ground in the form of rapidly flowing rivers and creeks which dissect the coastline. These provide the Sulka with drinking water, washing facilities and places for ceremonial activities.

The vegetation of the Sulka of Wide Bay is principally lower montane forest (Paijmans 1976). A band of cultivated land and secondary regrowth, 3-5 kilometres wide, separates the primary forest from the coast. The secondary forest comprises four dominant families - Euphorbiaceae, Leguminosae, Lauraceae and Moraceae (Frodin pers comm 1986). Above 600 metres where the land is either too steep to be cultivated the primary forest begins, comprising: Euphorbiaceae-dominated ecozone up to 800 metres, pure Castenopsis stands between 800 metres and 900 metres and Castenopsis mixed with Podocarpus between 900 metres and 1,000 metres (Paijmans 1976:65-89).

Many ceremonial and dye plants are found in the secondary regrowth closer to the coast, e.g. from the Rubiaceae, Guttiferae, Eurobiaceae families, or in the decorative gardens around peoplesô houses, for example *Coleus* spp.

Land Use and Cultivated Crops

The Sulka practise a system of shifting cultivation using cleared land to produce only one harvest of taro after which the soil becomes too poor for re-use. Gardens with greens and non-indigenous crops may be used more than once. The two annual wet seasons and numerous gardens per family enable the Sulka to stagger their harvests and help to ensure year-round cultivation. However, they concentrate much of their gardening activity accumulating ócerimonialô foods for feasts, such as sugar cane, taro and bananas, resulting in a shortage of nutritious foods for daily consumption (Jeudy-Bellini 1988). This is offset by purchasing vegetables at market or by supplementing with store goods such as rice, canned mackerel or fresh fish.

Secondary regrowth quickly colonises the disused gardens and after about 20 years the land may be re-used, the nitrogen-fixing leguminous plants having put back vital nitrates into the soil (Sillitoe 1983). Until this time, new gardens are developed from other areas of secondary forest. The primary forest is rarely cut down to create new gardens as its edges have been pushed further and further back, now lying too

distant from the settlements. The area of cultivated land and secondary regrowth seems to have reached a static size, perhaps limited to the distance Sulka people are prepared to walk each day too and from their gardens.

Today, much of the narrow strip of level soil close to the area is devoted to the cultivation of coconut; these small-scale plantations were started by the Catholic Mission in the 1930s (Sack 1980). Within the last 15 years, the community Government has introduced a system of mixed plantations, with cocoa trees growing in the shade of coconut trees. Some of the plantations are communally owned, while others are on the traditionally-owned land of individual clans. Labour on the commercial plantations takes up about one-third of the Sulka's gardening time.

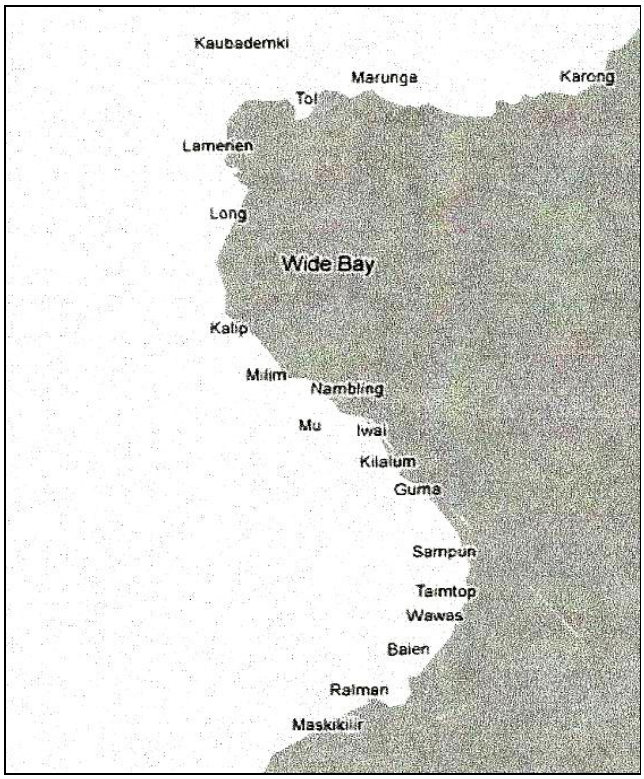
The cocoa crop has brought more money into Sulka hands and with it, the increase of private businesses in the villages, such as trade stores and speed-boat chartering companies. Much of the expendable cash among the Sulka goes into customary activities, such as bride-price payments, mourning and initiation ceremonies, the purchasing of pigs, and hiring of labour for bush clearing and gardening (Isaac and Craig 1999, Jeudy-Ballini 2001).

The amount of capital per head of Sulka population is still low compared with that in other areas of East New Britain, for example, the Tolai of the Gazelle Peninsula. This is due largely to the lower soil fertility and the poor communication system existing in Wide Bay (Wood 1988). Since relatively few ships dock there, it is difficult for the Sulka to get their harvested crops to Rabaul for sale. The rugged topography, numerous deep rivers and wet climate of the Wide Bay area have deterred the development of a proper road system, though a track cut by the district government in the 1950s to provide access to the trade the mission station is still maintained. During the wet seasons the rivers become un-traversable and the sea unnavigable, thus the Sulka area has remained relatively cut off from the rest of East New Britain, being without proper maritime links or road connections.

Settlement Patterns of the Sulka

Today in the Wide Bay area, the Sulka concentrate themselves into hamlets, sitributed along the narrow strip of low-lying land adjacent to the coast; the un-bridged rivers acting as natural boundaries between them. Houses are now arranged in lines or clusters on either side of the track. Such settlements, and gardens, were established on land belonging to the largest clan, which becomes the dominant group in terms of leadership. Members of the other clans living there can claim use of the land through affinal or cognatic ties (Jeudy-Ballini 1988).

Figure 5



Map of Wide Bay showing settlements

Dwellings were once built on cliff tops or high banks hidden behind dense vegetation, which served to protect and hide them from enemies arriving by canoe, as well as providing a natural outlook. A traditional settlement layout consisted of houses arranged in a circle around a central space of grass or earth, within which stood the men's house (Parkinson 1907). Only a few villages with this formation still exist today. The ruins of abandoned houses further inland (about 4 km from the coast) indicate that people were once much more spread out and living near their working gardens, perhaps using the dispersed ôhomesteadô pattern of the Mendi.

Kinship and Social Organisation

Sulka descent groups, *kha* (branch), are divided into two moieties, *ngaininglaut* (eagle) and *targerap* (falcon), which are mutually exogamous (Parkinson 1999:77). The Pidgin terms *Bik Pisin* (big bird) and *Smol Pisin* (small bird) are more commonly used today. The moieties then subdivide into totemic clans (Tables 1 and 2). Sexual relations and marriage between members of the same moiety are socially inacceptable, and were, in the past, punishable by death. Sulka people attribute certain physical characteristics to each moity: *smol pisin* members possess small frames, hands and feet, while *big pisin* members have large frames and coarse features (Hill 1986). This indicates a conscious

effort to avoid physical attraction between members of the same moiety. Other ways of reducing incest is marrying outside the group; inter-marriage between themselves and their neighbours (the Mengen and Tumoip peoples) is not uncommon (Parkinson 1999:78).

Members of each moiety respect their own totemic birds and avoid killing or eating them. The two moiety branches are further divided into clans, named after plants, animals, or sea creatures (Table 2). The bird totems are shared equally among the clans no one totem belonging to any particular clan (Bellini 1988). In Sulka mythology the first two clans to develop were birds, founded by two brothers, *Nut vlou and Nut sie,* and were mutually exogamous. *Nut* is shared by all the groups along the south coast of New Britain and parts of the north coast of the mainland, suggesting that in Sulka prehistory there was the super-imposition of the Austronesian belief system. In order to intermarry to the extent they did, the Sulka and Mengen would have gradually devised a system of exogamy mutually compatible with both their descent systems.

Table 1 **Showing Sulka Bird Moieties with their Totems Names**

NGAININGIAUT (BIG BIRD)		**TARGERAP (SMALL BIRD)**	
ngou	(*Ducula pistrinaria*)	**poraro'rat**	kot (crow)
ngail	(*Pseudoes fuscata*)	**kau**	(*Philamon coquereli*)
tigim	(this was given as both a clan and a totem)	**vlakas**	(cockatoo)
		nginingren	(lorikeet - *Domicella lory)*

When these groups became too large in number they subdivided again and again until there were many groups in each branch. There is no recognised chronological order of clan development that is universally acceptable to all Sulka. Knowledge of the exact number of clans in each moiety also varies; again pointing to the incorporation of a new Austroneisan-style system into a pre-exisitng one. Neither of the two Sulka moieties shares ceremonial activities, nor have they land in common ownership. Collective activities and sharing of territory and property occur both at clan level, as well as cutting across clan boundaries at the village or hamlet interface. Today, Sulka people have more social ties and loyalty with village cohabitants than with members of their own clans dwelling further away, most inhabitants being related either matrilineally or patrilineally. The presence of copra and cocoa plantations requiring labourers from the closest vicinity, who share profits, may have had an added cohesive effect on village ties.

Table 2 **Sulka Clan Names**

NGAININGIAUT (BIG BIRD)	TARGERAP (SMALL BIRD)
galmon (variety of yam)	**krindolai** (derived from a fern)
sos (variety of yam)	**palmikol** (man born of a mushroom)
kaimun (a leafy vegetable - *Aristolochia* sp.)	**tling** (generic term for fungi)
kaigen (mould)	**masera** (shellfish)
sir (fish)	**ka'ir** (type of bracket fungus)
porgan (mushroom)	**ngorul** (coral reef)
tigim (a bird; name of a river)	**luongang** (Mengen clan; type of yam)
mirkaut (after Parkinson 1907)	**letun** (type of fish - tuna)
mgulpun (Parkinson1928, Bateson 1928)	**kambuing** (a fish - Mengen clan)
wumul	**mamren** (this clan has died out; type of tree)
mongau (type of banana)	**scrip** (pig)
	malaing (shell)

(after Jeudy-Bellini 1988)

During ceremonial activities which involve several villages, Sulka people often divide themselves into groups according to village of origin, rather than clan. Activities, such as mask construction and painting, may be carried out by males from the same village, irrespective of clan affiliation. Even though one clan or family might be responsible for the performance or exchange of the masks, all nearby men will help to produce the masks. Competition at village level is strong ï cohabitants contesting to produce the best masks and dance ornaments; they will be judged accordingly on the final day of the festival. Thus preparations often involve much undercover spy-work and stealing of ideas, as villagers try to outdo each other; each village now has a football team. This has parallels with competition between enemies during warfare. Only during the actual food-distributing parts of the festivals and gift-exchange at funerals, weddings and betrothals do people unite with their clan members, sharing amongst them pork, taro, bananas, rice and canned fish. In the past, initiation ceremonies of children and young adolescents (such as nose-piercing, circumcision, or first-menstruation) would have involved members of the noviceôs clan rather than village inhabitants (Parkinson 1907; Schneider 1954).

The Sulka kinship system is matrilineal, as are many of the peoples of New Britain and New Ireland, both Papuan and Austronesian (Rivers 1914). Children inherit their mother's land, which is looked after by her brother. Traditionally, social guidance of children and regulation of their ceremonial activities were instructed by the maternal uncle, who assumed the role of father. It was through the maternal uncle that boys

learned the secrets of mask-making and painting activities. Politically, the Sulka are acephalous, power being shared between the older male initiates of each village.

Post-marital residence is normally matrilocal, couples living in the brideôs village. Men also retain gardening rights to their motherôs land, so it is not uncommon for people to work land 30 or 40 kilometres away. Today some married couples alternate their residence between the husband's village and the wife's so that neither loses gardening rights to his or her parents' land (Jeudy-Bellini, 1988). People with a lot of land often give part away to those they feel indebted to, fearing resentment or sorcery being directed at them. Sulka people once believed that evil spirits carried wealthy people away after death to a terrible place because they coveted their riches (Bateson 1928). These constant fears, together with a social obligation to be generous, have ensured the redistribution of wealth and land among the Sulka people and limited the powers of the richer families and clans.

Discussion

Both the Mendi and Sulka are speakers of non-Austronesian languages and may have descended from the earliest settlers in Papua New Guinea. Their cultures and languages have had thousands of years to develop in relative isolation, yet not without influences from neighbouring groups and through trade links. Both groups inhabit undeveloped country where poor soils and rugged terrain have prevented invasion by large-scale capitalist agricultural systems. Their lack of contact with Europeans and urbanised Papua New Guineans has kept oral and technological traditions strong in both areas. Low cash flow has necessitated continued use of traditional materials for house construction, crafts and utensils, thereby maintaining strong links with the past.

Because of these factors, knowledge of traditional material culture is still extensive among both groups. At the time I carried out my field research, many Mendi craftsmen were still using some traditional paints, as they could not always afford to buy commercially made ones. This was not exactly the situation among the Sulka, as will be discussed later.

CHAPTER 4

COLOUR PERCEPTION AND PREFERENCE

Introduction

As outlined in the introduction, the Mendi use four main colours in the decoration: - black, white, red and yellow, while the Sulka use: - black, white, red and green. In order to address the first part of the research problem colour as an ôentityõ as separate from the material (paint) is examined. Colour perception is partly conveyed in language, so a way of evaluating it is by looking at colour terminology. There are many other ways of examining colour perception, for example, the way colours are applied to objects, or by looking at classifications in ethno-science which relate to colour. This first chapter looks for inferences from linguistic studies, and compares this with other colour-perception indicators as gathered from the Mendi and Sulka.

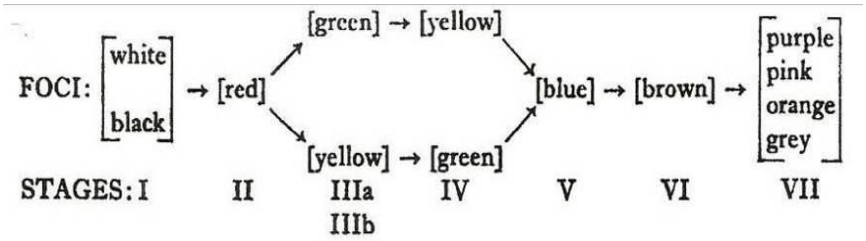
Colour Perception and language

Bowden (1983) noted that among the Kwoma people (Sepik area), only four colours are selected for their painted designs (black, white, red, yellow) and that these were exactly those which had pure colour terms in the Kwoma lexicon, showing an obvious link between linguistic terminology and colour preference. Since the paints used were all earth pigments it would be logical to conclude that the colour terms derived from the names of minerals or clays. This was not the case however; Kwoma colour words have evolved from plant sources: ôthe term for red (siikiinow) originates from the word for fruit (siik) a reference to the seeds of *Bixa orellana*õ (Bowden 1983:159), which are intensely red.

Linguistic studies have shown that each language performs the coding of experience (in this case colour) into sound in a unique manner but that there are semantic universals e.g. the order in which terms for colour evolve (Berlin and Kaye 1969). Using 329 colour chips Berlin and Kay (1969) asked their research subjects, which were initially taken from 20 different language groups, to name the colours and to identify one chip which best represented their basic colour term (Gross 2001). ôBasic colour termsõ were defined by them as words for colours that do not refer to any other item and have no other meaning. (Etymologically, these colour terms may have derived their names from other coloured objects but have since become distinct words in their own right, as in the Kwoma example.)

Using their own results and those from other researchers, Berlin and Kay (1969) analysed 110 lexicons, finding that some use as few as two colour terms, while others have as many as 11 (as in the European languages). As the number of pure colour terms increased, they observed that there was a consistent sequence of colours represented in the lexicons, forming a series (Figure 2). Languages with only two colour terms, classified at Stage I, always contain the word for black (all dark colours) and the word for white (all light colours). Where three colour terms are expressed (Stage II), the third colour is always red. Lexicons using four colour terms (Stage III) use green or yellow as the fourth colour, those with five terms (Stage IV) use both green and yellow, while those with six terms (Stage V) have blue as the sixth colour. Secondary colours arise at Stages VI and VII.

Fig 6 **Evolution of Colour Terms**



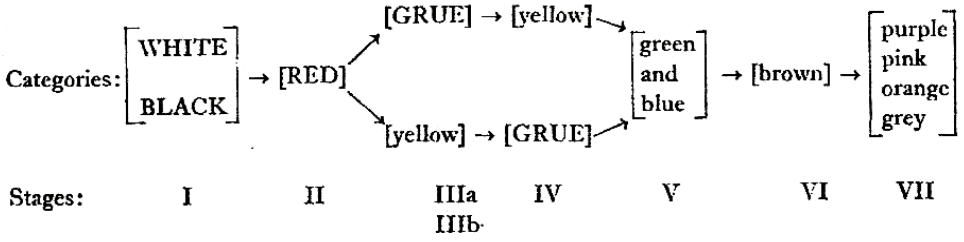
(after Kay 1975:257)

Using more anthropological data, particularly the work of E. Heider among the Dugun Dani people of Western Highlands, Berlin and Kay revised their initial interpretations (Kay 1975:258). Revisions to Stage I languages (two colour terms), infer that the ówhiteô category includes not only cover light colours irrespective of hue, but bright or warm colours such as (red, yellow, browns and purples) while óblackô stands for dark and cool colours including blue and green shades (Kay 1975).

Following research on other languages, e.g. early Japanese, which encoded blue before green, there were also revisions to the Stage III and IV classifications, proposing that the ógreenô category be called óGrueô as it included several of the hues called blue in English, especially the brighter blues. Presenting the findings as a hierarchical series relating to social complexity met with criticism (Layton 1991). Colour perception appears to be determined by our experience of the world, however, because a language lacks a colour term does not mean that the speakers do not perceive that colour (Layton 1991:156). The Egyptians of c3000 BC had no word for yellow even though they used it in their art, and even when the pigments from secondary colours began to be utilised,

from 2000-1500BC, the language did not develop terms for these hues at this stage (Layton 1991:156).

Fig 7 **Evolution of Colour terms (Stages I to VII) – Revised**



(from Kay 1975:260)

This shows that number of colour terms expressed in a language is not necessarily associated with increased complexity of painted designs, nor with technological advancement. As to why these óprimaryô colour terms, in particular red, evolve before the secondary colours (brown, grey purple, pink, orange), is still the subject of many on-going research programmes (1). Some linguists and psychologists argue that focal stimuli in the brain influence word selection (Kay and Maffi 1999). In human monochrome vision, black the most saturated colour, and white, the lightest are also perceived very intensely by receptors, called rods, in the retina (Gage 1999), with gradations of grey less so.

For colour vision, the retinal receptors (cones) are most stimulated by radiation in the red-yellow and green-blue foci of the spectrum, hence these colours are perceived more vividly than the ósecondaryô ones - brown, orange, purple and pink (Gage, 1999). In the Berlin-Kay colour term scheme, red is the first single colour to evolve a lexical term; studies among young children across several language groups have shown red to be the first hue recognised and named (Kay and Maffi 1999:10).

How Does The Colour Term Debate Relate To Mendi and Sulka?

My research with the Mendi and Sulka (both speakers of non-Austronesian languages) elicited five colour terms (black, white and red, with yellow and green or green-blue). Interestingly, I found among the Sulka and Mendi, a similar position to that with the Kwoma, that the colours with linguistic representation are those most commonly featured in decoration and painting, lending credence to the theory that these colours are perceived more intensely, and therefore favoured. In other words, an acute

optical awareness of certain colours stimulates a keen interest or preference, so these colours get encoded into verbal and visual communication systems. This is not to suggest that, among the Mendi and Sulka, secondary colours are totally ignored; they are visually discerned and are verbalised for particular contexts such as describing animals, e.g. pigs and frogs (Sillitoe 2003:73), or soil colour classification, but the encoded terms are not use in all situations.

Table 3 **Sulka and Mendi Colour terms**

ENGLISH COLOUR TERM	SULKA COLOUR TERM	SOURCE OF COLOUR SHOWN & MUNSELL VALUE		MENDI COLOUR TERM	SOURCE OF COLOUR SHOWN & MUNSELL VALUE
BLACK/DARK GREY	*sevi*	Charcoal = 0		*Pomprei*	Dark grey clay - 5Y 2.5/1. -
WHITE	*kas*	White lime powder - N10 White pigment (chalk) ï 5Y 9/2		*kaik*	White clay ï 2.5Y 8/2 Pale grey-beige clay - 5GY 7/1
RED	*svel*	Red paint on dance shield ï 7.5R 4/12 Red paint on mask ï 7.5RP 5/16		*ungi,*	Red ochre 10R 4/8
GREEN	*matom*	Photo of green paint on shield - 5G 6/6		*Karken*	Photo of bright green pigment 10GY 4/8
YELLOW	*yong*	Yellow vegetable paint on dance wand - 7.5Y 8/10		*omb*	Yellow ochre - 7.5YR 6/8
LIGHT BLUE 'TURQUOISE' BLUES	*matom*	Blue paint on mask 5B 6/8		*karken*	sample of pale blue clay 5B 7/2
MID- DARK BLUE,	*sevi,*	Blue stripe on fibre bag 2.5PB 3/6		*pomprei*	-Purplish-blue dye on manôs apron 5P 2/8 -Sample of blue pigment (vivianite) 5PB 3/4

(after Hill 1986. NB both '*tas*' and '*mok*' are used as terms for pigs)

Wola-speakers have a word for brown, *hundbiy,* a term used to describe brown pigs and soils. Among the Mendi-valley speakers, the word *komp* is used to describe grey hair on a pig (*tas komp*) and is also refers to the blue-grey clay found in river banks (*tint komb*). The grey clay has associations with pigs ï it is used to paint them when they are offered as gifts in compensation exchange ceremonies; in other situations dark greys were called ôblackô and light greys ówhiteô. Where basic colour terms exist they are usable across all contexts (compare Tables 1 and 2); black ó*pompreiô* is used to describe a black pig (*tas pomprei*), and dark-brown/black soil *suw pompray*.

In certain *timp* or *kepel* rituals, reddish-brown pigs (*tas kwen*) were used, their blood mixed with red ochre to attract ancestral ghosts; this involved the slaughtering of several pigs, ‘the most favoured pigs are red pigs’ (Mawe 1985:55), red reinforcing red.

Table 4 **Mendi and Wola Pig Colour Classification**

English terms	Mendi speakers (after Hill 1986)	Wola speakers after Sillitoe (2003:246)
Pig white	*Tas (mok) kaik*	*Haez*
Pig black	*Tas (mok) pomprei*	*bompray*
Pig Reddish-brown	*Tas (mok) kwen*	
Pig grey	*Tas (mok) komp*	*komb*
Pig brown		*hundbiy*
Pig piebald		*tindiltoba*

In this context the reddish-brown pigs are perceived as red but are not described using the Mendi word for red *ungi* which they use to describe paint. When using Pidgin, red pigs were referred to as red (*redpela)* not brown (*braunpela*). It appears then that colour perception can transcend context boundaries, but the not all colour terms can.

Figure 8 **Red and Black Pigs**

Reddish-brown pig (*tas kwen*); black pig (*tas pomprei*)
Photo credit: author

Colour Preference

Among both the Sulka and Mendi, as with many of the world’s cultures, bright colours are preferred for the purposes of decoration, especially when such decoration is required for a positive situation; ‘perhaps we (humans) like highly saturated primary colours because our photo-receptors are most highly activated by such hues’ (Miller, 2001:274).

Red in particular is favoured and used as paint by all language groups in PNG. It has been a key colour in the human aesthetic experience for tens of millennia; evidence comes from several ochre finds across Africa, believed to have been used in body decoration (Henshilwood 2009; Roberts 2009).

Figure 9 **Contemporary Highland Decorations**

Enga dancers at Mount Hagen Show, 2010. Showing prominence of red. Photo credit: B. Whitman

Particularly significant are the engraved red ochre finds from Blombos Cave, Western Cape, dated c75,000 BP, which may be the earliest pieces of iconographic art (Henshilwood 2009). Even earlier evidence of ochre use (finds of 57 pieces of worked red ochre) comes from a site at Pinnacle Point, South Africa, dated to an astounding 164,000 years BP (Roberts 2009:61), showing the huge tranche of time that red pigment has been of human interest.

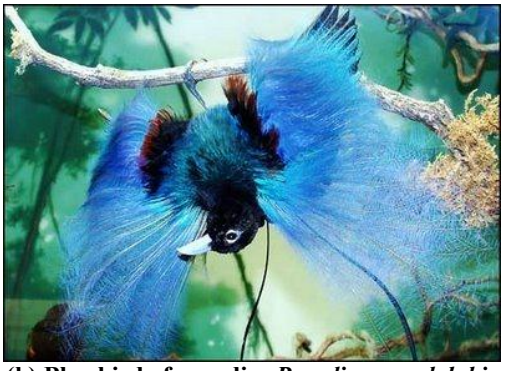
ôRed to the human eye is the most salient of colour experiencesé (it) not only stands out, it stands closer: a direct spatial effect known as chromatic aberration, which brings red surfaces subjectively nearerô (Sahlins 1976:5). Given the focal effect of red, its use in shield and mask decoration has practical benefits as well as psychological ones, enabling warriors and dancers to be seen well from long distances.

In the past, the desire to use bright colours in decoration could not always be satisfied by making appropriately coloured paints; if natural pigments of the preferred colour were lacking in the local environment, as in the case for vivid blues and greens, they were selected instead from similarly-coloured objects, such as leaves, beetle carapaces, flowers, or bird feathers (Figure 9) used as body ornaments to compliment painted skin.

Many of these favourite primary colours remain in the contemporary repertoire (Figures 9 and 10), with the less-saturated, secondary colours (brown, orange, purple, pink) still virtually ignored, despite the wider availability of trade-store colours. Among Wola-speaking Mendi bright red, yellow and blue commercial pigments are favoured ó32 per cent of men and 9 per cent of women owned powder paint (largely red), although a few possessed some blue and yellow tooô(Sillitoe 1988:443).

Figure 10 **Bird of Paradise Decorations**

(a) Wola man wearing feathers from Blue Bird of Paradise

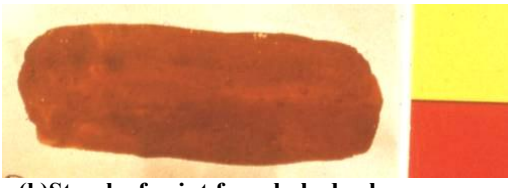


(b) Blue bird of paradise *Paradisaea rudolphi*

My research among the Mendi and Sulka shows that, within each colour field (e.g. red shades) there was a preference for a particular hue; in the context of painting the Mendi favour centre reds (scarlets), over brownish-reds, orangey-reds and purple-reds. Sillitoe (1988:548) found when he made gifts of red powder paints Wola men selected a brick-red shade and rejected a crimson one. This is also exemplified by the way the Mendi alter the brown, yellow and orange clays (Figure 10) by baking them to make them a brighter shade of red (see Chapter 6), and in the way they decorate pearl shells, that only the brightest red can be used, no other shade will do (Hill 1986). Wola speakers also distinguish linguistically between orangey-yellow clay, called *ombiy*, and the redder version after it has been baked, *injibiy*.

Figure 11 **Mendi Orange Clay**

(a) Orange clay ball before baking Photo: author



(b)Streak of paint from baked ochre, compared to Kodak colour chart. Photo: author

The Sulka like bright reds as pigments too, selecting different hues for different purposes. For them bright red ochres have always been quite scarce; a locally available source of browny-red clay is considered too dull to use as a red paint, so they reject it as a colourant. The Sulka have no knowledge of firing clays to make them redder, but have instead devised ways of extracting red dyes from many plants sources, manipulating the shade by varying the ingredients and proportions.

The Sulka linguistic term for red (*svel*) covers several shades of English red, from deep orange, as used on dance ornaments, through mid-red, as used on wooden objects, to deep pink, as used on masks. For masks they favour blood-coloured reds, since blood from the tongues of important initiated men was often used traditionally to paint them. The deep crimson-red dye made from *Coleus* sp is sometimes referred to as *nginiel,* meaning ôbloodô, but they do not call rust-coloured reds *nginiel,* indicating they can distinguish subtle differences in red hues. When using trade colours, the Sulka select hues which exactly match their traditional paints, that is pinky-reds for masks, and russet-reds for shields and house posts. Today, to get the pinky-reds they sometimes use fluorescent pink high-lighter pens.

It is interesting to note that neither the Mendi nor Sulka have a single colour term for blue. For both groups dull/dark blues (Table 3) are referred to as black, bright blues and are called green (or ógrueô, as in Figure 7). In effect, the blue shades are shared between the ôblackô and ógreenô categories, with very pale shades sometimes classified as white (Sillitoe *pers comm* 2011). Traditionally blue was the colour used most rarely in painting, perhaps because mineral blue pigments were either scarce (Mendi area), or non-existent (Sulka area). A scattering of Mendi speakers had access to a blue mineral (vivianite), which they liked and used as face paint, but it was not widely available.

It is interesting to note that despite the lack of pure colour terms for blue, both the Mendi and Sulka admire blue shades, selecting blue trade beads, blue cloth and blue trade-store pigments for contemporary self-decoration. In the past, the most easily accessible blue colourants for both groups were purplish-blue shades from plant dyes (see chapter 6). When laundry blues and other blue pigments became available in New Britain at the beginning of the 20th century, the Sulka sometimes replaced the green paint of mask decorations with blue. (This may have also coincided with their natural green earth pigment becoming scarcer).

When both green and blue colours are equally accessible through the purchase of manufactured pigments, the Sulka will often select both for design elements which were traditionally occupied by just green. This suggests that, as well as sharing a linguistic

term, green and blue have equal status aesthetically. Even when used together a symmetrical balance is achieved, both the green and the blue have the same triangular shape and stand opposed on either side of the red.

Figure 12 **Sulka Masks showing Green and Blue colours**

Mask with traditional colours - red, black, green. Ubersee Museum, Bremen. No: D13653

Blue elements replace green, (red areas have faded) Hamburg Museum fur Volkerkunde No: 1355

Both blue and green used on same mask (Guma village, Wide bay). Photo: Hill, 1986.

Forge (in Layton 1982:) records that the Abelam word for blue is black (dark) and that blue sometimes replaced black in designs, and that where ó ñboth colours have been applied to the same object so that a patch that should be all black is half-black and half-blue with an irregular boundaryé .painters deny there is any difference or that there is an inharmonious boundaryò ô(Forge in Layton 1991:155). Whilst the Abelam observe a slight difference in hue, there may be little difference in tone, especially if the dark colours are surrounded by brighter colours, blue and black being classified in the same dark colour category.

Figure 13 **Mendi Fibre Bag (*bilum*)**

Modern Mendi *bilum* with mixture of traditional bark fibres with possum hair entwined and commercially dyed blue and black string. Photo: author

Detail of the bag showing the different tonal and textural qualities. Photo: author

A contrasting situation can be seen in the *bilum* in Figure 13, where the maker, a Mendi woman, had used both black and blue (from commercially dyed threads) in a balanced sequence; she does not interrupt one blue row with black, but alternates the blocks or rows, clearly demonstrating discernment between blue and black. Differences in hue may not always be important, as long as the pattern of aternating dark and light stripes is still maintained. Another visual effect on this bag is that the grey bands are fluffy and thick (they have possum hair twisted into the bark twine), resulting in alternating rough and smooth textures.

Discussion

This section has identified the basic colour terms for each group and the fact that they correspond with the preferred colours used in their art forms. It also shows that language confuses the interpretation of colour because where there are only three or four terms they each refer to a wide range of colour stimuli, which might include dark and light tones; ócultures have different ways of dividing up the range of colour they experienceô (Layton 1991:152).

The colour ócentityô is difficult to assess as it not always separated from other effects, such as tonality (bright versus dull or light versus dark) and texture (matt versus shiny, or rough as opposed to smooth). All these visual qualities are incorporated into designs; they contribute to the overall effect and are used to communicate, as will be discussed in the new few chapters.

CHAPTER 5
COLOUR USE AND DESIGNS

Introduction

Why is it important to interpret designs and colour use? If they are on objects in a museum context, they are the parts that show, and whether in the context of a ceremony, or a museum setting, they are the intended focus for a viewerôs attention. They are the starting point from which to peel back layers of meaning; ólooking into art forms means examining their parts and composition, as well as the effect of the wholeô (Thomas 1995:9). This chapter considers how colours are used in decoration, both singly (monochromatically) and in combination (polychromatically) and starts to explore meaning and context. This thread will be followed through in subsequent chapters, when the role of the painted objects and decorated performers will be discussed in the framework of accompanying ceremonies.

Painting schemes of the Mendi and Sulka are non-mimetic; where elements depict real objects they are not necessarily the correct shape or colour, thus a green, spiky-edged leaf might be painted red and straight-edged. Many motifs are even more abstract óput there to catch the viewerôs attentionô (Corbin 1990:75) and do not represent anything tangible. Looking for meaning in a design as a whole, such as on a war shield, has had unsuccessful results (Craig 2005:7, Sillitoe1988:165). When designs were ódissectedô into separate elements it achieved a better response level; ówhen requested to identify elements rather than entire designs, some imaginative (Wola) individuals gave replies linking them to the man-like designsô (Sillitoe 1988:165).

Among the Sulka, focusing on individual elements often got good responses with several informants agreeing. However, there were also times when it was subjective and interpretations did not seem to fit, for example, when asked to identify a five-pronged shape on a dance ornament one informant suggested it was a comb, the second believed it to be a ó*han bilong tumbuna'* (ancestorôs hand).

Many PNG people are still continuing the long-standing traditions of their forebears (Sillitoe 2009:30; Craig in Beran and Craig 2005:7), but the iconographic significance of certain decorations, having routes in pre-history, may be no longer known. Artists also borrow designs from neighbouring groups or Western concepts, and the intended meaning may not always be handed over.

For the makers and performers of the art forms, and their indigenous audiences, the exact meaning of a design element is not considered significant for they understand

the overall effect of the ceremony. It has become important for western audineces, because the painted objects are out of context. Learning that a betelnut frond or a pig is portrayed by a design or shape, immediately gives an idea of which plants and animals have social significance, but that they are totemic or people eat them, is only part of the story. Painted surfaces alone cannot give all the answers; ólooking behind surfaces means looking into contextsô (Thomas 1995:9); the role of the whole object needs to be understood.

Colour connections are complex, many are metaphoric. On people and accompanying dance-ornaments paints are part of performance art, in which body movements, songs and music are also add to the overall effect. A certain group may wear red feathers because they like the colour red, but colour is not necessarily the only factor to be evaluated - there may be other qualities about the bird they seek to draw upon. The Melpa people wear red Bird of Paradise plumes because this óassociates the dancer with the graceful movements of the (male bird) when it is in display before femalesô (Strathern and Strathern 1971:141).

Colour metaphors may be even more obscure: Melpa men also wear human-hair wigs during dancing to make them attractive to women; these they coat with red ochre and resin from the *kilt* tree which has red flowers. By association with the redness of the flowers, the resin helps to increase the redness of the ochre; the red flowers are attractive to birds so metaphorically, the head-dress has the power to attract women in the same way as *kilt* flowers attract birds (Strathern and Strathern 1971:92). Colours are part of a greater effectuation intended to communicate.

MENDI

Examples of mono-colour usage

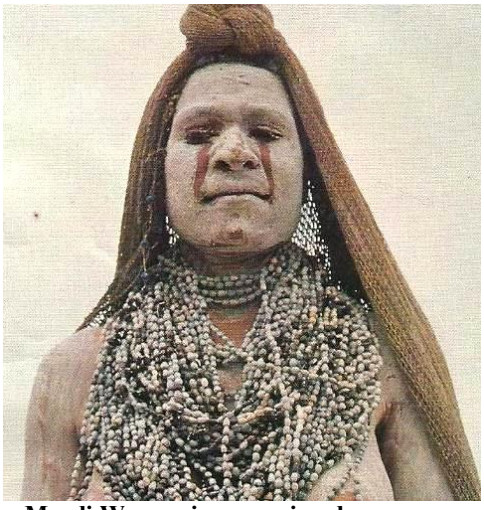
The Mendi make much use of single colour applications in their painting. A large expanse of one colour can be startling and it camouflages the natural geometry of the object. In some contexts the visual impact of one colour is greater than when adjacent to others and the communication powers are enhanced.

White paint alone is used in Mendi body decoration for mourning to create a negative effect. No pattern is used - the white is smeared roughly on the skin and garments, hiding natural features; the presence of other colours would reduce the effect of its intention to shock. Tear stains etched into the facial paintwork inspire a greater feeling of sorrow. The daubed paint is meant to be the opposite of beautiful; the lack of

care associated with its application is intentional (OôHanlon 1992). It opposes the careful painting done for dances and ceremonies, where best body decorations are worn. The matt texture of the white clay is also important, being the opposite of glossy black the Mendi regard as healthy; it is compared to the skins of ill people (Sillitoe 1988).

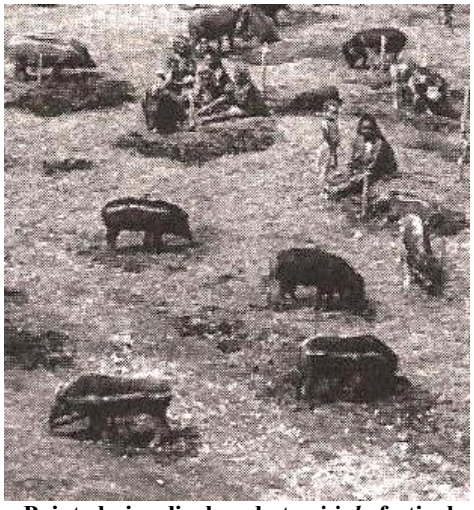
Pigs too are painted in single colours, red for festive exchanges, such as those for marriage and *sai ink,* (Figure 15) and white or grey clay for sombre occasions, such as mortuary ceremonies with one or two stripes along each flank described and one along the backbone. The Mendi people interviewed had explanations for the colours use, that ógrey was for sad occasions and red for happy occasionsô and that it made the pigs look attractive (Hill 1986).

Figure 14



Mendi Woman in mourning dress after Crawford, 1979

Figure 15



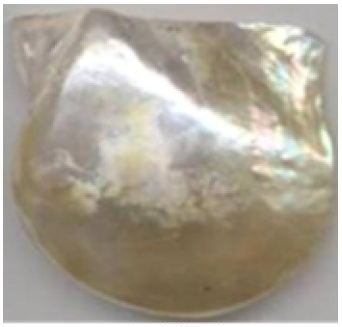
Painted pigs displayed at *sai ink* festival after Sillitoe and Sillitoe 2009

Red paint too, is used as a single colour on pearlshell ornaments (*momak somb*) made from the pearl-oyster (*Pinctada maxima*) which are used as neck ornaments, heirlooms and wealth items in exchange transactions. They have become a symbol ósocial statusô (Ryan, 1961:57) as well as óclan unity and social solidarityô (Mawe, 1985:40). Rubbed on as a thin film, the red ochre enhances their natural pinkish hue, without obscuring lustre; it is also added to carrying straps and leaf packaging. Mendi informants emphasised strongly that only red paint and no other colour can be used and that an unpainted one will have no value and that the brighter the red, the higher the value (Hill 1986); the brightness is itself held magically to attract further wealth (Strathern and Strathern 1971:20).

Before painting the shells, men must obey certain taboos, such as refraining from sex and not eating certain foodstuffs e.g. taro and *pitpit,* (*Setaria palmifolia*). Failure to

comply would render the shell invaluable and could result in sickness and death among exchange participants (Mawe 1985).

Figure 16 **Pearlshell (*Pinctada maxima*)**



(a) Uncut shell of *Pinctada maxima* Source|: www.googleimages

(b)Ochred pearlshell Photo credit: author

(c) ochred leaf packet for storing shell. Photo credit: author

Beyond enhancing value, the act of painting enables the current owner/caretaker to ópersonalise itô and create a record of ownership, before it moves on to another person (either through exchange or inheritance). New paint is often placed over older paint; in the repainting, men are embellishing an object that was created and used by someone else. When judging and accepting a pearl shell, the new owner acknowledges the details of the shell and the beauty represented by the paint and other features. Each shell bears a unique set of natural and enhanced characteristics, recognisable to those that have recently owned them and passed them on, for they cannot accept back one they have recently given. This helps ensure wealth flows further afield to a wider exchange circle, good for promoting social harmony (Lederman 1986).

Pearlshells form a considerable part of bridewealth payments. They are symbolically implicated in a series of rituals performed by the couple at dawn before they start residing together; óthe red crescent of the rising sun symbolises red ochred pearlshells. The husband will by implication transact quality wealthô (Sillitoe, 2009:78). Accompanying incantations make reference to other red objects; óthe red berries of the *humb* tree (*Euodia* sp) and the birds these attract to feed, symbolise pearlshells and pigsô (Sillitoe and Sillitoe 2009:78).

Red alone was applied to wooden sticks, *kopon*, (Figure 18) and surrounding stones used in the *temon ne* cult. The ochre was mixed with pigôs blood and spread thickly. It was generally believed to be a magnet to ancestor spirits which feed on it; óanscestor spirits are hungry for bloodô (Mawe 1985:54).

Black paint as a single colour, was applied on a skull rack (Figure 17) used in the *timp* ceremony; the black contrasted with the dull brown of the house walls and the red posts placed nearby, serving to emphasise the curious shape. The rack was stood upright in the *timp* house, with the side branches pointing upwards, acting as a set of hooks upon which to hang the skulls of pigs killed during the ceremony. Thus the blackness of the rack projected forward the whiteness of the skulls, making them look larger and impressive. The skull rack became "the focus of some sort of competition between the men at the conclusion of the ceremony" (Pretty, 1969:28).

Figure 17

Mendi scull rack, South Australian Museum, Photo: author

Figure 18

***Kopan* Sticks painted in red ochre used in the *temon ne* cult. Source: National Museum, PNG. Photo: author**

Some single paint schemes on objects make use of the surface topography such as the furrows and ridges on a hornbill's beak ornament, *so-alongo* (Figure 19), used by men as back decoration, and forming part of everyday, second-best or finest attire (Sillitoe 1988). Paint is placed in the grooves to accentuate the naturally white ridges and be seen from afar: red for dances and black for warfare. Mawe (1985) records these ornaments used in a particular ceremony, *timol*, for which they are freshly painted red.

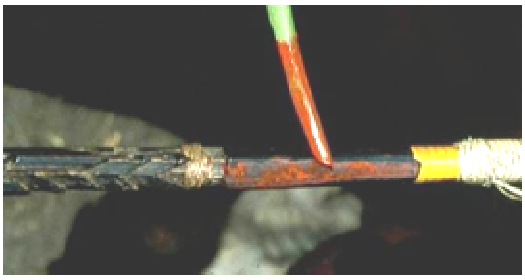
The effect of alternating paint with substrate can also be seen on carved arrows (*warumbe*) which are made of wood and bone. Designs are incised into the point or fore-shaft of the arrows, over which red ochre is commonly rubbed (Sillitoe1988:153). When arrows are carved and painted, "they are be-spelled by the owner to increase their effectiveness" (Ryan, 1961:238). Mendi informants believed that red ochre gave power to the arrow, directing it to its target (Hill 1986). They also talked of using red, white,

and yellow paints, but never black on arrow heads, as these bright paints frightened the enemy. The paint served to highlight the design and accentuate the length and sharpness of the weapon, thus rendering arrows viewable at distance and very intimidating.

Figure 19

Mendi hornbill beak ornament
Photo: author

Figure 20



Incised arrow (Gahuku people) painted with red ochre. Photo: author

Generally each warrior carved his own arrows designs; although the repertoire of motifs is limited, they are usually sufficiently different to tell them apart (Sillitoe 1988:545). Identifying who shot which arrow was an important factor where serious injury or fatality resulted; it helped settle likely disputes (Sillitoe 1988:545). Carved and painted arrows are still made and used today for dances. People acknowledge that designs have aesthetic appeal and that ôthey enhance the bearerôs personal splendorô (Sillitoe 1988:156).

Figure 21 **Mendi Smoking Pipe**

Man scorching design on to bamboo smoking pipe (Sillitoe 1988:211)

Designs on smoking pipes are also monochrome (Figure 21) bearing elements such zigzags, cross-hatching, dots and wavy lines. The black colour is burned on using fire embers, rather than by painting; the black contrasting with the etched areas of bamboo. Men place designs of their choice, which may have no meaning other than identifying the owner: ôthe decoration is like (writing) our name on our tobacco pipesô (Sillitoe 1988:207).

There are practical and aesthetic reasons why one colour might be used rather than two, and there are also symbolic ones. On Mendi brides black paint only is used to decorate the skin (Fig 54). This, for some Western eyes, does nothing to enhance her beauty as it hides natural features. Many metaphoric meanings have been proffered to explain the use of this Highland-style of bridal ornamentation. In mimicking that of male body decoration (bright colours being absent) it has male associations (Strathern and Strathern, 1971). Analogous with sperm and healthy skins, the oily black paint may serve to encourage fertility in the impending union (OôHanlon, 1983). The shininess also has associations with wealth: ówhen the head of the bride is anointed, should the oil run free and straight, it is a sign that her kinsmen will secure a generous bride priceô (Strathern and Strathern, 1971:43). The black paint also: ósymbolises the coupleôs well being, relating to physical fitnessô (Sillitoe and Sillitoe, 2009:77).

Examples of Polychromy

Two, three and four colours may be employed in Mendi polychrome designs, but there are many instances where only two colours are used; this can have a striking effect, especially when they are contrasting. One colour can be used to accentuate the other, as on *kepel* stones, where black, white or sometimes yellow, serves to emphasise red which mimicked blood (Mawe 1985:54).

Figure 22 **Mendi *Kepel* Stones**

(a) **(b)** **(c)** **(d)**

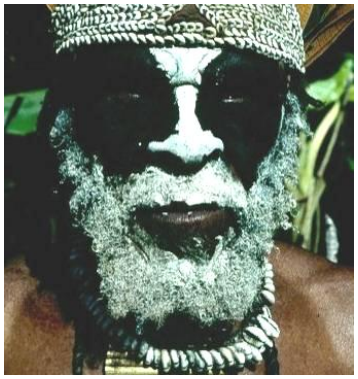
Examples of Mendi painted ritual stones used in the *kepel* ceremony. Source: National Museum and Art Gallery. Photo credit: author

On *kepel* stones, two colours alternate in parallel stripes, accentuating the curved or linear form of the stone which óattracts the spiritôs attentionô (Hill 1986). The stonesô shape was significant - long ones may have represented male ancestors, while round perforated ones were likened to female forms; óthe two kinds were sometimes kept in different sections of the house ñlest they fightò ô (Ryan 1961:269). Many stone objects, for example the pestles, mortars and club-heads, were carved by a pre-existing culture;

others were naturally weathered rocks. To the Mendi they were the órepositories of ghosts é and (had) also some association with fertility and prosperityô (Ryan1961:268).

The Mendi played no part in altering the stonesô shape, their only creative act was the addition of paint, applied carefully by hand with soothing and caressing movements, as part of a ritual to make the stone's spirit accepting of the accompanying spells (see Chapter 8). Designs on *kepel* stones follow the geometry of the substrate (Fig 22 a-d); tangential and radial lines in red accentuate roundness, while the circular central blocks highlight the hollows. The positioning of red in or around the hole on the mortar stones may have been emblematic of menstrual blood; óthose for the female spirit are painted red all overô (Strathern and Strathern 1971:178). Each stone was named after a deceased ancestor and kept in a shared *kepel* house containing many others (Mawe 1985:55). The painted designs also helped identify ownership to ensure the correct ancestor spirit was being targeted.

Figure 23 **Styles of Mendi Men's Face Painting with Increasing Elaboration**



a. Mendi man with warrior paint. Photo credit: author

b. Mendi man's face paint with yellow paint on nose. Photo: author

c.Wola man's face paint (contemporary). Source: www.wemsolodgetours.com

Face Decoration

In self-decoration for some ceremonies, e.g. *tas maik* exchanges, men use first only two colours, with the addition of a third or fourth colour as the festival reaches its climax. They begin with black and white to indicate the first stage has been reached. The addition of red and yellow elements, along with the donning of fine accessories, has an elevating effect making the subject more appealing and conveys a message to a particular audience.

Shield Designs

Mendi artifact painting reached its pinnacle in shield art, for which three colours ï red, white and black were often used; more rarely just two colours formed the design.

The large, flat expanse of wood lent itself to a display of juxtaposing colours, allowing for the more complex designs with repeating elements balanced by symmetry.

Mendi shield designs are bold and bright, each colour covering a large space; a practical option to suit their war strategy. Since the main weapon used in the grassland areas of the Highlands is the bow and arrow, shields needed to be seen at distance; were designs too ornate with small motifs, they would have less visual impact from afar. This is an interesting contrast to the more complex shield designs of the Sulka which were observed at closer range, because combat equipment for them involved spears, slings and clubs (Wilpert 1972).

Figure 24 **Mendi War Shields**

Mendi shield, c 1950 showing new designs (in emulsion paint) placed over older, ochred ones.

Mendi war shields, archive of the Metropolitan Museum of Art, Photo: Mervyn Meggitt No: 1996.585.219

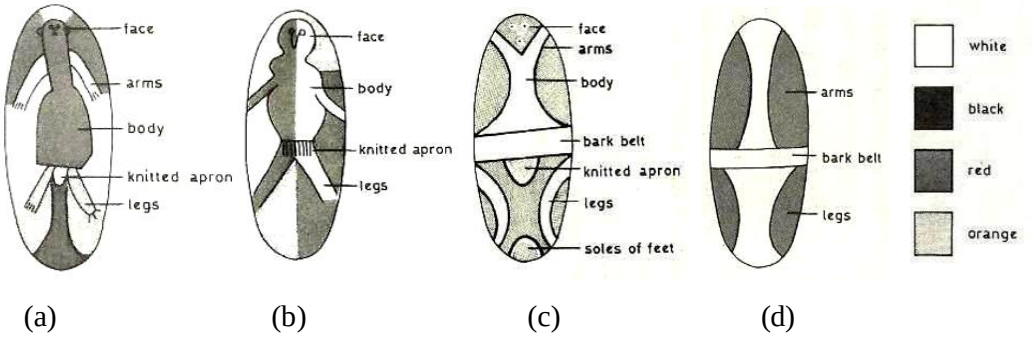
Mendi shield. Todd Barlin collection. Photo: Cameron Bloom. Source: Beran and Craig (2005:135)

Among the Mendi there was no association of a certain pattern with any particular sub-clan or family. Men could choose what they wanted to paint, but within an accepted format. Some individuals had their own personal design, so they might be recognised by close kinsmen fighting on the enemy side (Ryan 1961). Shield designs are mostly abstract but there are many anthropomorphic examples.

Certain basic elements appear on all shields: a triangular shape at the base with apex pointing upwards, with arcs or triangles on opposing sides (Figure 24). Sillitoe (1988) found similar styles among the Wola, in which the convex arches were stylistic forms of human heads and legs. Working with Wola research colleagues to interpret the designs, a sequence was traceable from the obvious human shape with splayed legs (Fig

25a) to abstract forms with recognisable human parts (Fig 25a-d); ôthe man-like design on shields inspires menôs resolve to secure revengeô (Sillitoe 1988:548).

Figure 25 **Wola Shield Designs**



(a) (b) (c) (d)

Group of Wola shields showing development form anthropomorphic designs to abstract ones (from Sillitoe 1988:166)

Possible Meanings for the Colours and Designs on Mendi Shields

The Mendi have non-specific views on individual colour use but informants agreed that paint is put there to intimidate the enemy (Hill 1986). Whilst its main function is defensive, the shield is feared as much as a destructive weapon and there are many accounts of PNG peoples admitting to being terrified by the painted imagery (Beran and Craig 2005:7). Designs are put there to ôunnerve their foes é (men) insist that they are intrinsically terrifyingô (Sillitoe, 1988:165,166). The subject matter is sometimes purposefully aimed at insulting the enemy, for example when genitals are incorporated into the image (Sillitoe 1988:165).

In some designs, the colours seem to have no fixed place; the same style of human figure might be red on one shield (Fig 26a), black or white on others (Figure 25b and 26b). Ryan (1961) also noted that there was no consistency of colours in a given part of the design. When worn paintwork on an old shield was repainted, the original design was sometimes ignored and a new one worked out (Fig 24a); thus an area formerly painted red might be repainted white (Ryan 1961). Sillitoe (1988:548) found that some Wola men changed the colour deliberately to correspond with victory or loss in the previous battle. If one from their group was killed they used white paint to mimic a person in mourning, ôif they killed last, their designs, anthropomorphic or not, feature redô (Sillitoe 1988:548).

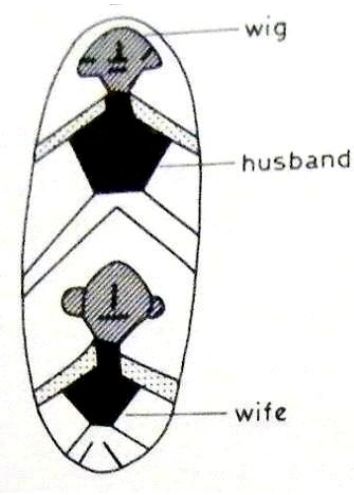
When not in use, shields were housed above the rafters in the menôs house; how much reverence was attached to them out of action, I could not determine. Among the Telefomin of Central New Guinea, stored shields have ancestral skulls placed in front of

them; the shields are said to ókeep the skulls warm é ..thus the shields may be thought of as representations of the ancestors and/or their powerô (Craig 1988:57).

Figure 26 **Mendi Anthropomorphic Shield designs**

(a) Mendi shield painted Red. Source : www.michaelhamson.com

(b) Mendi shield painted white. Bruce Seaman Collection. Source: Beran and Craig 2005:135



(c)Wola shield, both figures painted black, after - Sillitoe:1988:166

Sulka shields had similar associations with ancestral spirits, but this appears not to be the case in the Mendi region. Sillitoe established that the paintwork was only powerful in the context of war, and óthat a decorated shield (standing) alone é . strikes fear into no one - unlike the ritual stones in which they believe their malevolent ancestorsô spirits dwellô (Sillitoe 1988:166)

SULKA

Colour Use and Designs

ñThe Sulka are a painting people, many pigments and all geometrical patternsò (Bateson in Lipsett, 1982:129). They have a strong notion of beauty, associating it with strength, vitality and fertility. Their sense of aesthetics is not just tied into art and decoration but cuts across cultural activities, recognising that óeven gardens must be beautiful to be fertileô (Jeudy-Bellini, 1999). They equate bright colours and attractive designs with growth and good health - young children were thrown against the painted sides of large masks (*hemlaut*) to make them grow well (Hill 1999:484).

Examples of Monochromy

Clubs

Like the Mendi, the Sulka use white paint for mourning, with no other colours; the white pigment, lime, produces a bright, startling effect. White alone is also used on the live pigs given to the deceased relatives to express sympathy with the bereaved relatives. The Sulka rarely use single colours to decorate artifacts; an exception to this is red on clubs. No longer made today for fighting, ceremonial clubs are painted with red emulsion paint (Figure 27), used in dances which act out the fighting rituals.

Figure 27

Sulka War Clubs, Ubersee Museum, Bremen. Photo: author

Figure 28

Contempory Club and shield (Sulka) Photo: author

Tradionally, red sap from a tree *netwek* (*Pterocarpus indicus*) was used to varnish war clubs. Visually the dark red colour enhanced the glossy tones of the wood, making it look denser and heavier; it also accentuated the carved teeth and points to look a more perilous a weapon. The red sap is likened to blood and is sometimes given the name *inginiel* (blood); when cut with an axe, the *netwek* tree bleeds like a wounded person, symbolic with inflicting injury to an enemy.

Figure 29

a. Smoking pipe (Mengen) Museum fur Volkekunde, Basel Accession No: 28181 Collector: Felix Speiser Photo credit: author

b. Sulka Lime Gourd, Museum of Archaeology and Anthropology, University of Cambridge. No: 30.549. Collector: G. Bateson. Photo: author

Tobacco Pipe and Lime Gourds

Certain items associated with leisure such as smoking-pipes (Fig 27a) or lime-gourds (Fig 27b) sometimes bear simple surface designs. As with Mendi ones, the black could be produced by burning, but was sometimes painted on. Tobacco smoking was introduced earlier into New Britain in the early 1900s (Parkinson 1907). Similar styles of smoking pipes are found across the South coast of New Britain; the designs on them are geometric, similar to those put on loin cloths. On gourds the surface is often etched as well as burnt, with the lime powder itself used as a white pigment and into to the grooves to create a brighter effect.

Sulka Polychromy

Sulka polychromatic designs employ three or four colours painted on artifacts associated with ceremonies and warfare, such as loincloths, masks, dance ornaments, house posts, shields and canoes. Imagery is prolific, motifs portraying mythological characters, and totemic plants and animals.

Menôs bark fibre loincloths óup to 4 metres long and 25 centimetres wideô (Parkinson 1999:95), provided a huge length of ñcanvasò for paintwork, allowing for the arrangement of repeated linear and rectilinear motifs in red, black and sometimes yellow. ôThey é wore a very neatly stained waist-cloth marked in very good patterns in most cases with red, yellow and blackô (Powell, W. 1878:111).

Figure 30 **Sulka Loincloths (*katam*) made of Barkcloth (Bateson Collection)**

Museum of Archaeology and Anthropology, University of Cambridge.
Accession No: 30.545 Photo: author

Museum of Archaeology and Anthropology, University of Cambridge
Accession No: 30.546 Photo: author

Designs on these were mainly abstract having their own term (*tlepoin*), the meaning of which is no longer known. They comprise dominant thick black double lines, rectangles, squares and swirls; red occupies much of the background space projecting the black forward. The remaining space may be left unfilled as the natural colour of bark fibres (Fig 30), or it may be painted yellow. Some informants recognised

the ówswirls-inside-squaresô as breadfruits (*Artocarpus edulis*), the cloth being made from its inner bark. There is a symbolic association between the length of the loincloths and snakes; in a myth collected by Bateson in 1928 (Bateson in Corbin 1980), a man washes his long loin cloth, wrings it out and hangs it on a tree which angers the snake spirit *kot* who thinks heôs being mocked.

Figure 31 **The 'Eye' Design on Sulka Shields**

(a) Back of Sulka mask, University of Gottingen. No: Oz 1849 Photo: author

(b) Sulka shield, front Munich 09.661

(c)*salmumu* Centropus ateralbus source: http://worldbirds.eu/

Shields

Sulka craftsmanship excelled in shield art; warriors attributed great powers to the colourful designs on their shields. Masticated ginger was spat around the bare wooden shields prior to decorating, to make the paint adhere well and deflect the spears. Designs on traditional war shields were in the four preferred Sulka colours; red, black, white and green; some examples used bear blue paint instead of green.

Positioning of colours was formulaic: red occupying the main background space, while the motifs marked out in black and white, with green (or blue) lines tracing their shape. Fronts bear pairs of round markings which many Sulka informants recognised as being óthe eye of a birdô (Hill,1986). Paul Anis from the Big Bird moiety, identified them as *salmumu* eyes (Figure 31c), the pied coucal, *Centropus ateralbus* (Hill 1986), ówhose cries alerted Sulka warriors of the approach of an enemy partyô (Corbin 1991:79). Gabriel Langmark, also of the Big Bird moiety, identified the eyes as belonging to the *ngininglaut*, eagle, (Hill 1986).

The eye shape varies in form; painters added their own details such as the elongated point extending from the corner of the óeyeô. Some Sulka men recognised this as a tear, (the *salmumu* birdôs haunting call sounds like crying); others saw it as a spirit (named Tamus) crying. Tears are negative images to portray on shield faces, so were perhaps intending to mock the enemy, as do some Mendi shield designs. Sulka moieties and clans are named after birds, so it is likely that several bird species were

characterised, conceivably to correspond with totems. A border of birdsô feathers gave to the shield the physical presence of birds and made it visibly larger without adding weight.

Figure 32 **Examples of Sulka Shields**

(a) Sulka shield Ethnology Collection, University of Gottingen OZ 1849. Collector: Richard parkinson

(b) Sulka shield Staatliches Museum fur Volerkunde, Munich No: 09.661 Photo: author

(c) Sulka shield Staatliches Museum fur Volerkunde, Munich. No: 09.663 Photo: author

Private Collection, Photo: author This style resembles face of anscestor - *Tamus*

Paintings on the backs of Sulka shields are more abstract with less detail, not all showing the eye motif. Interpretations of the elements on these were varied; some were recognised as ancestor spirits, others praying mantises or snakes, all perhaps offering protection to the wearer.

Figure 33 **Carved Wooden Sculptures on Masks and Head Ornaments**

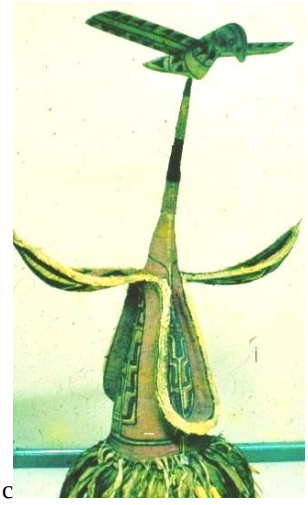
a

Preying mantis head ornament. Museum fur Volkekunde, Basel , No: 28055. Photo: author

b

Headdress portraying the snake spirit *kot* Museum of Archaeology and Anthropology University of Cambridge No: 30.1647

c



Mask depicting bird eating taro Hamburg Museum fur Volkerkunde, 12.135.255. Photo: author

As among the Mendi, the use of paintings on Sulka shields was intended to intimidate the enemy. The degree of fineness was felt to correspond with the strength of the warrior, emphasising again the Sulka notion of equating beauty with vigour. Warriors believed they risked losing a battle if their shields were less beautiful than those of their enemies, as is illustrated by a Sulka myth:

> Nut Vulau prepared for war and his people had to make weapons and shields.His brother, Nut Sie, and his people also prepared for war (against them).They made beautiful shields, painted them with coloured dyes and hemmed them at the edgesé The people of Nut Vulau were unskilled, their shields were not beautiful ...When Nut Vulau saw his brother's shield he was astonished at the beauty of it, and spoke angrily to his people saying, "You know nothing, look at my brother's shield, see how beautiful it is." This ended in absolute defeat of the attackers; they were all killed and only Nut Vulau escaped. The victors (Nut Sieôs side) now inspected the shields of the vanquished and laughed at them
>
> (after Parkinson 1907:239)

Sulka iconography is not always two-dimensional but is often created as three-dimensional sculptures made of wood or pith, in the shape of animals, e.g. praying mantis, birds, snake or plants, e.g. taro. The metaphor can be in the shape of the whole object such as taro- shaped masks (Fig 33c) or their attachments (Fig 33a and b). On these the applied paintwork can show realistic features such as eyes and teeth, abstract features e.g. scales and feathers, or a non-mimetic design just to brighten up an area without detail, as on the taro mask, Fig 33c.

Discussion

In this section it has been shown that the Mendi use a lot of single colour applications, particularly red ochre which is used to communicate with spirits. It has also been established that paints have qualities other than colour ï texture is particularly important: the dullness of paints are associated with negative occasions, death, as opposed to the glossy texture of black paint used for positive situations, such as Mendi marriage, or on Sulka menôs aprons for initiation.

The presence of polychromy, particularly within Mendi self-ornamentation or on Sulka masks, is used to communicate mood and status. Increasing the number of colours indicate that a degree of success has been accomplished and it places the wearer in a positive position. For Mendi anthropomorphic shield designs, they have transposed the concept of body paint on to shield painting; the body of the man on the shield changing colour to denote success or failure in previous battle. Almost cartoon-like these anthropomorphic images can be used to depict gross imagery and insult the enemy.

Within the limited palette of four main colours, the Mendi and Sulka, have used them to create both simple and complex imagery - some abstract, some iconographic. Reading the pictures is one stage, working out why they are there and how they transform the substrate they decorate requires another level of understanding.

óAn object only becomes meaningful through the mediating role it is made to playô (Jeudy-Ballini 2001), so in order to understand the role of paints, it is essential to understand the role of the painted object or person, and all the contexts they pass through, as will be explored further in the Chapters 7 and 8.

Table 5 **Examples of Sulka Motifs and their Interpretations**

Design Motif	Where Found	Interpretation
	Design on back of mask, Australian Museum No: E19200	Flower of a banana 
	Design on basal rim of mask, Australian Museum No: E19200	Represents snake vertebrae  Taken from ://sliceofstyle.com
	Design on side of mask Australian Museum No: E19199	Ancestorôs jaw bone
	Underside of umbrella mask, South Australian Museum	Betel nut frond (*Areca catechu*)  source: ://www.docstoc.com
	Dance ornament, Ubersee Museum No: 13780	Breadfruit and traditional hook to harvest them  *Artocarpus altilis*
	Shield, private collection	(or frog ï *pepgina*)
	Mask, Hamburg Museum fur Volkerkunde No: 3734	Newly blackened teeth of an initiand
	On *matpil* posts Photo: G. Bateson, 1928	 The white represents the fat layers on pork pieces

CHAPTER 6

PAINTS AND PAINTING: RAW MATERIALS AND APPLICATION TECHNIQUES

Introduction

The previous chapter focused on the colours of the Mendi and Sulka, their use singly and in combination. The aim of this chapter is to examine the raw materials used to create each colour, and look into selection criteria. It does this by evaluating colouring properties, preparation methods and their application.

Paint Materials and Their General properties

In order to be effective, that is to cover the substrate, remain bright and stay in place for a reasonable time, paint requires the following properties:

- Good hiding power - this refers to the opacity of the colour and how well it hides the substrate (Gettens 2011)
- Colour fastness - how long the colour endures without fading or changing.
- Binding power ï ability to remain bound on to the substrate without rubbing off.

Another factor to consider is the nature of the substrate, whether hard or soft, porous or non-porous, organic or inorganic; pigments and their media behave differently on different substrates. As a general rule plant pigments, which are water soluble, bind better to soft, organic materials, for example cellulose, while mineral pigments, which are coarser grained and insoluble, are more suitable for hard inorganic substrates such as stone. The properties of pigments can be changed by the addition of other materials, such as binders or mordants. Before examining source materials it is also necessary to understand the compositional ingredients of paints and how they work, as outlined below:

- Pigment ï the main colouring substance, either solid particles (e.g. ochreous clay) or organic matter in solution (e.g. plant dyes).
- Vehicle or medium - a liquid, such as water or saliva, which holds solid pigment particles in suspension in order to distributed them evenly across the substrate; dyes are usually in their own vehicle ï plant sap.
- Binder or fixative - a resinous or gum-like substance which helps adhere the pigment particles on to the substrate; it is carried in solution or suspension in the vehicle, but remains with the pigment on the substrate (Gettens 2011). Again, plant pigments are already in a medium which contains binders such as gums or mucilages.

- Mordant ï a substance which binds chemically with an organic pigment and assists in binding it to the substrate (Cardon 2007). Mordants can be metallic salts (e.g. fire ash or slaked lime) and organic compounds - e.g. lemon juice.

All paints require a pigment but not necessarily a vehicle or binder. The Sulka use a pigment (lime powder) on its own to decorate lime-gourds, while the Mendi apply red ochre alone on pearlshells; these examples meet the needs of the particular purpose. Some paint recipes comprise pigment with vehicle, but without binder, e.g. Mendi red ochre with water on shields, or vehicle with binder e.g. lime powder with sugar cane juice on Sulka canoes, or red ochre with pigôs blood on Mendi *kepel* stones, where the blood becomes binder and vehicle together.

Pigment Sources and their Specific Properties

In PNG, there are many naturally coloured materials, requiring little preparation that can be applied directly as colourants for immediate effect. Many are biological, such as the bright yellow pollen from amaryllis flowers used as yellow face paint by the Gahuku people, or fresh blood from a cut human tongue as used by the Sulka to colour their masks. Such examples have limited use; they fade easily, have poor hiding power and do not bind well to many surfaces. Whilst these may have been chosen for ease of preparation and short-term use, more durable colourants, such as ochres, or stable plant dyes needed to be sought, for more long-term use.

Clay-Based Mineral Pigments

For many applications earth ochres (ferruginous clays) answer all of the ógoodô paint criteria. Composed of small round grains (less than 2 micrometres) they spread easily across most surfaces, requiring only simple application equipment - fingers or basic brushes. They can be applied dry, or suspended in water, saliva or sap. When wet, they attach well to many surfaces, e.g. wood, porous stone and even soft fibres, due to the formation of hydrogen bonds with substrate molecules. Thus laid down, coloured clays have good covering power and stay in place for medium-term usage; if they rub off they can be easily over painted, as on shields.

Being white to pale greens and browns, the clay minerals themselves do not contribute to the colours of clays; this is derived principally from iron minerals, oxides and hydroxides, e.g. haematite (red), goethite (yellow-brown) and lepidocrocite (yellow-red-brown-black), which are present as admixtures in varying proportions. Their colour

is so intense that they need only be in small concentrations; absence of iron minerals renders the clay very pale (white, beige and grey).

Though very functional, earth paints in PNG provide a narrow palette, being available in a small range of colours: mainly white, red, yellow-orange, brown, grey and very pale greens and blues. Deep blues, greens and blacks are rare, known only in a few localities (Hughes 1977) e.g. a lustrous green, used by the Chimbu people as face paint. Thus the major obstacle precluding the use of earth paints is when they are the wrong colour, or are locally unavailable. It is then that they might be chemically altered by heating - e.g. orange clays are baked by the Mendi to make them redder, or in the case of the Sulka area, biological alternatives would be sought.

Calcium Whites

In PNG, many white pigments are made of calcium carbonate, which derive from weather limestone or soft chalk. Others originate from shellfish; in some riverine regions, e.g. Bogia in Madang Province, white pigment is obtained from baking fresh-water molluscs (Hill 2001). In many coastal regions, the main white pigment used is obtained from burning corals to produce lime powder (Figure 43), e.g. Panamecho, New Ireland (Bafmatuk 1983), where it is used as a white paint on *malangan* carvings. Lime is now widely commercially available, being an accompaniment to betel chewing and can even be found in markets in the Highlands. This same type of lime is used as a dye mordant (see below).

Carbon Pigments

Another category of mineral pigment used in PNG, which is not clay nor derived from the earth, is carbon black. Even though it originates from a living organism (e.g. charred wood) here I classify it as ómineralô, because, through the action of burning, the organic constituents largely become lost. The black residue (charcoal) that remains is an admixture of carbon and potash and being solid, inorganic and insoluble, it performs like clay. A purer form of carbon (soot) with lower ash content, can be obtained by burning resinous plant saps, e.g. from *Aleurites molluccana*, as is made by the Sulka.

Biological Pigments and Dye technology

Biological pigments are naturally coloured compounds from living organisms e.g. haemoglobin of blood, carotenoids in carrots (Czygan 1980). In PNG, with the exception of blood, biogenic colourants emanate from botanical sources. In other parts

of the world, animal dyes may come from insects, e.g. *Kermes* spp from Asia, or molluscs, e.g. *Plicopurpura patula*, located in the eastern Pacific (Cardon 2007:558) but these sources are not endemic to the Melanesian region.

Whilst plant pigments provide a bigger colour range than mineral ones, they have many disadvantages, a key one being extreme sensitivity to light; another is difficultly to extract because of limited technology available. Common methods used to release plant pigments from surrounding tissues are: steaming, mastication or maceration; they remain, however, bound in the sap.

Unlike ochres, organic pigments are extremely biodegradable so cannot be prepared in large quantities then then stored for future use; once extracted, they need to be used quickly. Regular supplies of botanical colourants, for example flowers or fruits, are not guaranteed and may only be available seasonally when they ripen to the appropriate hue. Any small change in climate may delay maturation and affect colour. To overcome this problem, users can improve reliability of yields by cultivating dye plants, e.g. *Coleus* spp as cultivated by the Mendi and Sulka.

Being dilute solutions in water, plant pigments have weak hiding power on hard surfaces and are more suitable for staining fibrous materials, which readily adsorb them (e.g. purple pigment from *Coleus* used for colouring Mendi aprons). Plant dyes can be used unaltered, but they work more efficiently with mordants, particularly metallic salts which bind chemically to them thereby assisting separation from surrounding plant constituents; mordants also act to intensify or alter hue and improve light-fastness (Cardon 2007:5).

In PNG, mordanting technology is practised only at a basic level making small quantities of dye at a time - e.g. dipping cut stems into fire ash, (which contains potassium salts), or steaming coloured leaves (e.g. *Begonia* sp) with *bilum* twine and fire ash inside a bamboo tube, as practised by the Fore people of Eastern Highland (Hill 1986).

Many coastal groups use coralline lime as a mordant, which is a mixture of calcium hydroxide and calcium carbonate. Being white, granular and capable of absorbing the dye colour, lime can be used to make solid ópowderôpaint, when sufficient quantities of it are added to the dye mixture. Sulka men harness this method when they mix white lime powder with certain plant colourants, e.g. yellow curcumin dye to make an orange paint for softwood dance ornaments (Hill 2001).

As has been identified in the introductory chapters, the Mendi acquire most of their colourants from mineral sources. Organic paints from animal sources, such as pigs' blood, are used in significant quantities, often for the purposes of appeasing spirits. Plant parts are utilised to make dyes for face decoration and fibre body ornaments, as constituents of charcoal paints and as fixatives for ochres.

Red and Yellow Ochres

In the Bela district, 10 km north of Mendi, (Figure 3) orangey-yellow and brown clays occur naturally in the as sub-soil under grassland, formed as a weathering product of the underlying limestone and igneous bedrock. The colour of the clay depends on the type and percentage of iron oxide present (see table 6); red clays are typically rich in haematite, yellow clays contain in more goethite, while the browner ones contain both iron oxides, plus darker micaceous minerals (e.g. smectite, illite) and may have high organic content (Cox, Price and Hart 1973). The principal yellow colorant used in self-decoration and artefact painting is obtained from yellow clays of varying hue, which are abundant in the Mendi valley.

Naturally deep red clays are less extensive, often occurring as deep-seated pockets where higher concentrations of haematite accumulate, washed down from upper levels (Bleeker 1983). These sometimes become exposed through landslides, erosion or road excavation. Red ochre deposits were once rare in the Bela sub-district becoming, becoming uncovered when the road was excavated in the 1960s (Hill 1986). Not all reddish clays needed to be baked; those perceived as red enough, such as the traded-in Enga ones, were ready for use.

Acquisition of Ochres Through trade and Local Sourcing

Ryan refers to red and white paints used on war shields being óof mineral origin, not locally obtained but traded in from the westô(Ryan, 1958:247); it is possible that sources of ochre were much rarer before road cuttings exposed them. Mendi people from used to buy red ochre from Laigam and Porgera until fairly recently (c1970s) maintaining that sources from the Enga people was far brighter in colour and more highly valued than local supplies. They traded with salt packs of a similar size, or one bamboo container of *tigaso* tree oil (from *Campnosperma brevipetiolata*), previously bought in from Lake Kutubu people. If salt or tree-oil were not available for exchange,

then red ochre could be purchased using pigs, pearl shells (*Pinctada* spp) or *nassa* shells (*Nassarius* spp)). One lump of ochre the size of a 2.5 kilogram bag of rice would cost one large pig or five pearl shells (Hill, 1986).

Indigenous trading of paints also took place for big ceremonies such as the *mok ink* (pig feast). Lederman (1986:179) records a Mendi host clan buying in face paint and other body decorations from within the clan. The Wola people ópreviously é . gave small parcels of salt, a few loose cowries and such like in exchange for a pile of red ochreô (Sillitoe, 1988:443). Where commodities were bought in from another group in a different region e.g. tree oil acquired by the Mendi from the Foi people in Lake Kutubu, this was normally done through kin living closest to the trade partners (Sillitoe 1989:149).

Figure 34

Ochre deposit by road cutting, between Bela and Sol (Figure 3) Photo: author

Figure 35

Ochre balls freshly gathered, Gahuku people, Eastern Highlands. Photo: author

Collection and Preparation

Whether traded in or acquired from Mendi territory, ochrous clays had to be dug from the source deposit, and prepared for transit. This involved rolling into spherical pats and drying in the sun to prevent mould growth. They were then wrapped in leaf packages for transit. If insufficiently red, and baking considered necessary, the clay balls were softened by wetting, and re-rolled into smaller clumps of about golf-ball size; these are then wrapped in leaves of *Pandanus* sp and place them in a bonfire (Figure 36) fuelled by wood from the *pip* tree, and left for several hours.

The leaves and wood have red associations ï *Pandanus* fruit is red and *pip* wood has a red core; they are used in the hope that their redness transfers to the clay.

Insufficient heating, or cooling too quickly, resulted in the outer part remaining yellow; this had to be peeled away before use, thereby wasting precious material. Charms were sometimes used calling on red items (e.g. red lorikeets and iron rust) to help the colour change take place (Sillitoe 1988:443).

The following is an example from the Wola people:

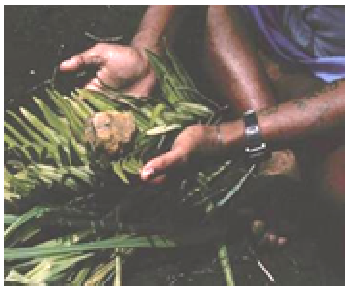
Hat	*kiy*	*omb*	*kiy*	*huwkbaip*
Red ochre	Turn red	orange clay	turn red	iron oxide stain
kiy	*olzhomb*	*kiy*	*ay*	*kiy*
Turn red	fairy lorry (lorikeet)	turn red	red lorry	turn red

(after Sillitoe 1988:443)

A Mendi belief as to how clay baking first came about was told by Paki Ya, suggesting that red ochre was not always locally sourced and was baked before transportation.

> Men knew they had to carry the ochre over long distances, so they cooked it first to preserve it so it would last a long time and they could use it bit by bit.
>
> (Hill 1986).

Figure 36 **Baking Clays to Make Them Redder**



a. wrapping the orange clay. NB this demonstration used fern leaves, not *Pandanus*

b. building up the bonfire

c. firing the clay

The sun-dried or baked red clays are wrapped for storage, with easy preparation when required as paint. Small lumps are cut or broken away, placed in a suitable receptacle and pulverised to a powder; receptacles are usually the concave portions of bark or leaf, enamelled metal dishes or tobacco tins. The resultant powder can be used dry or mixed with a liquid medium such as water or saliva, then applied "by means of fingers, leaves or crude brushes made of chewed twigs" (Ryan, 1961:247).

White Paints from Mineral Sources

For the Mendi, white paint, *kaik*, emanates from two mineral sources, clay and limestone. White clay is often located in wet environments, where iron oxides have

become leached out by running water. Owing to the high rainfall, it is widespread as a sub-soil (Bleeker 1983) so the Mendi had no need to acquire it from afar. It becomes exposed at the surface due to erosion (Sillitoe 1988:444) such as around the creek banks or through cultivation, i.e. dug channels. When required as paint, an appropriate quantity is scooped out from its source and rolled into apple-sized balls and kept moist by wrapping in layers of waxy leaves, ready for immediate use. If stored for future use, the balls must be sun-dried till hard, to prevent bacterial growth. For painting hard surfaces such as shields, white clay can be used dry by rubbing the hardened lumps across the surface, like school chalks. For application to softer substrates, such as skin and fibres, objects (Figures 23a and 38) it needs to be pulverised and re-wetted.

Figure 37

(a) Mendi boy digging out white clay from the sides of a creek. Photo credit: author

Figure 38

(b) Netted cap, *teng elail* coated in white clay for mourning. Photo credit: author

The other white pigment used traditionally was crushed limestone rock, located where areas of limestone are exposed as outcrops and have become softened by weathering. Often brighter white in tone than the pale clays, it is used to paint shields and arrows. It also finds a place as a paint and tonic in pig husbandry (see Chapter 8).

Blue Mineral Pigments

In the Mendi Valley blue earths are not widespread but have been be located as tiny nodules in brown clays in river banks or creek beds. Samples collected for this research came from Poroma sub-district (a Kewa-speaking area) and were identified by XRD as the blue mineral as vivianite, (iron phosphate), a weathering product of yellow goethite. Mendi informants from Bela, living among the Kewa people I visited, spoke of similar small deposits in their locality which was used for face painting.

In the Mendi Valley, mineral blue appears to have been restricted to those groups having access to it but was not traded or circulated, unlike further west in Chimbu

Province, where it was widely traded (Hughes 1977). Around Mount Hagen it is found along with white and yellow clays ‘in or beside rivers’ (Strathern and Strathern 1971). Today the use of blue colours in face painting is now extensive, the pigments deriving from powder paints purchased from trade stores.

Table 6 **Results of Mineral Pigment Analysis Using X-ray Diffraction**

Mineral Present	**Mendi red** Munsell value 7.5YR 6/8	**Mendi White** Munsell value 2.5Y 8/2	**Mendi Yellow** Munsell value 7.5YR 6/8	**Sulka Orange**
Quartz	●	●	●	●
halloysite (clay mineral)	●	●		
kaolinite (clay mineral)			●	●
Chlorite (mica)		●		
Illite (mica)	●			
Smectite (mica)				
Vermiculate (mica)	●			
Goethite (iron oxide)	●		●	●
Haematite (iron oxide)	●		●	●
Potassium feldspar	●	●	●	●
Berthierine			●	

Carbon Black Pigments

Dark grey clays occur in the Mendi region but, owing to their natural content of light coloured minerals, are seldom black enough to be used as paints. The black paint used most frequently by the Mendi is charcoal (*tim*) obtained from the burnt wood such as from *wan* (*Parasponia rigida*), a widespread nitrogen-fixing species of fallows, commonly used for firewood. This shows that some raw materials are selected for practical reasons, i.e. they choose to burn *wan* wood because they have plenty of it; ritual reasons may be attributed to it also.

To prepare charcoal, pieces of *wan* twigs are charred slowly in hot fire cinders until they turn black and can be lifted out and placed into a suitable container, such as a dish or curved piece of bark. Some cleaning away of adherent white ash may be deemed necessary as it can lighten the black colour; the charcoal fragments are then crushed using the flat end of a wooden stick.

For the painting the body, charcoal is used with an oily medium which helps spread the charcoal evenly across the skin and imparts a brilliant sheen. *Tigaso* oil, from *Campnosperma brevipetiolata* trees in the Lake Kutubu region, was the favoured choice. When this medium becomes scarce; fat from pigs is used as a substitute for tree oil stored in bamboo tubes it can be taken out as required by softening over a fire (Sillitoe 1988:440). Other commercially available oils are also used, e.g. castor oil.

Today, carbon is commonly acquired by scraping the bottoms of cooking pots and around the wicks of kerosene stoves and lamps. Another method of blackening objects is to place them on house rafters, above the fire, so that the layers of carbon from wood smoke adhere to their surfaces. Mendi shields were treated this way to give them an undercoat of black before other paints were applied (Ryan, 1961). He also found that the sap from *Coleus* sp. was sometimes used as a fixative with charcoal for painting shields.

Biological Pigments

Plant Dyes

The main plant dye used among the Mendi is the purplish-blue sap from *yanolam* (*Coleus* sp.), also cultivated as a food crop and decorative plant. Mendi women use it to colour fibre bags, aprons and head coverings. Only the mature stems and leaves that are purple in colour are collected for dye preparation; this selective picking allows new shoots to continue growing, the plant being highly valued as a leafy vegetable. The outer leaves are discarded, leaving only stems and leaf-petioles for further use. They are then steamed to facilitate dye extraction by placing into the hot ashes.

Lengths of twine (made from the inner bark fibres of *Ficus* sp and other species) are held taut ï one end tied to a toe or knee, the other end held by the left hand. The free (right) hand takes the steamed coleus stems, wiping them other along the length of the twine, top and bottom surfaces, similar to the process shown in Figure 41. This is repeated along the length of the remaining twine to be dyed. Lengths of twine are also left undyed, and some have possum fur rolled into the twine, which will create a striped effect. Within a few days of exposure to sunlight, the blue or purple dye fades to brown, the colour which remains thus throughout the lifespan of the *bilum*. For important ceremonies, men's aprons and caps are newly constructed in order to be viewed in their full glory, so that the deep purplish-blue coloured stripes stand out in contrast against the buff undyed segments and those containing white possum hair.

Figure 39 **Dyes on Mendi fibre bags**

Purplish-blue *Coleus* dye on Mendi fibre bag (*bilum*). Photo: author

Faded *Coleus* dye on Mendi *bilum*. Photo: author

Plant colourants are also acquired from two sources of berry fruit: red from *sabul* (*Ardisia squarrosa*), and blue form *ngoro* (*Pittosporum pulleifolium*). Cross-culturally, the latter is also found among the Namai people of Chimbu Province, who use it as a blue dye for *bilum* threads (Hide, 1979).

Both *sabul* and *ngoro* berries are used as Mendi face paints. Extraction involves macerating between the palms until the skin splits and the coloured pulp released. The solid residues (skins and seeds) are picked out and discarded; the pulp is then wiped directly on to the facial skin. No medium is required with this type of paint for the pulp is already of a desirable consistency, dries quickly and adheres well. Although ochres are the preferred choice of colorant for formal festival decoration, vegetable paints are often sought for temporary or informal face painting.

Figure 40

Berries of *Ardisia* sp used as Mendi woman's face paint

Figure 41

South Fore woman dyeing bilum twine with *Begonia* leaves and ash Photo: author

Blood

The principal colouring agent in blood is haemoglobin, a red complex iron-based protein, which is unstable to light turning brown. The use of blood as a colourant is partly symbolic, but it does have practical applications - when mixed with red ochre, the

platelets provide a binding mechanism, helping fix the ochre to the stone.

The Mendi use blood from freshly slaughtered sacrificial pigs, pigs applied alone or in combination with red ochre, to paint the most sacred of objects such as stones, posts and healing sticks. The pigs are killed by blows to the head with a blunt instrument such as a stone. Their throats are slit and the gushing blood is caught in a container. Mendi sacred posts and healing sticks are usually painted first with red ochre mixed with water then the pig's blood is capsized over the ochre. For painting smaller areas, such as *kepel* stones, the blood is mixed first with ochre to form a thick paste, and is then applied using fingers.

SULKA PAINTS

There is less availability of earth ochres in the south coast of East New Britain than in the Southern Highlands; nevertheless, they were once highly sought after by the Sulka, particularly red, which was acquired from the distant interior, to the west. Neither yellow nor blue earths are found in the vicinity. White clay, soft limestone and a rare green mineral pigment are present in Wide Bay, requiring much time and effort to locate. The Sulka employed a large number of plants in the manufacture of their paints as both pigments and media.

Mineral Pigments

Red

In the past, red ochre was employed by the Sulka as paint for wooden artifacts such as *matpil* posts, canoes and shields. No suitable sources of red ochre occurred in Wide Bay, so it had to be traded in from the Mamusi and Mengen areas to the interior, southwest of Sulka territory (Panoff 1969). Sulka informants from Kilalum Village maintain that good quality supplies of red ochre were four days walk away, eight days return, a journey which would be carried out very infrequently. The Mengen in turn obtained a portion of their red ochre supplies from the Mamusi, who charged them a óstring of *tali* [shell money] 15 to 20 inches long for a loaf [of red ochre] 10 inches in length and 6 to 8 inches in diameterô (Panoff, 1969:14). The price the Sulka paid the Mengen for red ochre is not known, but may have exceeded that paid by the Mengen to the Mamusi.

Sulka informants from Guma and Kilalum villages talked of excursions into the Mengen region to obtain red ochre being like pilgrimages and of several days' duration (Hill 1986). Only initiated men could undertake the lengthy journey and there were several hazards to overcome along the way. The fact that they walked instead of using canoe transport suggests they obtained it from the inland óbush Mengenô rather than coastal Mengen groups (see map in Figure 4).

Red ochre also had significant ritual associations and features in Sulka oral history, but has not been acquired for many years, its use having been replaced by plant pigments or trade store paints. Consequently, no samples of this type of red ochre could be obtained for mineralogical analysis. For artifacts not requiring paints of colour permanency, a wide

variety of plant sources were and still are available. An orangey-red clay, Munsell value 10YR7/12, occurs in the Wide Bay area but is considered the wrong hue for use on artifacts, this may be, as suggested in Chapter 4, because they favour more crimson reds. It is sometimes used as body paint for women during mourning and is consumed as a health tonic (see Chapter 8). Samples tested were found to contain the following minerals: kaolinite, goethite, haematite, quartz and K-feldspars (refer to Table 6).

Figure 42

Sulka woman digging orange clay from under limestone outcrop. Photo: author

Figure 43

Lime powder made from baked coral (left) *Acropa* sp. Photo: author

White

White (*kas*) occurs in most Sulka designs on artifacts as well as in self-decoration and is the principal colour used in mourning. For this reason, a range of substances have been exploited for use in the manufacture of white paint. White clay, known in Sulka as *kugor*, was once abundant in creek beds throughout the coastal region of Wide Bay. At the time of my research in the Guma area, it was still being used by as paint for wooden objects by older men who had retained dried supplies of it from the past. Younger men were not actively seeking new sources, however, preferring to use lime powder (Figure 43) or white school chalk, sometimes available at the mission shop.

I was told that supplies of white clay are unreliable, often getting scoured out or discoloured by increased water run-off during the two wet seasons (Hill 1986). When collecting samples, locating clay of the right colour indeed proved difficult. In February 1986, just after the wet season, myself and two Sulka guides, searched for two days (with

many creek-beds examined and rocks upturned) before finding suitable supplies. A white clay was eventually seen beneath layers of darker mud, but had been contaminated with organic matter and had to be prised out using a wide stick, with care not to mix the layers.

Initially the clay is very wet and sticky and difficult to manipulate, so the excess water must be squeezed out. In former times, it would have been gathered en masse, then patted into spheres and wrapped into suitably-sized strong leaves for transportation back to the village, where it would be separated into smaller clumps, then laid out to dry in the sun. Upon drying, the clay starts to crack it, needing to be pressed again into smaller cakes. When totally dry, the clay becomes very hard so needs to be rewetted before use as paint.

Figure 44 **White Mineral Paints**

a 

Weathered limestone bolder from which white pigment *plak* obtained. Photo: author

b 

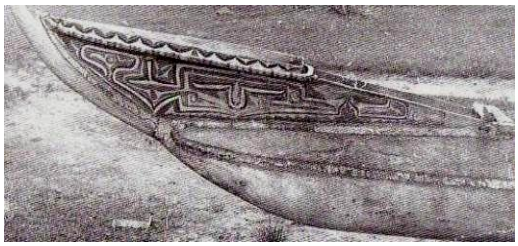
Powder from white pigment *plak* being scraped into coconut shell. Photo: author

Another white mineral paint is a soft, powdery limestone called *plak* (Fig 44); it is whiter in hue than the clay and was generally preferred for its colour and smoothness. The whereabouts of its source was known to only two older Sulka men and was reputed to be located deep in the primary rain forest in the mountains to the west, below an uplifted limestone escarpment. At the time of my research, two older Sulka men still used *plak*, owning pieces they collected years ago, stored in tobacco tins. *Plak* was the main white paint used on shields, and because of this took on a sacred quality. The fact that is was difficult to obtain added to its mysterious qualities.

To make the pigment, the stone is sliced open (Figure 45a) and scrapings are taken from the clean cross-section (Figure 45b); these are mixed then ground down to a powder with a stick or knife. From then on, whether dried white clay or powdered limestone, the

preparation is the same: the pigment is put in a suitable receptacle (such as a tobacco tin, halved mollusc or halved coconut shell) and mixed with water, saliva or plant sap, for example sugar cane juice, and used to paint wooden structure, such as shields sculptures, canoes and house posts.

Figure 45 **Paintwork on Canoes**



(a) Part of Sulka *mon* canoe, from Museum fur Vokerkunde photo archives. (source: Corbin 1990:82)

(b) Painting undercoat of lime powder & sugar cane juice on modern canoe, 1986. Photo: author

(c) part of canoe prow, Basel Museum No 28176. Photo: author

White pigment and sugar cane juice (which has ritual connections) was applied to large war canoes as an under coat; chemically, the sugar (sucrose) functions as a binder. Canoe painting was blessed and with a sung charm, using *ksikie* leaves (*Syzigium* sp.) or chewed ginger root, which protected the vessel from sinking. Canoes, and the art associated with them, are an aspect of Sulka culture not fully explored in this thesis, as they have no exact parallels in Mendi culture, but the reverence associated with canoe painting, shows paralells with the blessing of Mendi *kepel* stones.

Most of the white paint used today by the Sulka is derived from commercial supplies of lime powder, used mainly for chewing with betelnut. Small quantities are sometimes made from local coral, *kam'ngal* (*Aropa* sp.), an abundant reef-dwelling species in coastal waters (Figure 43). Young men dive down breaking off large branches of it, returning to shore when they have obtained enough. The coral is then stacked on a bonfire and baked, by which process calcium carbonate is converted to calcium hydroxide (slaked lime). Firing temperatures are too low for complete oxidation of the carbonate, so the lime powder contains admixtures calcium carbonate and lime, giving it great versatility for use as a white pigment, a dye mordant and paint base.

Lime powder is not as successful a pigment as white clay or ground limestone as far greater quantities of it are needed to achieve an opaque layer. As with clay or limestone, various binding media can be used: sugar-cane juice, water, saliva, or the sap of *mallet* (*Cissus* sp). Because its chemical constituents have differing solubility, some areas of paint remain translucent, requiring a second coat. It is often used as a dry pigment, particularly for body decoration, or placing inside engraved designs (Fig 29).

Green

The green earth, obtained in the vicinity of the Sulka-inhabited parts of East New Britain is called *matom*. Neighbouring peoples, the Tumoip and Mengen, used a similar green earth from sources available to them in their respective localities. Some pale green earths from PNG are clay-based and, like white clays, are often located in creek beds. Their colouring is due to the absence of iron oxides (which were leached out) and the presence of green minerals (Hughes 1977). No samples were obtained from New Britain, but green earths collected by me from the Eastern Highlands, were found to contain: halloysite, chlorite, illite and feldspars (Hill 1986). The latter three minerals can be green in colouration (Cox, Price and Hart 1974).

Figure 46 **Sources of Green Earth**

(a) South Fore woman digging green earth from creek. Photo: author

(b) Sulka man showing source of green earth in rock pool. Photo: author

Information about reserves of green earth in Wide Bay was both scanty and conflicting. Some informants suggested it was rare and had been traded, while others claimed it had been abundant and easily found. Men from Guma village used to obtain theirs in the mountain creeks that fed the Rivers Kilalum and Iwai. Paul Anis from Kilalum

village suggested the last known supplies had been found in rock pool sediments (Fig 45b) located 3 kilometres behind Kilalum. Upon visiting with Sulka assistants, I found the pool (fed by a small waterfall running down a limestone face) dirty with sediments yielding dark grey matter, not green. The presence of secondary regrowth above the escarpment suggests earlier land clearance of what was once primary forest; this may have affected water percolation and thus changed the composition of the sediments.

In the past, collection of green earth was similar way to white clay, involving squeezing, rolling into pats and transporting in leaves, followed by sun-baking. In the past, as a rare and valued commodity, supplies were stored in the men's house to protect them from theft, and also from contact with women. When required for painting, the earth was pulverised and mixed with a binder, such as the latex-like sap from a fig fruit, *poranpun,* (*Ficus* sp.). *Matom* paint was normally applied to artifacts made from timber or bark, such as shields, house posts and mask-componants. Painting these ceremonial objects involved much secrecy and distance from women to minimise contamination by menstrual blood, thought to weaken the effects of paint.

Mineral Black

The only mineral black used by the Sulka is *ket*, was in the form of dark brown or dark grey clay, rich in manganese and iron oxides. It was not used to colour artifacts, but as a permanent black stain or glaze for men's teeth at the final stage of male initiation. All the Sulka supplies came from the Tmoip peoples ôliving at the headwaters of Beg-Beg riverô (M. Panoff, 1969:13) who also supplied it to the Mengen. ôA loaf of manganese earth 15 inches long by 6 inches in diameter was usually exchanged for a string of *tali* (shell necklace) 15 to 20 inches in lengthô (M. Panoff, 1969:13) and was enough to blacken the teeth of men from several villages. To release the manganese oxide it had to be heated to temperatures around 700c and was applied to teeth while molten, so the pain endured by the men must have been considerable. Details of the ceremony accompanying *ket* application are found in Chapter 7.

Carbon Blacks

Because they were applied to masks, shields and other ceremonial items, making and using the carbon black paints is the domain of Sulka men. The carbon is obtained by charring the oils or resins from a number of possible plant species. Oil-rich nuts: *kayep*

(*Canarium polyphylum* or *C. indicum), kokwein* (*Canarium* sp.), or *wankie* (*Aleurites molaccana*) were a popular source. For a more effective paint the carbon is mixed with resinous or oily saps of a similar range of plants. The milky sap from fruits, such as breadfruit (*Artocarpus altilis*) or bitter gourd (*Mormodica charanta*) could also be used as both a source of carbon, if burnt, or resinous fixatives when unburnt.

Relying only on fruits means supplies would be seasonal, so other plant parts were utilised, such as the resinous leaves of *rer* (*Calamus* spp) and *patelei* (*Cordyline fruticosa*), and the barks of *rum* ï *Glochidion novoguineense* or *kwein* (*Acmena Montana*), which all make good carbon black. These species are easily accessible, growing in the low-lying coastal terrain near the villages; an important factor, given that, before matches, fire embers from the menôs house were used to ignite the plant materials.

Figure 47 **Carbon Black Paint (Sulka)**

a. Nuts from *Canarium indicum*
Source: www.traditionaltree.org

b. A masticated bolus of black paint made from burnt *kayep* (*Canarium* spp) in shell container

To prepare black paint, the parts to be burnt (nuts, leaves, or bark pieces) are placed in an empty clam shell and set alight. When they stop smoking, the soot is gathered up using a stick, then placed on a piece of *Glochidion* bark (or cordyline leaf), wrapped into a small parcel, and chewed for several minutes, gathering saliva which forms a viscous medium for the carbon particles. Mastication breaks up the charcoal fragments, extracts the resins from the bark or leaf, and provides an extra wetting agent (saliva) in one action. Through careful tongue action, the solid and liquid components are separated - the liquid part spat back into the shell and the solid fibrous mass discarded. This process is repeated until all the burnt residue has been used up. This method was adequate for producing the small amounts of

black needed to draw the fine lines in designs on pith masks or timber shields, each man making his own.

Biological Paints

Of the mineral paints, only carbon blacks were fluid enough to colour soft, absorbant materials, such as pith masks. Earth paints, having a grittier texture, abrade pith surfaces and do not bind well. Suitability for use on masks is another reason why so many organic paints were developed (Table 7). With the exception of human blood, all the organic pigments are plant dyes. Some have exclusive ceremonial use on sacred masks, others were more ubiquitous. To understand better the social implications, they are discussed under their colour and function.

Blood for Masks

In traditional times, the red paint for decorating Sulka *hemlaut* masks was acquired from blood, *gidiel*, not pig's blood, but that from the tongues of important initiated men. The right to donate blood for decorating this most sacred mask was considered the ultimate honour and reserved for only those men who had attained high rank in Sulka society. Once a mask was manufactured and ready for painting, the men cut the undersides of their tongues with a hairy grass, spitting the blood and saliva into a receptacle. This was immediately applied to the pith with a brush made from *Areca* nut husks. All this took place in the secrecy of a mask house (*a'vereri*) away from the village.

Because blood red fades quickly, the painting was implemented just before the masks were paraded through the village to the dance-ground., so they would be seen at their brightest. Masks were destroyed immediately after the ceremony, so dulling of the colours was never witnessed by the uninitiated.

The neighbouring people Baining people also made paint by this method until the late 1950s, ácusing blood and spittle ... the tongue is first cut with a sharp edged grass [a *jirkuainga*] or leaf of a treeô (Hesse, 1982:47). Whether the Catholic missionaries in East New Britain curbed its use is not clear; no Sulka man alive in 1986 had made paint that way, but some older men remembered their fathers doing so.

Red Plant Pigments for Masks

Apart from blood, there were a few botanical sources of red for masks made by men who were not eligible to donate their tongue blood; these were barks from *ham* (*Mammea* sp) or *kayep* (*Canarium indicum*), leaves of *wahei* (*Coleus sp*) and or fruit of another *wahei (Areca catechu,* betelnut). Regarding the latter two ï Sulka informants acknowledged them as anatomically distinct, but classified them with the same nomenclature. The common feature to both *wahei* plants is they yield a bright red dye, so the name probably derives from the colour. For ease of reference during collection, informants called them *wahei* I and *wahei* II. The fruit of betel nut when chewed with lime powder produces a bright red colour; its main status now is as a stimulant and face paint, but is occasionally used on artifacts when commercial sources are unavailable.

TABLE 7 SUMMARY OF SULKA PAINTS FROM BOTANICAL SOURCES

Colour	Plant and part used	Sulka Name of plant	Sulka Use	Pigment type
RED	*Solanum* sp berries	*Yiyi [gigi]*	to colour string for bags	
	Bixa orellana fruit pulp	*Kamili*	used as face paints and for designs on dance ornaments	Bixin (carotenoid)
	Coleus sp leaves & stem		with lemon or other acidic saps for paint on masks	Coleone & anthocyanin
	Mammea sp - bark	*ham*	red paint for masks and shields	anthocyanidin (flavonoid)
	Canarium indicum- sap from bark	*kayep*	mixed with lime to make red paint for masks and dance ornaments	anthocyanin
	(*Glochidion c.f. ramiflorum*) bark	*manharpet*	chewed with lime to make red dye for fibre bags	tannin
	(*Areca catechu*)	*wahei (betel)*	chewed with lime as red dye for masks	acalyphin (tannin), catechu
BLACK/ BROWN	*Cyclandophora laurina* ï fruit pulp	*molus*	black paint for barkcloth	
WHITE / PALE GREY	(*Aglaia brassii*) sap from stem	*ngolul*	milky sap used as white paint on skin	
	Dendrobium sp. sap from stem	*ngairish*	milky sap from stem used as body paint	
YELLOW	*Cyperus cyperoides* leaves	*sap*	yellow facepaint	quinone
	Garcinia dubia bark	*klong*	bark masticated with lime to get yellow paint for dance ornaments	gamboge
	Mangifgera indica, leaves	*ngaip (*mango)	leaves masticated with lime, paint for masks, dance ornaments	mangiferin (flavonoid)

YELLOW cont'd	*Curcuma domestica* tuber	*wolia*	– used on faces, dance ornaments; either with lime or alone	curcumin (carotenoids)
	Graptophylum pictum fruit	*Horhul*	berries crushed to make yellow face paint	
	Merremia peltata leaves	*kamye*	leaves crushed with lime to make yellow face paint	
	Secamore insularis	*popnal*	leaves crushed with lime to make yellow face paint	
	Delphyodon sp.	*spang*	sap with lime makes yellow paint for self-decoration & dance ornaments	
	Cinnamomon solomonense,	*tang*	yellow-orange with lime, face paint	tannin
	Euphorbia hirta	*tumrek*	yellow when mixed with lime - face paint	
GREEN	(*Saurauia conferta*) leaves	*salek*	Green paint in self decoration	flavonoid
	Coleus sp Shoot/leaves	*twok*	– paint for masks, shields, dance ornaments	Coleone & anthocyanin
	Mallotus phillipensis leaves	*monglop*	Face paint	rotlerin
	(*Cordyline* sp.) leaves	*So'ur*	green face paint	
	Medinilla crassinervis leaves	(**vlengi**)	green face paint	chlorophyl
BLUE	*Leea indica* Berries		ï face paint and blue dye for *bilums*	anthocyanin
	(*Phyllanthus c.f. cuscutiflorus*) Berries	*kerker*	blue dye for *bilums*	

Because of the spectacular magenta obtained from *wahei* II (*Coleus* sp), resembling blood more than others, it became the predominant colourant on their masks. The colour was achieved using a mixture of other plant saps which functioned as mordants: *malet* (*Cissus* sp.), *popnal* (*Secamore c.f. insularis*) and *sap* (*Cyperus cyperoides*). When combined these saps produce an acidic medium which turns the *Coleus* dye from dull bluey-purple to magenta (Fig 48). Of these ingredients, *malet* was the most difficult to locate, growing in the far reaches of the secondary forest.

Production methods for botanical paints were basic, time consuming and output was small; recipes were very exacting, following a precise order. First *Coleus* stems were chewed spat into a container; meanwhile to extract the sap of *malet* a section of *cut* stem was inserted in the mouth and the sap blown forcibly down to mix with the *Coleus* pigment (Figure 49b). The remaining ingredients *sap* and *popnal* leaves, were chewed and spat into the container, then stirred with the rest, with a traditional style of brush. Such brushes are

still made today from the soft, splayed ends of young cordyline stems; they hold paint well and do not damage the soft ptih surface of masks. Though ulimately fugitive to light, the mordanted *Coleus* dyes allowed for a longer working time than blood or betelnut; long enough for delivery of the masks to the dance ground, carrying out the performance and then the final distruction.

The use of traditional red (and green) dye plants in mask-making has largely ceased, especially in those areas close to trade stores where brighter, more stable colours can be obtained from commercial supplies: i.e. acrylic paints, water-colours, black-board chalks and felt-tipped pens. The labour intensive manmufacturing method for *Coleus* plants dyes may also have been a prohibitive factor. In more remote areas where commercial paints cannot be obtained, some natural paints are still utilised; those for black, white and yellow, in particular.

Figure 48 **Red Coleus Dye Used to Paint masks**

a. Leaves of *Coleus* mixed with various saps. Photo: author

b. Painting masks with *Coleus* dye, Guma 1982. Photo: author

Contrastingly, the structural components of masks are still made of those natural plant components which were used traditionally, and the same degree of respect and secrecy is adhered to while mask manufacture is taking place. Hidden away in the mask-house, mask construction and painting are sacred endeavours, presided over with great reverence; they must not be seen or handled by the uninitiated. Even when acrylic paints are employed there is great secrecy during the painting stages.

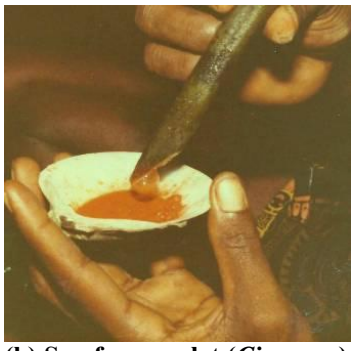
Green Plant Dyes on Masks

Perhaps as a result of experimentation with mordants, or because they acquired Ausronesian techniques, the Sulka also employed another species of *Coleus* (*twok* in Sulka) used with lime powder to make the green paint for masks. In life, the coleus used to make green has maroon leaves, while that employed for red (*wahei*) has variegated leaves; samples of these were not indentified beyond genus level, but they are probably both varieties of *Coleus schelluteroides* (Frodin pers comm 1986).

As among the Mendi, many species of *Coleus* are cultivated: the Sulka use them as decorative plants near houses. Though Sulka women tend them they do not use them for dyes, and are unaware of their use in mask manufacture. To make the green from *Coleus,* the purple leaves are masticated and spat into a halved coconut shell, to which lime is added; the latter being alkaline, turns the mixture from bluish-purple to pale blue, then milky-green. The green paint from *twok* was used in former times to colour the pith of masks, as well as *rei* dance ornaments. The presence of lime gives a paste-like texture, so *twok* dye could also be used as paint on wooden shields, when green earth was scarce.

Figure 49 **Stages in preparation of red paints from *Morinda citrifolia***

(a) Yellow inner root bark of *nun* (*Morinda citrifolia*). Photo: author



(b) Sap form malet (*Cissus* sp) blown out through stem. Photo: author

(c) Dye from *Morinda citrifolia* mixed with lime. Photo author

Plant Pigments on Menôs loin cloths

The paints for menôs aprons were prepared by them, as was the barkcloth. The red colourant derives from a coastal tree, *nun* (*Morinda citrifolia*), which has wide cross-cultural usage in Asia and the Pacific. To prepare it, sections from exposed aerial roots of were cut out (Figure 49a) stripped of their outer bark, then masticated to soften the woody tissues and liberate the dye. The sap of *malet* (*Cissus* sp), Figure 49b, was added to increase

the liquid component and act as a fixative. Lime powder was then mixed in, turning the dye from yellow to red (Figure 49c), owing to its alkaline pH. Some informants said that it could be used without lime to create yellow areas in the design.

The name and use of this plant, *nun* in Sulka, shows the cultural connections to other Austronesian-speakers in PNG and in Polynesia: the Ponam people of Manus Province call it *noi,* using it for menôs aprons (Hill 1986), Hawaiians call it *noni* and use it as a red dye for barkcloth, Tahitians prepare it as a yellow dye known as *nono*.

Some of the dark shiny black paint on loincloths is carbon black, as desribed earlier; another source was the fruit of *molus* (*Cyclandophora laurina*), Figure 50. Once extruded, the viscous, pink pulp of this fruit dries to dark brown on exposure to air, continuing to darken till black. Being resinous and very sticky it adheres well to any surface and is ideal as paint and caulking material. The painting of the cloth is ritually significant; there are different terms for the unpainted stage (*kalei*) and the painted stage (*kapirim*).

Figure 50 **Black paint for Sulka men's loincloths**

a. Sulka man with fruit of *molus* - *Cyclandophora laurina*

Photo: author

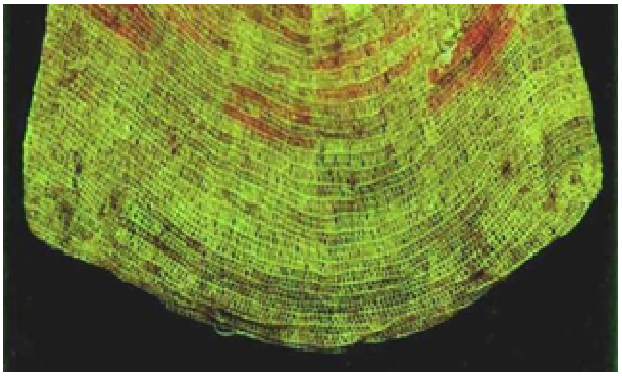
b. Model of angels round a crib made for a Christmas mask in 1982, showing halo, nose pin, loincloth and blackened teeth – a combination of traditional and Christian symbols. Photo: B. Craig

Reds and Blues for Fibre Bags (*bilums*)

Sulka women made and dyed string bags (*bilums*) and the colourants used were exclusive to them. It can be seen from specimens in museums these dyes are fairly light stable, however, they were never used by men to colour masks or loincloths. Red was obtained from the mixing of *yiyi* (*Solanum* sp.) berries with the flowers of *ksienap* (*Ficus* sp.) which were steamed together, crushed then wiped directly on to the *bilum* twine. Only

one old Sulka woman (aged in her early 70s) remembered this dye recipe but was unable to demonstrate its preparation. Sulka women stopped making *bilums* sometime ago and now used *Pandanus* leaf baskets; their inland neighbours, the Tumoip, still make them.

Figure 51 **Dyes for Sulka *bilums***



Fibre bag, with red and blue plant dyes, made by a Tumoip woman, owned by a Sulka woman. Photo: author

Berries of *Leea indica*, used to dye bilums in the past. Photo credit: http://flickrhivemind.net

The best known source of blue is *mat* (*Leea indica*), a small tree bearing bluish-black berries (when ripe); it is still used as paint for womenôs faces and womenôs dance ornaments. The other is the other is *kerker* (*Phyllanthus c.f. cuscutiflorus*). The following recipe is the same for both source plants. The berries were harvested when ripe, soft and deepest in colour; they were then crushed using a blunt stick and the skins separated. No mordants or media were used, the pulp being applied to the twine using fingers (as in Figure 41) or using a soft stem-brush.

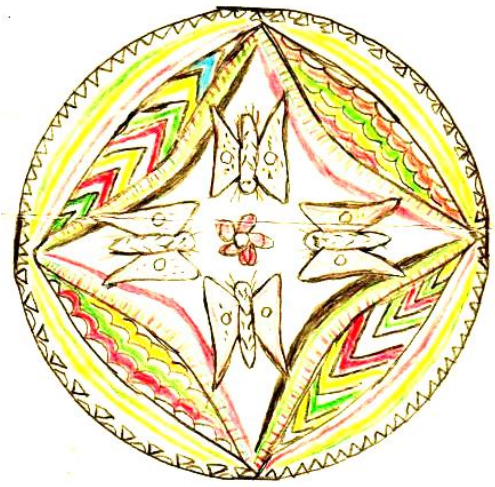
Yellow Plant Dyes for Self-Decoration and dance ornaments

Traditionally yellow did not feature much in mask art. The complete absence of yellow ochre in the region may account for its non-appearance in shield designs and on other wooden objects, where mostly mineral paints were employed. In recent times yellow has gained a more prominent place, for example in self-decoration and on dance ornaments, and is now appearing in mask designs (Figure 52).

A large number of plant sources have been deployed to make yellow dyes (Table 7), some still in use today; they are used by both men and women, and do not have the gender taboos that are associated with other colours, perhaps because they were not part of the original colour code used on masks. The yellow most commonly used by the Sulka is from

the root of *wolia* (*Curcuma domestica*), Figure 53, a member of the ginger family, used to colour softwood dance ornaments made from a soft pale timber (*Alstonia scolaris*). To prepare it, women chopped the roots into pieces, rubbing their cut ends on to the dance ornaments.

Figure 52



Design (pencil on paper) for new mask by Gabriel Langmark, (1986), showing prominence of yellow. Photo: author

Figure 53

Woman preparing wolia (Curcuma domestica) for use as yellow paint on dance ornaments Photo: author

The *Curcuma* root pigment can be made into a deeper orange colour by the addition of lime powder ; the colour of the dye chemical, *curcumin*, changes in alkaline media. When men use *Curcuma* they often add lime, but women normally use it without.

Another prominent yellow dye used by the Sulka which has wide cross-cultural usage in the Pacific and South-East Asia, is *ngaip,* (*Mangifgera indica,* mango). To prepare it, handfuls of leaves are masticated with lime and spat into a container or they may be pulverised together in a deep receptacle using a blunt stick. The yellowy-orange paint obtained is used for decorating masks and dance ornaments; it can also be applied as face paint.

A variety of leafy herbs and shrubs are employed to make yellows for slef-decoration, e.g. *Euphorbia hirta*, *Merremia peltata* and *Secamore insularis* (Table 7). From these young shoots are rubbed between the palms of the hands with lime powder and wiped across the face and /or upper body.

Discussion

From the information provided in this chapter, it can be seen that the Mendi utilized mainly mineral pigments, while the Sulka drew mainly from botanical resources to attain their desired colours (they once employed over 30 plants in the manufacture of colourants). The different emphasis in choice of source material is partly accounted for by the diverse environments the two groups inhabit; sub-tropical montane forest and grassland, versus tropical lower mountain forest. The Mendi have access to good supplies of ochres, while in Sulka territory, availability of ochres has been sporadic and unreliable.

The diverging usage of *Coleus* as a source of paint is interesting: among the Mendi, *Coleus* is a womanôs dye plant, providing the blue on both man and womenôs fibrous artifacts, while among the Sulka was entirely in the manôs domain with strict prohibitions controlling its use. From the source materials and preparation techniques it can be seen there are not only differences between the Mendi and Sulka language groups but between the genders within each group. These divergencies will be explained more fully in Chapter 9.

CHAPTER 7

PAINTS, ADORNMENT AND CEREMONY

Introduction

This chapter explores some of the key ceremonial activities for which painted decoration takes place. Among the Mendi and Sulka paints have a significant place in adornment for marriage, courting parties, initiation, funerals, mortuary festivals and other celebrations which involve inter-group participation. Paints for these functions are applied both directly on to skin, hair, apparel and dancing accessories.

Among the Sulka, self-decoration styles changed early on in the 19th century, with the arrival of European traders and missionaries (Jeudy-Ballini 1988); after this Sulka creativity focused on masks and dance accessories. By 1986, there were only a handful of elderly men and women alive with knowledge of early body painting styles.

In the Mendi area, ceremonial styles are also changing; new modes have begun to be imported from the west (Hagen area) and the north (Huli area). With easier access to non-traditional colours, such as powder and acrylic paints, the palette has been significantly expanded.

MENDI

Paints in Coming-of-age ceremonies

As Mendi children are growing up they participate in a range of ceremonies for which they dress up, which are usually smaller versions of their parentsô attire. In traditional times, this sometimes involved more permanent body decoration, such as ear ornaments and nose pins. For nose-piercing, the hole in the septum is opened by introducing the sharpened point of a wooden pin, followed by larger sticks until wide enough for the permanent ornament, a cassowary quill or piece of cane (Sillitoe and Sillitoe, 2009). Mendi nose-piercing is without attendant ceremony unlike among the Sulka, when masks are danced.

An important item of apparel marking maturation, is a triangular-shaped arm-band (*sekip*) given by close kin to the son of an important man (*ol koma*) along with pearl-shells, at a small ceremony in his honour (Hill 1986). Woven from split cane and painted with charcoal and pig grease, the *sekip* is recognised as a badge of status and will continue to be worn into adulthood (Mawe 1985:30)

Mendi children are encouraged to play an active role in exchange ceremonies and are provided with small items of wealth with which they can later carry out simple exchanges, such as small items of clothing, beads, mirrors and feathers (Ryan, 1961).

Paints for Courtship

Mendi girls are considered of marriageable age by mid-teens; men - late teens to early twenties and even up to thirty. Encounters between unrelated youths may only occur during large inter-clan ceremonies; ‘at formal ceremonies the marriageable youth are often on display, made attractive by cosmetic application of oil and paints’ (Brown, 1978:157). Sometimes special courting parties (known in Pidgin as *turnim-hed*) were arranged to coincide with major festivals, so young peers could gather together in one house and get to know each other; chaperones were also present. Boys sat around in a circle singing specially practised songs; one song recorded by Sillitoe makes reference to ‘new gardens in which a wife-to-be will cultivate crops’ (Sillitoe and Sillitoe, 2009:39). Each girl sat next to a chosen partner, their heads turning in unison. Both men and women used love magic, which involved bespelling the face-paint before putting it on, to encourage on-lookers to focus on them (Mawe 1991:46, Hill 1986).

Painted designs are less formalised for courtship than other festivals - girls use stripes, dots or other geometric patterns; paints for courting girls were earth ochres, supplied by their brothers (Ryan, 1961). They also prepared their own paint from plant sources, e.g. crushed tree berries, to attract potential boyfriends at casual meeting places.

Men’s courtship decoration comprised black face paint with white on top, plus a few cassowary feathers in their hair. ‘The young men decorate their faces and heads with paint, leaves and feathers; their falsetto singing and waving of heads seem to imitate birds’ (Brown, 1979:157). When courting parties coincided with *mok ink* (pig feast), young men retained the bright paints and fine decorations they used during the day.

In recent times, courtship decoration for both men and women has become quite elaborate using brighter-coloured powder paints obtained from trade stores (Sillitoe 1988).

Paints for Marriage: Bridewealth Exchanges and Protection Magic

Paint forms part of the marriage decorations on brides, men’s ornaments and on gift pigs and pearl shells; it also contributed to sex protection rituals performed before the

couple are fully united. Before any exchange ceremonies begin there must be formal agreement between the brideôs and groomôs families regarding the size of the bridewealth (Ryan 1961) This varies considerably; at the time Ryan did his research in 1959, the óaverage payment was 12 pearl-shells, 3 pigs and an unspecified number of minor itemsô (Ryan 1961:91). By the time Lederman did her research in the 1980s bridewealth had more than tripled (Lederman 1986), with the national currency (*kina*) also used. Today there are other contemporary forms of wealth given in addition, such as cash, cows, and cassowaries. To raise this amount of wealth groomsô families are assisted by close and more distant kin, strengthening relationships between them; the more who contribute óthe wider this cohesive effect is spreadô (Sillitoe, 1979:177).

Women

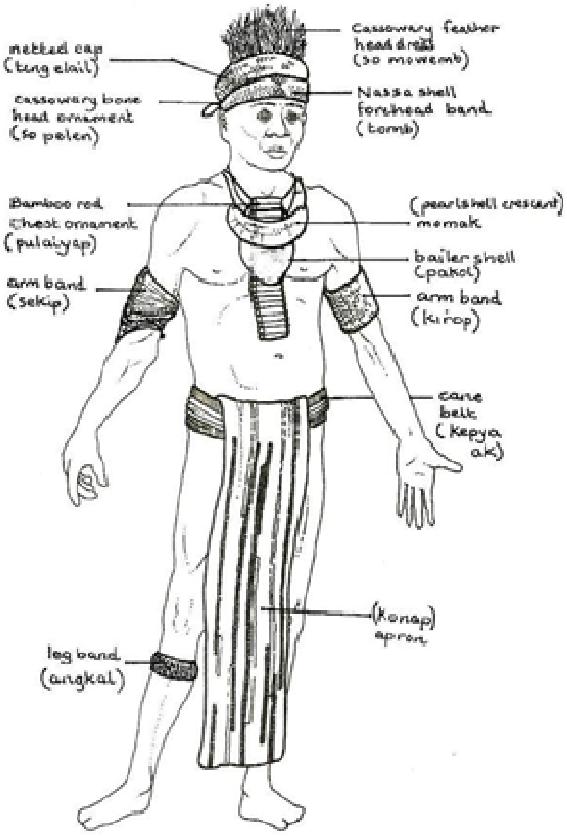
The bride dresses up for the final marriage exchange-ceremony, which involves delivery of all the pearlshells to her home, where they are displayed. Her male kinsmen present her with pigs; a feast follows, these same pigs are killed and pork is shared. For this she wears the head covering *tenk*, newly made for the occasion, along with a freshly prepared leaf skirt (*kurinj)* with woven chains hanging from a waist band to mid-thigh level (Figure 54a).

A long neck pendant, made from the hollowed-out fruits of *tulup menge* (*Laginaria* spp.) suspended from a long string, sits at waist level. Woven fibre arm and leg bands are also worn, for which the maker will obtain part of the bridewealth payment. She is painted in a shiny mixture of charcoal and oil, so that all her exposed skin and the surfaces of the ornaments are coloured black. ó The girl covered in a gleaming black mixture of palm oil and soot, wearing a bulky blackened veil stands in the midst of the bridal wealthô (Ryan, 1961:166).

Immediately after the ceremony, still wearing the black paint, the bride stays with her husband's family, learning her new role as wife. The marriage cannot be consummated for another month óuntil the bride's anointment has worn offô (Ryan, 1961:66). It must wear off naturally and not be washed, which takes about a month, marking the time in which marriage protection rites are carried out. Failure to comply would seriously jeopardise her husbandôs health.

Figure 54 **Bride and groom's dress for bridewealth exchange**

a. Mendi bride wearing black paint (after Crawford 1979)



b. Good quality clothing of Mendi man such as might be worn for marriage.

There were other occasions when women used black paint. At the end of a menstrual period, just prior to leaving the menstruation hut, women rubbed charcoal on their bellies. Women informants explained that this was performed to prevent them becoming pregnant too quickly (Hill 1986), perhaps suggesting that black paint served as a warning to men of her polluting condition, or in some way helped to de-pollute her. Black paint is also used in a consummation rite, known as *yeki sen***,** demonstrating a symbolic association with productiveness (Mawe 1985). For this, the groomôs semen is collected in a gourd together with charcoal; óthe resulting mixture is then poured over the head of the womanô (Mawe, 1985:80) while calling out to the female sky spirit, *yeki***,** associated with fertility and meteorological phenomena (Mawe 1991:43).

Men

For bridewealth exchanges, men wear good quality clothes with a few ornaments around the neck and chest (Figure 54b). They may oil their skin to look healthy but wear no

actual paint. Men always wear long aprons tied into a bark belt; for formal occasions, such as marriage clean, non-torn ones would be worn. Paint is not a pre-requisite for the groomôs face and body but it decorates certain ornaments - arm bands, forehead ornament, chest and back ornaments (Figure 54b).

While still residing at the menôs house, a groom is expected to prepare ôanti woman magicô (Ryan, 1961:95) to protect him against the dangers of sexual pollution, which would devour him. ôThis he acquires from his motherôs brotherô (Ryan, 1961:293), using the same charcoal and oil mixture as the woman used for the bridewealth decoration, applying it to his chest as a single stripe down the sternum (Sillitoe and Sillitoe, 2009). This takes place in front of the bride who speaks incantations involving comparisons between ôthe rotten stink of an unprotected man (and) his sound physique and sweet smell (once protected)ô (Sillitoe and Sillitoe 2009:77).

Paints for Mourning

Already touched on in Chapter 4 is the use of white paint in mourning. When a Mendi man dies, ôthe entire sub-clan of the deceased (goes) into mourning and seclusion for a monthô (Ryan, 1961:153); his wife/wives and close female relatives must observe strict rules and are not allowed to do any physical work such as gardening or cooking. The corpse is displayed in a public place so everyone can pay their respects.

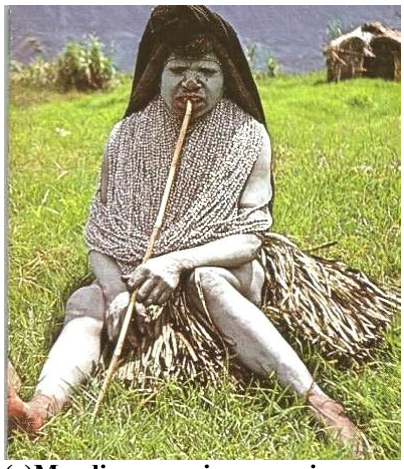
Women sit around the body performing a ritual wailing, expressing a ômixture of anguish and fearô (Sillitoe and Sillitoe, 2009: 11): sorrow for their loss and fear should the deceasedôs spirit becomes active. Mendi people believe that malevolent spirits arise from bodies after death and behave negatively against the living, especially towards close kin, causing sickness and death (Mawe, 1985). Pigs which are given to relatives of the deceased are also painted with dull white clay to perpetuate the expression of sorrow.

<u>Women</u>

Women closely affiliated to the deceased cover their entire bodies with white clay which will be left unwashed for several weeks, depending on their relationship. A wife is expected to keep the paint on for a minimum of four months; areas of paint which flake off are replaced. Female mourners are each responsible for their own body paint, which they obtain from river banks, rubbing it into their faces and bodies.

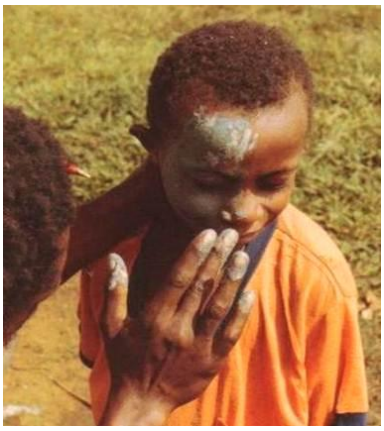
Special mourning apparel (Figure 55a) accompanies the women's clay mask: the large head covering (*tenk*); the leaf skirt (*kurinj*), made especially long for this occasion to cover more of the legs; and voluminous white chest ornament comprising rows and rows of threaded Job's-tear seeds, (*holo*) from *Coix lacryma-jobi* (Figures 14, 55a). These large, draping garments are intended to be cumbersome, rendering daily tasks impracticable. All apparel becomes smeared in the white paint and must be kept on for the duration of the mourning period.

Figure 55 **White paint used for mourning**



(a)**Mendi woman in mourning attire. Photo Credit: Crawford 1979.**

(b)Mendi man's mourning paint. Courtesy of Robert Brown and Associates.



(c) Man painting his brother's face for mourning. Photo credit: author

Men

Mendi men partaking in mourning rituals apply paint only to their faces, beards and hair coverings using the same white clay that women wear. Ash or orangey-yellow clay may also be used as an alternative, as it bears the same pale and matt qualities. Male mourners keep their paint only for the duration of the initial exchanges, not for an extended period.

These pale coloured clays are seen as dry, dull and ashen, like the skin of the dead person; mourners also talk of the paint ódrying up the skin é making it feel badô (Strathern and Strathern 1971:167). Dry skins are also associated with sickness; by wearing it people are exhibiting solidarity with the deceased, trying to nullify the vengefulness of his spirit (Sillitoe and Sillitoe 2009; OôHanlon 1983)

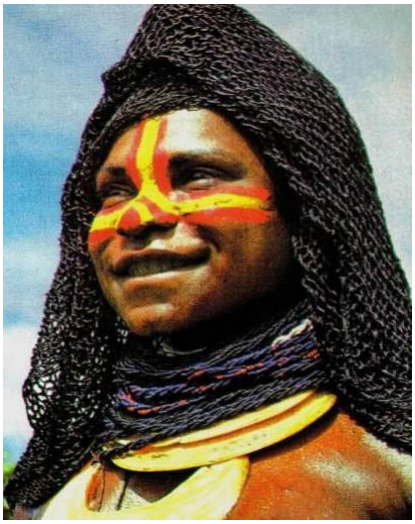
Paints for *Tas maike* Ceremonies

Maike (compensation) is a large ceremony, at which pigs (*tas*) constitute the major valuable used in the exchanges. It might follow on from the mourning and mortuary ceremonies, if the death was the result of a fight or suspected sorcery. Compensation or reparation might then be sought, by the relatives of the deceased, from the suspected perpetrators. Compensators are often asked for huge payments, involving scores of pigs and pearlshells which take years to accumulate, so are given in structured stages every few months, all close kin contributing to the total amount (Lederman 1986, Mawe 1985, Ryan 1961, Sillitoe 1979).

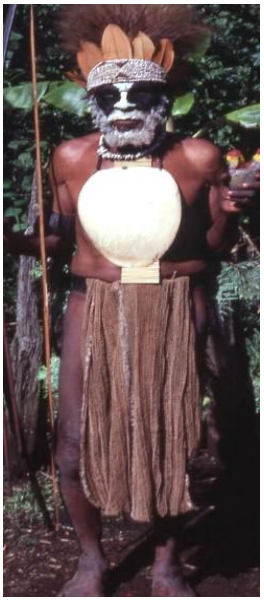
Womenôs Paint

Women, with their children, are only involved in the last stages of *tas maike,* for which the families of the deceased gather together at the compensatorsô dance-ground to receive the final payment. They wear a head net and long leaf skirt, with a little red and yellow paint on their faces (Figure 56a).

Figure 56 **Self-decoration Paints for *Tas Maike***



(a) Woman's face paint - late stage *tas maike*
Source: Crawford 1979



(b) Man's face paint - early stage *tais maike* Photo credit: author

Menôs Paint

For *tas maike* menôs adornment is important, becoming more elaborate with each advancing stage. At the commencement, when a down-payment is offered, men paint their

faces in black, with white placed over to accentuate nose, and forehead. White may also be rubbed into the beard to hide the natural hair. They wear low-key decorations, such as a headdress of black cassowary feathers (*so mowemb*) and leaves inserted into the netted cap (Figure 56b).

The first gifts given include "a few kina shells and one killed pig" (Mawe 1985:97). There follows a more formal ceremony at which pig-sides are lined up on wooden stands prior to distribution (Mawe 1985, Sillitoe and Sillitoe 2009). For this, men's decoration becomes more extensive, adding black paint to their bodies and white on the legs. It resembles the decoration used for warfare, denoting aggression rather than submission; sub-clan members dress fairly uniformly, acting together to present solidarity. Exceptions to this are influential men, who may add various status symbols to emphasise their wealth, e.g. *sekip* arm bands, large *momak* pearl shells.

The third stage takes place at the compensator's dance ground where "about 48 or 72 pigs ... are usually lined up in order from the biggest ending with the smallest" (Mawe, 1985:98). Kinsmen of the person killed dance around them before deciding whether to accept the payment. If the payment is acceptable the father of the deceased distributes them among affines. The final stage called *momak maike* involves pearl shells only (Mawe, 1985) which are painted red.

When compensation payments have not been met, or are considered too minimal, kinsmen of the dead person dress shabbily, covering their bodies in dull coloured clays or ash. Some men even dress and decorate themselves like women to cause shame (Sillitoe, *pers comm* 2011). They appear at other public festivals in this manner, dancing with undignified movements to publicly disgrace their adversaries; this demonstrates to onlookers they feel unworthy (O'Hanlon, 1983).

Paints for War

Unresolved disputes and unpaid compensation could eventually lead to armed conflict; opposing parties were usually individual clans or groups of allied clans (Ryan, 1961). War could wage for decades, with sporadic formal battles taking place when other forms of settlement broke down. Fighting on a major scale had virtually been eliminated by the 1950s, when outlawed by the Australian Administration (Ryan 1961).

Menôs Paint

The way warriors looked before and during battle was considered crucial to the outcome. Body and face paint was used to change menôs appearance, making them look both imposing and frightening. The upper torso was painted black using charcoal mixed with pig's grease or tree oil (*tigaso*), while shins, the only exposed part of the leg were coated with white clay. Faces were painted black upon which narrow lines of white underline the eyes or emphasise the nose and cheekbones (Figure 23) making the face look larger, more fearsome. All the other decorations are either black or white: the apron freshly blackened, camouflaged the lower body while a head-dress of black cassowary feathers enlarged the head area. White decorations, in the form of a pearl shell neck-ornament, *nassa* shell forehead-band and whitened cap, stand out in stark contrast with the black paint (Figure 57).

Figure 57 **Mendi Paint in Self Decoration: Warfare and *Mok Ink***

a. Mendi warriors showing paint on bodies and shields. Photo Credit: Gordon and Gotch

b. Men and women in full regalia for *mok ink*. Photo Credit: Crawford 1979

The juxtaposition of two opposite colours, black and white, is fearsome-looking, intending to have an intimidating effect on the enemy. The black paint disguises the wearer, makes him look strong, 'large and frighteningô (Strathern and Strathern, 1971:101). Glossy skins are associated with health and vigour, while dull skins possess weak and sickly

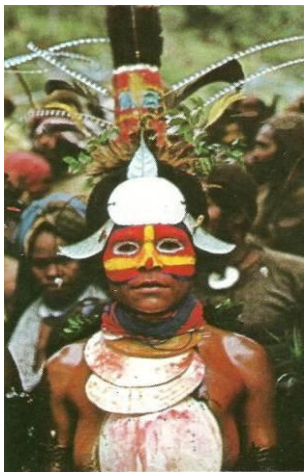
qualities. Having well-painted, shiny skins and fine ornaments boosted individual and group morale and helped warriors win; óif a clan's men appear é é poorly decorated when they emerge from the enclosure, spectators are said to advise them not to fight, as they would only loseô (O'Hanlon, 1983:319). The same criteria are used today to judge competing members of inter-group displays of wealth at pig feast (*mok ink*).

The accompanying shields functioned as extensions of the body, distorting size and shape; black usually formed the background colour, merging with the menôs body paint. The red and white designs on them compounded the illusion of danger; óskilful painters were recognized as fearsome warriorsô (Ryan, 1958:247).

Paints for *Mok Ink* (Pig Feast)

The lengthy ceremony of *mok ink* involves the entire clan-cluster; long houses (*sai anda*) are built by the host clans to accommodate all visitors. Wealth has to be accumulated and prepared; various stages mark degree of readiness, each of which is accompanied by music, dancing and people dressing in their finery (Ledeman 1986; Ryan 1961).

Figure 58 **Women's face painting styles for *Mok Ink***



Middle stage - red and yellow face paint, large bailers shell and the *so kuis* headdress

Late stage - red and yellow paint with the addition of white with blue spots

Women

For this women use bright coloured face paint (Fig 58); red predominating, with narrow bands of yellow and sometimes white on cheeks, nose and around the eyes. Bodies are oiled, without addition of charcoal. In the later stages, face decoration becomes more

elaborate; sometimes blue spots are added, though this is a fairly recent style. Cowrie, ochred-pearlshell and sometimes blue trade beads, are worn around the neck, with white bailer shells across the forehead and chest. Skirts are decorated with red *tanget* leaves (*Cordyline fruticosa*). At the culmination of *ink* women wear the *so kuis* head-dress, made of red bird-of-paradise feathers and red and blue parrot feathers.

Men

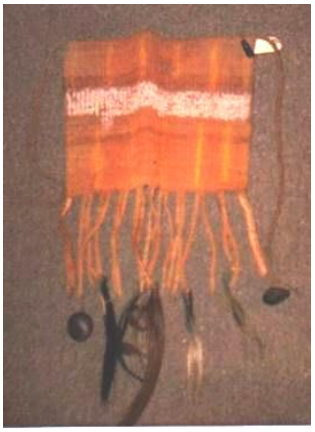
For men again is seen the increasing complexity of body ornamentation, becoming more intricate with each progressive phase, bright colours being added later. Appearance is very competitive ï visiting clans who dress more flamboyantly than their hosts signify they are ópreparing an *ink* of their own which is further advanced thané .their hostsô (Ryan, 1961:211). Men's face-painting for *ink* used to involve black as the predominant colour. Male hosts commence, performing a silent march **(***ink tomp***)**; they are only slightly decorated with óa little charcoal, some yellow (not red) face paint and cassowary plumesô (Ryan, 1961:211). This minimal ornamentation makes the statement that proceedings are just beginning; there is much more activity yet to come.

When the houses are complete another feast is held, for which host dancers add red bird-of-paradise feathers; their dancing involves a triumphant chant (Ryan, 1961). *Ink* hosts attend other groupôs festivals, such as other *ink* feasts or death compensation. At these they dress according to the advancement of their own *ink*, more flamboyantly with additional paint, as their *ink* preparations near completion. Stage three of *ink* marked the completion of carved house posts, *poranda,* (no longer made) when the hostsô paint is more elaborate still: bodies are blackened and oiled, faces painted in red and yellow stripes (Ryan 1961). The paint communicated their status (Figures 23, 57).

At the final stage, *sai le,* men adopt full ceremonial regalia adding several painted ornaments. New *konap* aprons, made by wives or sisters, are put on; these are best viewed when freshly dyed, with colour assemblages still bright A manôs social standing is óreflected by the length and evenness of the workmanship of this apronô (Pretty 1969:61). Wealthy men wear another style of apron, *konap,* a tightly woven fabric with tassels and suspended pigsô tails covering the thighs (Fig 59), indicating the number of pigs so far killed by the wearer, more tails being added as festivities progressed. The tails swish as the dancer moves from side to side making a pleasing sound (Strathern and Strathern, 1971). Painted in bright colours, red and yellow, emphasises that a high point has been attained.

Figure 59 **Men's painted clothing for *Mok ink***

Man's netted apron, konap
Photo: author



Man's pig tale apron, *konap*
National Museum of PNG

Man's forehead ornament (*tomb*)
National Museum, PNG No: E3363

Painted arm band kirop
National Museum, PNG

Of great significance too is the human-hair wig, (*iri kelep*), painted with black charcoal, which embellishes the natural head hair making the wearer appear large and masculine; ôa fine head of hair (is) a sign of vitalityô (Sillitoe and Sillitoe, 2009:31)

For *ink* men also wear forehead ornaments, *tomb,* (Fig 59) painted in red and black, with a border of *nassa* shells. Other brightly coloured decorations are the elaborate triple head-dress (scarlet, gold and turquoise lorikeet feathers surmounted by bird-of-paradise plumes). These were not painted, the colours being derived from the natural material.

SULKA

Introduction

Among the Sulka, there are many occasions marked by pageantry, particularly the major life-changing events: initiation, marriage and funerals. Most of these ceremonies involve elaborately painted spirit masks (operated by men), accompanined by men and women dancers with painted bodies and colourful accessories.

Some of the coming-of-age and initiation ceremonies, nose-piercing and teeth-blackening, have died out, but their social significance is still recognized, featuring in painting on masks and *matpil* posts. People living close to the mission station at Guma use Christian ceremonies (such as baptism) to replace older ones.

Paints in Coming-of-age ceremonies

Boysô First Loin Cloth

Not much is known about childrenôs body paint for public ceremonies; early photos show them wearing miniature versions of menôs clothing (Fig 60). The main item of apparel receving painted decoration was the loin cloth (*katam*), which boys wore for the first time aged 7 or 8, when they joined the menôs house. For the first-born son (*taivol*) of a wealthy family a special ceremony was held, involving gift exchange, mask appearances and dancing.

> A near relative steps up to him and rubs his loins with a new loin cloth at the same time mumbling a magic formula and puts the new loin cloth round him. From now on the boy must not go unclothed anymore. Various masked figures then make their appearance and execute a dance
>
> (Parkinson, 1907:168)

Figure 60 **Sulka Men's and Boys Clothing**

Sulka men and boys wearing *katam* loincloths (after Parkinson, 1999:67, taken in 1907)

The *katam* was used hence forth as everyday and ceremonial attire as a symbol of manhood. It was worn by wrapping several times around the waist and allowing the ends to hang loosely at the front and back. New ones were specially made and painted for the various stages of initiation, such as nose-piercing, circumcision, teeth blackening and mask-wearing. Nakedness was considered a public disgrace by the Sulka and they rebuked their enemy neighbours, the Baining, for their shorter loincloth. Their day-to-day usage died out with the establishment of the Karlai and Guma mission stations in the 1950s, when men were encouraged to wear shirts and wrap-around cloths (*laplaps*). Barkcloth of the same type is still manufactured, now used in miniature form to dress human figures on masks (Figure 50).

Girls Initiation and Nose Piercing

Girls, as well as boys, were recognised for reaching certain milestones; at one time all children underwent piercing to insert nose-pins, once considered attractive and a symbol of maturation. Much ritual surrounded the operation, including cleansing with aromatic plants and food abstentions. Nasal septa were opened by piercing with the sharpened bones of fruit bats, which remained in situ for a week, then replaced by wood.

For enduring the pain, girls as well as boys, were rewarded with a small feast. Nose-piercing for girls was considered the first stage towards becoming a woman; later there followed other rituals associated with menstruation (see Chapter 9). First-born children were treated with even more reverence, for them nose-piercing was followed by a public ceremony at which people dressed-up, danced with painted ornaments and several masks were made and preformed.

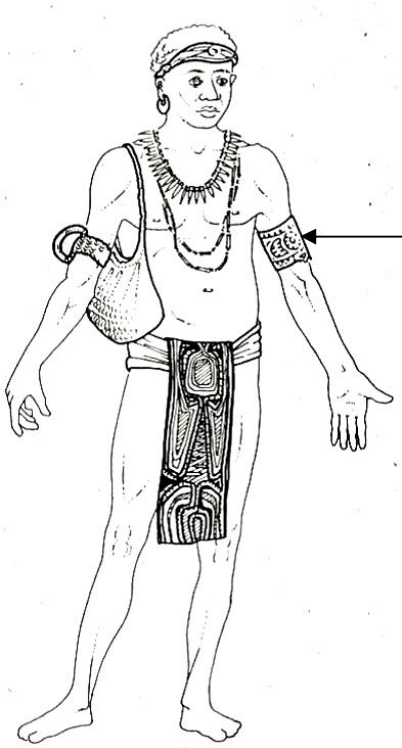
Circumcision Ceremony

Several pre-pubescent boys of similar age (9 - 12) succumbed to the ordeal of circumcision, which was conducted in the menôs house, away from women and girls. The candidates were prepared several days in advance by ritual cleansing and beatings, to prepare them for prolonged pain. For the act of circumcision itself boys were not painted; they were kept at a secret location till the wounds healed. Afterwards they are smeared with paint and a feast organised, at which painted masks danced around them, accompanied by women and children wearing body paint and chanting (Jeudy-Ballini 2004, Parkinson 1999).

Teeth-Blackening Ceremony

The final hurdle a man had to jump before becoming fully initiated into the menôs secret society was a ritualised painting of teeth, performed when he reached late teens to early twenties. Though no longer practised to day, there were in the 1980s several older men with blackened teeth, who remembered the details of this undertaking. Beforehand, there were certain abstentions for an initiand (*taven*) to comply with, such sex avoidance, not eating taro or drinking water. He was then purified using a series of ritual cleansings involving important plants: *patelei* (*Cordyline fruticosa*) leaves and *lkiet* (ginger). Failure to comply with any commanded task resulted in the black manganese (*ket*) not sticking. Throughout the proceedings there were many metaphoric and real references to blackness.

Figure 61 **Sulka Man's Clothing and Armband**



Sulka man's traditional clothing

Tortoiseshell arm band, (*pro-ran*)
Museum fur Volkerkunde,
Basel No: 2952. Photo: author

The novice had to chew *hunpere* shoots (*Mallotus ricinoides*) which turned his mouth black in preparation for the *ket*, which is heated over a fire with a selection of resinous plants used in recipes for black paint. While this is going on, songs are sung from the roof of the men's house, using the name of a black flying fox to reinforce the colour.

Figure 62 **Painted Artifacts associated with teeth blackening**

Part of a mask showing black teeth made from painted coconut shells. Linden Museum, Stuttgart No: 40617. Photo: author

***Matpil* post representing a *taven* (made for ordination of Catholic priest)**
Photo: author

This was followed by more ritual cleansing with spells; the *o'gitvung* were then ósmeared and painted (and) given a new loinclothô (Parkinson, 1999:80). The black paint on the cloth is thick and shiny like the stain on menôs teeth ï metaphorically it may serve to re-enforce this stain and help it stick. Successful blackening was the highest accolade and initiates were greatly venerated; only then could they take their full place in society, get married and carry out ceremonial activities, such as masking.

Art and Painting Accompanying Ceremonies

Much Sulka artwork illustrates these social accolades and all the initiation ceremonies described above concluded with feasts and gift exchange which involved dancing and masked performance (Jeudy-Ballini 2004). Masks portraying men with blackened teeth and nose pins were danced at these ceremonies, while in the menôs house painted posts representing initiands were erected (Bateson in Corbin 1980).

Womenôs Paint

The style of female body painting for these initiation ceremonies is unclear; Sulka informants could give no information. Older women still wore a traditional loincloth, which is the type they would have worn at initiation ceremonies, decorated with paint.

Figure 63

Sulka woman shredding *Alpinia* leaves to make a loincloth *nhek*

Figure 64

Sulka woman in traditional *nhek* and 'lep' (belt)

Menôs Paint

One style of menôs body painting was described to me by Paul Anis of Kilalum village. Red ochre formed the background colour applied to the trunk, over which circles and V-shapes in black and white paints were brushed on. To accompany this design,

Figure 65 **Tolai body painting**

Body paint of boy at Tolai funeral, Photo: author, 1986

Tolai paint, (1907) showing V-shaped design (after Parkinson, 1999:297)

faces and limbs were painted bright green or yellow with paint made from *monglop* (*Mallotus philipensis*). Similar style body painting is found among neighbouring Tolai.

Men also wore a variety of shells ornaments around their neck (unpainted). Arm bands were of orchid stem, sea shell, cane or turtle shell, only the latter (*pro'ran*) being painted; and are still in use. *Pro'ran*, bear ornately engraved designs, into which white paint was rubbed to infill the recesses, the white contrasting with the dark brown turtle-shell.

Paints for Courtship

Women

Sulka women no longer paint their faces to attract the opposite sex. Since the arrival of the Catholic and Seventh Day Adventist missionaries, such blatant expressions are now regarded as coquettish behaviour. I could extract no information about womenôs face painting for courtship in the past.

Men

On rest days, especially Sundays, young unmarried men paint their face and hair indicating they are ready for courtship. The paint used is red, from masticated betel nut (*Areca catechu*) and lime, applied in single or multiple streaks and is intended to attract the attention of girls of their choice. Saps from aromatic plants are sometimes added to the betel mixture and blessed by magic words, including the girlôs name. Older married men also use this type of red face paint during times of high spirits, as might precede an important festival.

Marriage and Bridewealth Exchanges

Betrothal involves a series complex bridewealth exchanges with shell arm bands, necklaces, and cloth. Initial prestations involve gifts from the woman to the man then on to his parents, who reciprocate by giving back a more (Parkinson, 1999:77). Masks also form part of the bridewealth exchange (Isaac and Craig 1999).

Figure 66 **Sulka bridewealth exchanges**

Woman displaying *pek* as part of bridewealth prestation.

Photo credit for both: author

Sulka bridewealth exchange, showing length of cotton trade cloth passing via groom's kinsmen on way to bride's kin; the patterns on this cloth are reminiscent of traditional barkcloth, which was once used for this purpose

Women

For the initial exchanges the bride and her kin wear the colonial-style *mari* blouses over brightly coloured wrap-around skirts. In the final stages, when masks are danced women wear more traditional garments, for example red and white loin cloths (Fig 67) with yellow face paint.

Figure 67

Sulka women dancing in red cloth waists bands. Photo: author

In the past, before the actual wedding ceremony, the bride spent time in recluse, hidden in a specially-made hut in the compound of her new in-laws. She carried out work for them, incognito from the rest of society. For public appearances she was camouflaged inside a cape of banana leaves (Parkinson 1999). Paints featured during this period - women cohorts ñput designs on her breast, torso and backò, (Parkinson 1999:77); these were tattoos, made by placing the black dye from *kerker* (*Phyllanthus c.f. cuscutiflorus*) into skin incisions (Hill 1986). The groom paid the women for this service in pieces of pork, suggesting it was for his benefit; perhaps having a role in sex protection. It may have served to mark the woman as married and therefore the sexual property of her new husband. A Sulka story of the very competitive founding anscestors (two brothers called Nut) supports this:

> Nut Sie was sleeping with the wife of Nut Vlu and he painted tattoos on her inner thighs. Nut Vlu suspected this and wanted to see the marks for himself, to prove that she was being unfaithful, but she successfully avoided him.
>
> (Hill, 1986)

After the period of recluse, the wedding feast takes place. The bride is dressed by her companions in a newly-made loin cloth, brightly coloured leavers, *ngoven* necklace, and *pek* arm bands which formed part of her bridewealth. Her body is painted from a yellowish-green paint made from masticated leaves with lime.

Men

Men wear bright single-coloured wrap-around cloths (*laplaps*) usually red, blue or yellow. White paints (lime powder) are sometimes used; male members of the groom's clan daub their faces in white while offering shells and cloth to the bride's clan. There is a song performed to accompany such skin painting, repeated several times as the brush is dipped into the paint and dabbed on the skin.

kwol	***lot ai e***	(Sulka term)
White paint	Bring here	(English translation)

(Hill, 1986)

Paints In Pre-marital Protection Magic

Parkinson (1999) mentions brides consuming red earth, a practice which has continued to the present, forming part of a series of sex protection rituals (Hill, 1986); there are also strict food taboos. The isolation period ends with a final cleansing of the entire body in the river using masticated *wankie* (*Aleurites mollucana*) nut wiped over the skin while singing magic words (below) to make it look glossy. This is also an ingredient of black paint. Coconut milk (white and glossy) can be used as a substitute (Jeudy-Ballini 2004).

Wankie (nut of *Aleurites moluccana*)	***tiva tivo*** clean, shiny	
Wankie	***Lula lolo*** running water	(Hill, 1986)

Men too undergo special protection magic, spitting masticated betel nut, *Areca catechu*, with lime (used as a red paint) through a circular hoop made of branch of the same plant; the hoop centre represents a womanôs vagina.

Mourning Ceremonies

All mortuary ceremonies involve painted people and painted masks. Following death, the body embalmed with aromatic plant saps, is displayed inside a dedicated house for about three days (Hill 1986). Women sit around uttering a ritualised wailing-sound, which gives way to sad singing. During burial and subsequently, a series of ceremonies take place ï the first, *manpun*, the second, *tantaning,* nine months later. A third stage (*nik*),

occurring 3-4 years later, is the biggest of all Sulka ceremonies, held only to commemorate the death of an important man or woman (Corbin 1990, Jeudy-Ballini 2004).

Figure 68

Women dancing at a 'nik' ceremony, Sampun Village

Detail of the same. Photo: author

Womenôs Paints

Immediately after the death, women mourners cover their faces and bodies with pale-colours from a number of sources: e.g. *salek* (*Saurauia conferta*) with lime, dull red clay or ash from the fire. Interestingly, women are familiar with using lime mixed with plants dyes as face paint, but not for artifacts; emphasising the point that context changes meaning. The plant they use, however, is different from menôs. Widows and close female kin of the deceased must retain the paint for a period of three months. Sulka oral tradition includes a song about a woman in mourning face paint:

> óa woman was standing on top of a hill and on her face
> she wore a mask of lime and plant juiceô
>
> (from Hill 1982, translated by C. Isaac)

For *nik* today women wear loincloths and long draping leaves, their cheekbones and foreheads are painted pale green. They dance in rows around a line of masks (Craig 1982).

Menôs Paints for Mourning

Men and boys paint their faces only, using pale green clay (*matom*) or white lime powder, as in Figure 70. They wear wrap-around cloths or (shorts) which have leaves draped around them.

Paints and War

Disputes over land, unpaid debts or marital partners were the most common causes of conflict and were often resolved amicably by compensation payments (Jeudy-Bellini 2004). Failure to settle could result in skirmishes between different Sulka clans or allied peoples such as the Mengen and Tmoip. More serious wars with long-term enemies raged on for decades, resulting in several deaths on both sides (Wilpert 1972). Before the German administration out ruled warfare in the early 1900s, Sulka fighting had been directed mainly against the Baining who were continually pushing into the coastal areas (Sack 1980).

Warrior Paint

Little is known about self-decoration for warfare, except that head-dresses of black cassowary feathers were worn (Parkinson 1907). Paint and various leaves also used to decorate warriors served to conceal their identity and add more colour to the total effect. Today only white lime is used on cheeks and foreheads. In the past, lime was used in fight magic by throwing into the air towards the enemy at the commencement of battle signifying to the enemy that their opponents were strong and 'hot' (powerful), like the lime powder (Parkinson, 1907),

There is more significance attached to the paintwork on the war shields than on warrior bodies. The equation of beautiful paintwork with success in battle has already been discussed in Chapter 4. The shield (*glier*) was considered an extremely important defence weapon, helping deflect large spears. The strength of the timber (as well as the psychological effect of the paintwork) was an important consideration to its effectiveness, as born out by this continuation of the *Nut* story.

> After Nut-Vlu finds his wife has slept with his brother, Nut-Sie, he wages war against him and Nut-Sie prepares his defence: To test the strength of wood for their shields Nut-Sie and his men threw spears into different species of tree. You can see the holes today. Only two trees were good enough: *knitok* (*Alstonia scholaris*) and *glier* (*Erythrina variagata*), from where they got their name.
>
> (story told by Paul Anis in Hill 1986).

From a distance, the large expanse of colour on a row of Sulka shields (Fig 69) would have been an intimidating sight, increasing the size of the wearers, individually and en mass, making them appear more threatening to the approaching enemy.

Figure 69

Sulka men in a dance mocking an imaginary enemy they have just killed in battle (performed for the 1982 Catholic Ordination ceremony of a Sulka priest) Photo credit: B. Craig

Simulated portrayals of battles are still carried out today for other ceremonies using ceremonial shields and clubs (Fig 69) painted in bright red, blue, green, yellow and black. In this performance, men carrying shields and brandishing clubs, dance with menacing movements shouting mocking words to an (imaginary) enemy. Meanwhile women line up in rows on around them playing *kundu* drums and singing the song below:

Sulka words	**English translation (by Chris Isaac)**
we mukengul	Women were yelling here
nta wuuwe mo a ei	ñI am afraid
ngulakei nurgpaning	the enemy canoes
atusai	are comingò

(from Hill 1982:103)

Christian and Other Contemporary Ceremonies

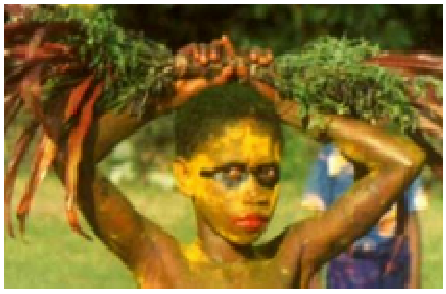
Paints from old marital and mortuary traditions have transferred to new Christian ones: for the ordination ceremony of a Sulka priest into the Catholic Church in 1982, relatives of the ordainee smeared white lime on their faces and displayed the same wealth items used for a marriage. They recognised the Western symbolism that a priest ómarries into the churchô and followed their own marriage traditions, complete with offering bridewealth payments and with painted masks performing. Some other aspects of the Ordination Ceremony (e.g. the type of masks used) also resembled mortuary ceremonies,

e.g. *nik*. In joining the priesthood, it was felt that the Sulka ordainee was being lost from ordinary Sulka life and it equated with his spirit leaving the village (Craig 1982, Hill 1986)

Figure 70 **Men's face paint**

a. Father of ordainee withwhite face paint offering shell wealth to the church. Photo: author 1982

b. Father and brother of ordainee with white face paint and *cordyline* leaves. Photo: author 1982



c. Face paint worn by Tolai boy similar to contemporary Sulka paint Photo credit: author (1986)

Today, there are many other reasons to celebrate which conform to modern lifestyle, such as the opening of a new trade store, the building of a copra shed, or the completion of a new school room. For these, bright colours such as yellow are used, obtained from a range of different plant saps mixed with lime, or trade-store colours. The paint is smeared on to the faces, chest and limbs of men and boys with no set design but co-ordinate well with fresh flowers and leaves.

Figure 71

Sulka men dancing in colourfully painted ornaments

Detail

Painted Body Ornaments

Contemporary body ornaments for both genders include a large variety of plaited green, red or variegated leaves, e.g. *tanget* (*Cordyline* sp) *seren* (*Alpinia* sp.), *songmel* (*Lindernia* sp.) or *porakei* (*Euodia anisdora*). These are draped loosely around necks, chests and waists or tied as bands around the head, arms and legs. Green leaf bunches are sometimes coated in white or yellow paint for a brighter effect, which is smeared over the the leaves with no set design.

Bands of barkcloth concertinaed together also form attractive ornaments; on these modern paints in yellow, orange and deep pink) are also applied. Womenôs versions of these are made of beaten *Pandanus* skin, painted with red vegetable paints, or strips of commercial cloth.

Discussion

For self-decoration, paints can be used to highlight features or camouflage them; the various colour combinations convey the wearerôs status and disposition. For the Mendi there is a recognised scale of attractiveness, increasing in elaboration from ordinary, good quality (or second-best) to best (Strathern and Strathern 1971; Sillitoe 1988; Layton 1991). Decorating bodies with paint is central to Mendi exchange ceremonies; paint is used to attract, intimidate, gain respect and communicate success or failure.

The colour schemes and added decoration are changed to suit the occasions: strong or bright colours (with red) equal jubilation and success in ceremonial exchange, while contrasting dark and light effects show strength and aggression (warfare). Using the full array of paints and ornaments means that wealth transactions have reached a successful conclusion and community ties are cemented. In contrast, when things have gone wrong (in death) or payments are not met (in compensation) they wear only dull, pale paints which denote sorrow, shame, dissatisfaction or humbleness.

Less is known about traditional Sulka body painting and clothing than the Mendi, because they were contacted much earlier by European settlers and have largely adopted Western-style clothing. In warfare, Sulka men wore mainly red paint. Today, white but not red, face paint is used for ceremonies, for marriage and mourning, and even those depicting mock battles. White may indicate a degree of readiness to exchange partners that prestations will commence.

Unlike the Mendi, there appears to be no obvious stages of increased elaboration among the Sulka, other than the former donning of new fine-quality loincloths at the end of initiation. The masks and complex dance ornaments have placed the focus away from painted (naked) skin, perhaps to accommodate Christian views on modesty. Large numbers of Sulka men are involved in masking which hides their upper body, thus negating the need to wear elaborate paint.

CHAPTER 8

PAINTS AND THE ANSCESTORS: PAINTS USED IN SECRET CULTS, MASKING AND MAGIC

Introduction

ôMelanesian societies are characterised by beliefs in spiritsô (Craig 2005:4). Among the Mendi and Sulka, spirit beings take on different forms, they may be animal-like or human, and they inhabit different places - forests, water, the sky, houses and even inside people. The spirit domain is not seen as separate from the human world but co-existing with it and permeating through it. Almost every social activity, for example gardening, pig rearing, warfare and wealth exchange can be affected by spirits; thus crop failure, sickness and loss in battle or disputes could all be attributed to spiritsô harmful actions.

A particularly powerful group are ancestor spirits, those of the recently deceased being considered the most harmful; they are felt to exert control over humans causing sickness, death and misfortune. Several ritual practises including secret cults, masking and magic spells, are used to appease ancestor and other spirits, to enlist their help or chase them away.

Paint, particularly red ochre, being a vibrant, attractive substance, plays a key role in alluring spirits to specific places or into objects to avert their harm. It does not necessarily require a substrate to be effective; but can be used raw: consumed as a potion, rubbed on as an ointment, or be-spelled as a charm. Depending on the forces called upon and the spells used to empower it, paint has both positive and negative qualities. It can bring about good fortune and prosperity, but can also cause harm or death. óAlmost all magic involves some form of coloured mineral substance that is classified as paintô (Forge, 1962:16).

MENDI

The Mendi recognise three groups of spirits: sky-spirits, *yeki,* which affect weather and have some influence over fertility; earth spirits, regarded as the guardians of natural terrain (Mawe 1991:46), generally harm people when they stray in the wrong place, e.g. the mountain forest spirits, *trip temo,* which eats humans and steals children; and ancestral

spirits, divided into the recently dead and long-gone ancestors. Of the latter group, ôluck and good fortune are attributed to the (ancient) ancestors, while sickness and death are caused by the recently deadô (Mawe 1991:43).

The ancient spirits are more ôgod-likeô, forming part of Mendi mythology and oral history; it is to these that people turn for help, but they are capable of causing harm if correct procedures and taboos are not complied with. Recent ones are considered the most harmful, but their powers are limited to affecting only their closest kin, e.g. spouse, children, siblings and other sub-clan members (Ryan 1961:123).

Paints in Secret Cults

There are many levels of ritual practice carried out to appease ancestors: from a simple offering of a cooked pig by a family member to a recently deceased relative, to a large-scale cult ritual with different stages, involving many men, large pig kills and sacred objects. The larger rituals were carried out to promote well-being in the whole community, or to off-set disaster, such as drought or disease. Most involved ochre and pigôs blood; ôno pigs can be killed without being offered ... to the ghostsô (Ryan 1961:204).

Cult rituals were characterised by extreme secrecy, exclusivity to men, and a degree of male initiation; they are also concerned with competition, goodwill and pork-sharing between men of the same clan-cluster (Ryan, 1961). Cult knowledge spread in from allied neighbouring groups and had to be purchased; ôit was a way of acquiring wealth ï people gave shells, salt, oil for the knowledgeô (Sillitoe and Sillitoe 2009:151).

Such cult activities were conducted with total exclusion of women, children and uninitiated men. Women were warned by flutes blowing at the commencement of the rituals to keep away (Hill, 1986); any who strayed too near could be legitimately raped, while uninitiated men could be severely beaten (Ryan 1961:276). They resemble some of the practices of secret societies in the Sepik area, coastal New Guinea and parts of the Bismarck Archipelago (Strathern and Strathern 1971).

The post-colonial period saw the ingress of many such cults spreading through the Highlands (Ryan 1961), perhaps gaining momentum as warfare was being phased out. Mawe reported on fifteen different-named cults in the Mendi valley, that had been practised in recent times (Mawe 1985:46). Of these the best documented are the *timp, kepel* and *temom ne* ceremonies.

Timp Cult

Ryan (1961) observed the first *timp* ritual ever to reach the northern part of the Mendi valley in 1958; he suggests it moved in from the south, perhaps from the Papuan Gulf; as it approaches, óanticipation and excitement prepare the field emotionally for its acceptanceô (Ryan 1961:271). Sillitoe (1979) and Lederman (1984) witnessed other versions in the 1970s. I did not see any *timp* ceremonies, but elements were described to me by Paki Ya who had been a participant (Hill 1986).

Procedures started with the location of a secret place on communally owned land and the construction of a special house, *timp anda*, which could only be used by the selected men. *Timp* rituals were shared between patri-kinsmen of the same clan grouping who were already exchange (*twem*) partners (Ryan 1961:272). A few men, mainly those who have wealth and influence, are selected as officers or spell-holders, guiding the others through the sequence of rituals (Ryan 1961:273-274).

All men new to *timp* and other cult rituals had to undergo an initiation ceremony which involved the use of secret vocabulary, spell-knowledge, sacrificing possums, sleeping in circular formations, the consumption of particular foodstuffs and the avoidance of others (Mawe 1985). Rituals performed involved sacrificial pigs, each participant contributing one pig as payment to enter; óa Mendi sacrifice is an attempt to distract the ghost's attention from its victims by the offer of an alternative and (it is hoped) more attractive foodô (Ryan, 1961:265).

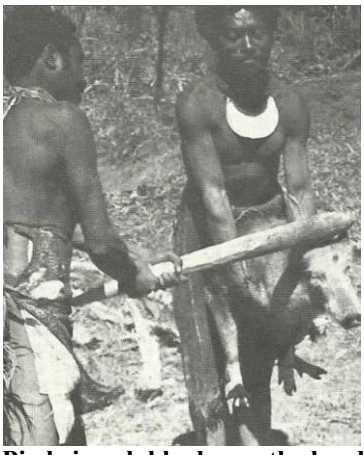
Painted Bodies and Painted Objects used in *timp* and other rituals

For the earlier stages of the cult, men wore their second-best decorations, faces blackened with white designs on top, with cassowary and cockatoo feather headdresses; they performed a stomping dance ócarrying bows and arrows, which they rattled as they chantedô (Sillitoe and Sillitoe, 2009:154) to celebrate the commencement of *timp*.

Painted objects formed a key part of the cult rituals, e.g. *poranija*, kite-shaped discs made of wood and *Pandanus* leaves (Pretty 1969:27). These were painted with cross-shaped and circular designs in red, black and white, hung in the doorway to warn others away (Sillitoe and Sillitoe 2009). óAs the men go in they are chewing green ginger which they spit on to the *poranija*ô (Pretty 1969:27); this was to keep away other spirits who may weaken the spells performed inside (Hill, 1986).

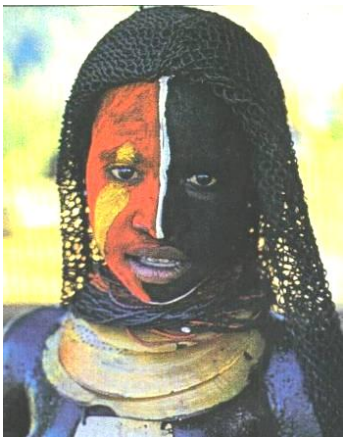
Also used for *timp* and other cults was a large wooden post or club, *abor***,** made of *pel* (*Podocarpus c.f. pullei*) wood, rounded at the top and painted with red ochre on the lower half (Hill 1986), similar to that in Figure 72. It was employed first to kill pigs by hitting them across the forehead, then stood upright in a specially dug pit inside the *timp anda* to the right of the doorway, surrounded by a circle of sacred stones also painted with red ochre. Stones used for *timp* are called either *timp-oba* (egg-shaped) or *temo-win*, meaning ghost bones (Ryan 1961:274).

Figure 72



Pig being clubbed over the head (after Sillitoe and Sillitoe 2009:44)

Figure 73



Girl's face paint for timp ceremony seen as unification of male and female (source: Crawford 1979)

Each man in turn butchered his pig over the post, blood spilling down over the ochre and into the pit while special words were chanted (Hill, 1986). Fresh blood was also dropped onto a fire, lit in the centre of the house, ósо that the smell of cooking blood [would] attract the ghostô (Ryan 1961:204). The pigs were then decapitated and cooked in a separate outhouse, later divided among the participants. Jaw-bones of the cooked pigs were kept to decorate a wall in the ancestor house, alongside the jaw bones of important men who had died. The painted *abor* post remained in situ for some time afterwards to receive fresh ochre and sacrificial blood from newly killed pigs at times of sickness or death, to distract the spirit's attentions and prevent them from seeking new hosts.

A separate phase of the *timp* cult involved the exorcism of a female spirit, for which painted premenstrual girls were brought to the *timp* house. Dressed in bridal gear, their bodies were blackened and faces painted one-half black and the other half red and yellow,

with a white line separating the two halves (Figure 73). The girls represent the female in her most pure and unpolluted form, and the juxtaposition of the red, yellow and black painted sections signifies the unification of male and female entities, encouraging the female spirit to act in a benign way towards the men (Mawe pers comm 1986). For this the rounder ófemaleô stones were painted with colours such as yellow, white and black, as well as red.

Painted Masks

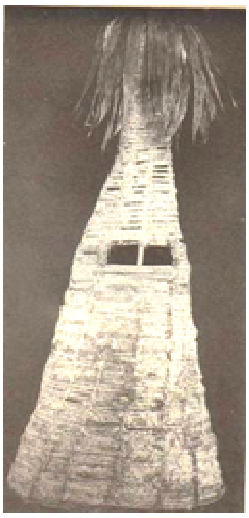
Mendi spirit masks have had a significant part to play during certain types of ceremonies. Two principal styles are the *solkeo pe englep* made of gourd and leaves, and the *timp sonk* constructed from basketry, both having moved into the area with the arrival of new cults.

Figure 74

(a) *Solkeo* Mask. South Australian Museum, Collector Graham Pretty

(b) *Solkeo* mask National Museum of PNG 83.45.38 (after Mawe 1985:106)

(c) Drawing of *solkeo* costume (after Mawe, 1985:42)



(d) *Timp* mask National Museum of PNG 83.45.40 (after Mawe 1985:106)

The *timp sonk* mask is a basketry cone-shaped structure worn by men for the final stages of the *timp* cult, two or three of them performing at a time. These masks were painted entirely in white clay to represent womenôs mourning apparel, and accompanied men cross-dressing in full womenôs mourning gearm - daubed in white paint with ónkle length grass skirts and voluminous Jobôs tear seed necklacesô (Sillitoe and Sillitoe 2009:157). The pretend ómournersô carried the bark bundle of pig bones and conducted a mock burial nearby to fool the uninitiated and weaken the ghost associated with the pig bones (Sillitoe and Sillitoe 2009).

The other mask, *solkeo,* is still used today during an annual dance called *mol* (Mawe, 1985:41), performed to appease a bad mythical character called Solkeo, famous for his cannibalistic exploits. To be worthy of representing Solkeo and to perpetuate the ferocity, men taking part must themselves have killed other men. Only the facial section of the mask (the gourd) is painted; Figure 74b shows the placement of colours (red, black, white) resembling designs on Mendi shields, while on (b) the arrangement in black and white echoes face painting for men. On (a ï c) the facial features are deliberately grotesque, their distortions accentuated by paint, seeds and human hair; the body is enlarged by thick moss coverings, with only feet and forearms exposed. Male dancers accompanying *solkeo* mask wearers have their faces painted with red, black, white and ócon rare occasions blueô (Mawe, 1985:41); their bodies are oiled and their legs painted white.

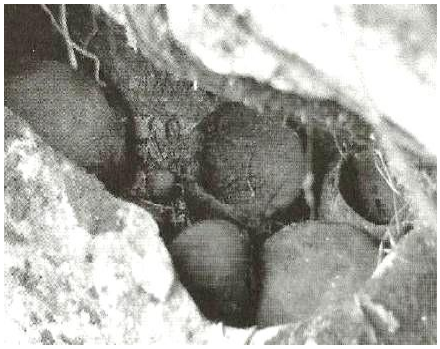
Painted Stones used in the *kepel* ritual

Painted stones (known as *ungenap* in Mendi or *kepel* their imported name) were used in a number of rituals for appeasing spirits and healing the sick. Ryan suggests this stone culture had been in existence for a long time, but the actual cults governing painting and pacifying them changed periodically, being traded from one group to another (Ryan 1961).

Kepel stones were considered embodiments of ancestor spirits: ócancient ghosts retire into the earth or into the ancestral stonesô (Ryan, 1961:123); those of the recently dead and closest kinship being the most dangerous. The stones were wrapped in red leaves, *nonkso,* (*Astronia angustifolia*) and hidden inside special houses, *kepela anda,* or secluded locations, such as caves (Fig 75). Each sub-clan had its own house and set of stones, one stone representing a dead ancestor; óevery family é . has a special interest in more than one of themô (Ryan, 1961:267).

Rituals were carried out particularly ówhen misfortune [struck] the family or clan concernedô (Mawe, 1985:54) or when the spirits were believed to be their most vengeful. Men of the sub-clan concerned about the sickness of a close family member, gathered together to conduct a curing ceremony, because all ósickness or disease was attributed to the bite of a ghostô (Ryan, 1961:124).

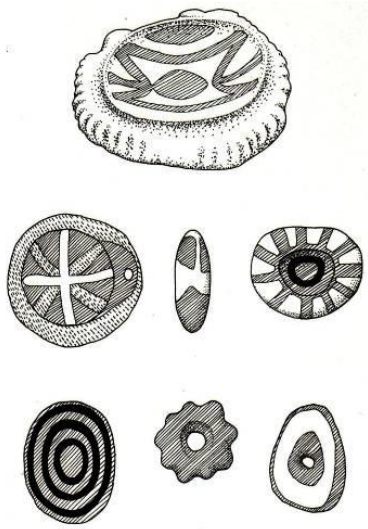
Figure 75



(a) Prehistoric ritual stones hidden in cave, Wola area.
source: Sillitoe and Sillitoe 2009:160

(b) Naturally weathered stone painted red and yellow
Photo credit: author

(c)Painted mortar
National Museum of PNG
Photo credit: author



(d) Drawing of painted mortars, pestles and club-heads used in *kepel* ceremony. From National Museum of PNG collection

To pacify them the stones were anointed with a paint mixture of red ochre and pig fat, with blood from the freshly killed pigs, followed by *tigaso* oil while spells were uttered, such as this example told by Paki Ya:

Swik (Name of place)	*Lapon* (red ochre)	*Kumkum* (soothing word)
Kusal (name of river)	*Mekim* Pidgin ï to make	*kumkum*
Kopal (name of mountain)	*Mekim* Pidgin ï to make	*kumkum*
Mungre (name of lake)	*Lapon* (paint)	*kumkum*
Penem Pidgin - to paint	*lapon* red ochre	*kumkum*
ombol pig fat	*sokai* father	*kumkum*

(after Hill 1986)

Though the ceremony is no longer practised, the words are still remembered by some older men, having witnessed these rituals in their youth. The spell calls upon the

ancestorôs home area, the nearby river, lake and mountain; it is encouraging the ancestor spirit to accept the red ochre and the oil, then go away and leave the sick man alone. It uses a mixture of Mendi and imported terms, as well as Pidgin. *Lapon* is used for red ochre, instead of *tint kas*; lexical changes occur when spells are bought in from another language group. Mendi informants stressed that having two possible words for the paint gives it twice as much power. Even when rituals were not carried out for an extended period, the stones were still visited every 3 to 4 months, fresh paint being applied each time. The regular anointing maintained the image of fresh blood for the ancestor spirits who were óhungry for bloodô (Mawe 1985:55)

Temon ne Leprosy Curing Ceremony

Red ochre was also used in the various stages of a ritual, *temom ne,* for curing a much feared sickness, now recognised as leprosy, which was once thought to have had supernatural causes, the sufferer having been óbitten by evil spiritsô (Mawe 1985), or caused by sorcery. Lengthy ceremonies involving red ochre and wooden sticks (*kopan*) were carried out to prevent the spirits from attacking new victims (Figure 18).

A person exhibiting signs of leprosy was usually isolated during the latter stages of the affliction and made to live alone in a dwelling house separated from his or her family. Only after the leper was in his death throes, or had actually died, was the *temom ne* ritual performed to prevent the leper's internal spirit from reaching other people in the area. For this the leperôs close male kin donned ceremonial dress using black and red colours; bodies were greased with tree oil and faces painted in black and red. They wore the *so kenden* cassowary feather headdress, with *pir ako* (red and white *Cordyline*) as a buttock covering and red *parparso* leaves around the forehead (Mawe 1985:76).

At the start, pigs belonging to the leper's family were slaughtered. A male spell-holder and close kinsman of the leper, prepared special sticks, *kopan,* consisting of pieces of wood, about 15 - 20 centimetres long, cut from the *pel* tree. About eight of these were stood vertically in the ground in a circular arrangement, in the centre of a well trodden footpath near the leper's house. A shallow pit lined with *kipso* leaves (*Myristica* sp.) was dug within the circle and a round stone was placed inside, surrounded by *emuso* leaves (*Astronia* sp.), Figure 76a, together with a type of puff-ball fungus (*sos*) and a fern (*hom*). The fungus (also used in other rituals) was intended to make the ómouths and teeth of ghosts soft and

ineffectiveô (Sillitoe and Sillitoe 2009:102) so they could no longer bite human flesh.

Paint use included red ochre and pig grease smeared onto the top of the stone and red ochre, pig's blood and *pel* tree sap coated onto the exposed sections of the *tikopon* sticks. During the painting a set of incantations was spoken by those conducting the ceremony:

tim red tree resin	*olisi* red bird	*pe'olsi* (word play)
nem sap of red fruit	*webkap* red bird - male	*pullet* red bird ï female
eb'tayek red berry	*fuilet* aromatic plant	
kures red *tanget* (*Cordyline* sp)	*fuilet* aromatic plant	

(after Hill 1986)

The plants and animals proclaimed in this charm are red, called upon to give power to the ochre to heighten its redness and thus attract the spirits concerned. Blood from the freshly slaughtered pigs was then poured over the central stone and four more *kopan* sticks, were placed horizontally around it (Fig 76a). One by one, each person from the leper's sub-clan approached the sticks stepping over them carefully, then following the path away from the leper's house. This gesture was intended to drive the sickness out of the area and prevent it from returning to consume another inhabitant.

The leperôs body was then treated to a series of spells to prevent the malady within him from escaping to the exterior. More *kopan* sticks were painted in stripes of red ochre mixed with pig's blood and sharpened at the ends; they were used to insert lumps of crumbly ochre into all the orifices of the leper's head, the eye sockets, ears, mouth and nostrils and push them through, while accompanied by more words:

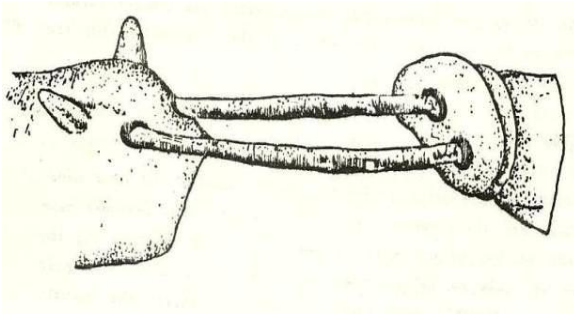
emumso plant	*Ti'kopan* sticks	*wambulre* tree oil	
nkose finish	*mua* sickness	*temo* spirit	*Teminiba* name

(Hill, 1986).

The Mendi believed that a spirit entered the human body via the orifices and that the red paint helped both to seal it in and to provide additional food supply when it had consumed the inside of the leper, thereby preventing it from seeking other human victims. Should the red paint fall out of the skull, this would be a bad omen as it would indicate that the spirit either rejected the offering or had escaped altogether from the leper's corpse.

Figure 76 **Painted equipment used in the *temon ne* leprosy curing ceremony**

a. Paki Ya demonstrating the arrangement of painted stone and sticks that people stepped over. Photo credit: author



b. Kopan sticks coated in red ochre placed inside the eye sockets and nostils of separated sections of a pig's head. Drawing A. Gideon, from Mawe 1985:77

The night following the leper's death and during the first stages of the ceremony, the male kin and the ritual specialist gathered around the corpse calling out to the spirit(s) concerned to eat the red ochre and leperôs blood and not return to consume the living. Other pigs were cooked, butchered, then be-spelled using a two *kopan* sticks painted in red ochre. One pair of ends were dug inside the eye sockets of a ópigôs head, while the other ends were pushed into its nostrils, (the nose having been cut off and inverted so the two pairs of orifices opposed each other, connected by the *kopan.* This was then presented to the spell holder (Mawe, 1985:76) who uttered incantations. This metaphorically blinds the spirit so it will be unable to seek out future victims.

The corpse was then wrapped in barkcloth and buried in a deep grave, several hundred metres from the dwelling houses. Years later, the bones of the rotted leper's torso would be dug up and treated with newly painted *kopan* sticks to prevent the disease from returning to the area to take more lives. Because of its colour association with blood, if was felt the red ochre would be a source of food for the spirits, instead of human flesh.

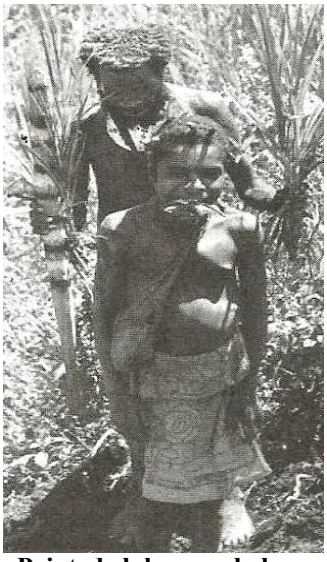
Paints in Healing Rituals and for the Promotion of Health and Well Being

Red ochre as a General cure-all

All illnesses and non-violent deaths are attributed to spirits (Ryan 1961); ritual cures are not devised to relieve symptoms but óto please or appease the angered ghosts to lessen their malevolent attacksô (Mawe 1991:46). Red ochre plays a major role in traditional

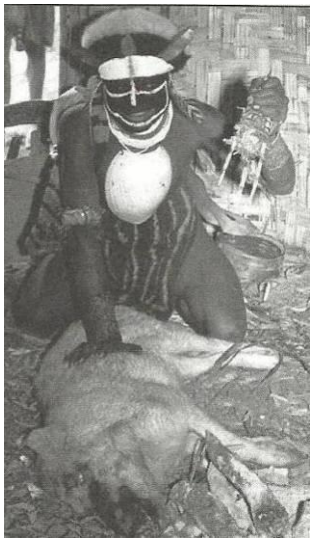
healing and medicine and in all its applications, the brighter the red colour the more powerful and active it becomes.

Figure 77 **Painted objects used in healing rituals**



Painted club passed along sides of a boy to cure his illness (after Sillitoe and Sillitoe 2009:44)

***hobaen* trident painted red National Museum, PNG Photo credit: author**



***hobaen* trident made of a hardwood (*Rapanea sp*) particularly suitable for spearing ghosts (after Sillitoe and Sillitoe 2009)**

Skin ailments such as tropical ulcers, ringworm, cuts and bruises are treated directly by the application of powdered red ochre, which is mixed with water or saliva and rubbed onto the affected part. Aches, pains and even broken bones, are similarly treated, massaging ochre it onto the aching part. Spells usually accompany the application of ochre.

Sicknesses such as severe tubercular coughs, or prolonged stomach upsets might be treated with pig's blood in addition to the ochre; this mixture is first bespelled then applied externally, as close as possible to the affected part. Red ochre with pigôs blood may also be applied to a knot of hair on the crown to stop the personôs life-force or soul exiting from this point (Sillitoe and Sillitoe 2009:43).

The more serious the disorder, the more elaborate becomes the cure rite. Other painted items may be employed in the healing ritual ï such as óthe pel club painted with charcoal and ochre stripesé . the decoration believed to frighten off ghostsô (Sillitoe and Sillitoe 2009:102), used not only to kill the pig being offered but also in the treatment ritual. An example among the Wola is where a painted club and red-leaved plants were passed down the sides of an ailing boy (Figure 77a) then pressed into the soil at his feet, so that he

would be ólike things planted ï all vigorous growers - strong and healthyô (Sillitoe and Sillitoe 2009:44).

If the person gets worse, divination rituals may take place to determine which type of spirit is responsible. Stronger magic, involving a three-pronged *haebon* painted with red ochre (Figure 77b,c) and a sacrificed pig, may be required, taking place in the menôs house by the fire, under which strong spirits reside ówhere they take on the form of frightening snakesô (Sillitoe and Sillitoe 2009:102). The *hobaen* is put on the pigôs snout and placed into the hole in the fire place; óthe sharpened prongs will enter the eyes of any snake spirit there and blind it so making it unable to see and attack any of its descendants furtherô (Sillitoe and Sillitoe 2009:102).

Paints as Womenôs Medicine

In womenôs rituals, all four coloured paints are used: red, white, black and even yellow. In the past, Mendi women used red ochre to induce an abortion. In the early stages of pregnancy, presumably if menstruation has been notably absent, red ochre was applied to the lower abdomen using a downward rubbing motion. This was thought to bring about the flow of blood leading to the termination of the pregnancy. Red ochre is still used by women during their menstrual periods to reduce abdominal pain.

When a woman was noticeably pregnant (at about five months), a series of rituals involving the use of white paint were performed on her. A kinswoman of some seniority and with experience of women's magic, would massage moistened white clay on to her swollen belly while uttering a set of incantations, ó*kurure tamani tipe reget*ô meaning ócome out child quickly turnô (Hill 1986). The paint was believed to have the following benefits: promoting the growth of a healthy infant, reducing the gestation period, and helping to turn the foetus into the correct position for birth. It also reduced the level of pain the mother during labour. The white clay was never washed off and when it started to wear off the ritual was repeated with new applications of white clay until the time of the birth. In this example, white paint symbolises growth and health, as in the case of white in pig magic (see below).

After the birth the mother and newborn child would remain in a temporary hut especially constructed for them, until the baby's cut umbilical cord had healed. When the time came for her to rejoin her husband, the woman spell-holder would be invited back to perform another ritual. This time, black paint (a mixture of charcoal and *tigaso* tree oil)

would be rubbed on her lower abdomen and more magic words spoken; it was left until it wore off. The explanation given was that it delayed the next pregnancy (Hill 1986). Taken literally this contradicts some associations of oily black paint, such as promoting fertility, but is consistant with the role black paint before marriage consummation and during menstruation. It warns the husband of the polluting aspects of the afterbirth giving him time to conduct protective rituals. Yellow ochre is used after consummation of the marriage. The couple first eat a baked gourd, afterwards, the husband smears a line of yellow clay ódown his wifeôs and his chests, harking back to the theme of decoration enhancing a healthy bodyô (Sillitoe and Sillitoe 2009:80) and is likened to the succulent yellow gourd - a symbol of glossy, healthy skins.

Paint in Pig Magic

Paint is also used in pig magic to induce growth. Pigs are important wealth items so women carefully hand-rear them to ensure successful growth and reproduction, thereby helping their husbands achieve recognition. A wife proficient at rearing large numbers of pigs is of tremendous credit and is greatly respected by all. Competition is so strong that a series of spells are employed, some involving paint. Spells tend to be family owned: óa woman acquires pig magic from her mother, who receives a token payment, a shell ornament, a handful of saltô (Ryan, 1961:292).

Pig magic is the domain of women, carried out in secrecy away from men; it is often performed at night during a full moon. There are many recipes and spells for such magic, the following is one method: white paint is crushed with a white flower (*Medinilla schummania)*, then steamed together with a white variety of sweet potato and fed to the pig at dusk, just before the moon rises. The white pigment shown to me, as used by my Mendi hostôs wife, was a soft limestone obtained from a cliffy escarpment (Figure 80). The symbolism behind this is that the pig will build up fat layers as high and white as the limestone cliffs. After eating it, each pig is lain down and white paint (either crushed limestone or clay) is rubbed on each flank in turn, starting at the head working down the length of the body. The painting and attendant charm requests that the pig's body fat become full and white like the moon and take on the fluffy texture of the clouds in the moonlight.

amim	*tulol*	*opom*	*tulol*	*so ekim*	*tulohe*	*wie*
Abdominal fat	grow	fat on back	grow	cloudy sky	broken	is (or are)

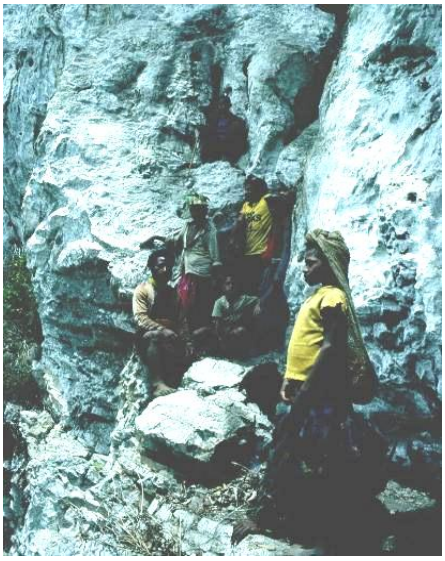
(Hill1986).

Afterwards, any unused white paint is placed on the roof of the pigs' hut under the light of the moon, to reinforce the magic. All the foodstuffs given are white to perpetuate the symbolism. The same white paint is fed to female pigs to encourage plenty of offspring and also as a medicine when pigs become sick.

The use of white paint in pig magic is widespread in the Highlands; it can emanate from fire ash, clay or limestone. Sillitoe (2003:272) cites a spell to accompany the use of ash which metaphorically induces the pigôs fat to ócumulate as pure white fat, like the heap of pale ash é in the fireplaceô.

Figure 78 **Source of white paint**

Raised limestone escarpments in the distance, Bela sub-district. Photo credit: author



White paint for pig magic from limestone escarpment. Photo credit: author

Paints as Good Luck Charms

Apart from the use of paint in influencing health, growth and physical fitness, paints are also used by the Mendi to bring about good fortune and generally improve a person's opportunities and overcome the difficulties of everyday life. Men frequently carry small lumps of red ochre, interesting-shaped pebbles, and a variety of potent herbs in their shoulder bags, *bilums*, to be bespelled when needed. Each man conducts his own personal magic with the items, which may be newly invented for the occasion or acquired from his father or a close kinsman. Tried and tested charms are often preferred as these have already worked successfully in the past.

Paint is sometimes mixed with other ingredients, such as bat bones and leaf fragments; óthis potion is bespelled and used to daub their faces during special exchanges

ceremoniesé when exchange partners see the markings they become impelled to treat the bigmen generouslyô (Mawi 1991:46). In this way, paint is used for personal gain, to help men win disputes, to reach high prices for exchange items and even to obtain the spouse of their choice.

Figure 79 **Magic charms**

a. Painted stones kept in men's bag. Used by Chimbu people, similar to those used by Mendi. Western Highlands Cultural Centre, PNG. No: 83 – a67. Photo credit: author

b. Red ochre wrapped in leaves for use as charm, Mendi

Photo: author

Figure 80 **Man's *Bilum***

Mendi man's bag (*nu*) for carrying personal items
Photo credit: author

SULKA

Secret Ceremonies, Painted Masks and Painted Objects

Like the Mendi, the Sulka ritual customs once centred around belief in spirits; for some Sulka these have now been replaced by biblical characters. Personified in many myths are group of founding ancestors (Nut Vulau, Nut Sie and Parol) from whom Sulka believe they descend, and who are responsible for the origin of important ritual objects such as masks and slit-gongs.

Much feared are those spirits which arise from recently deceased people, and earth spirits which can take on many forms such as human or animal. Examples are the *mokpelpel* ôbeings with bodies like humans only more coarse and misshapenô (Parkinson 1999:81) which guard rocky areas, caves and waterfalls and devour people, and *kot* spirits which take the form of snakes, living under tree roots or alongside river banks. Such spirits are capable of attacking passers-by and causing sickness (Corbin 1990).

Methods of exerting control over spirits are at two levels. Small family groups, or individuals, utilise magic to offset disease, bless garden crops, or chase away forest spirits

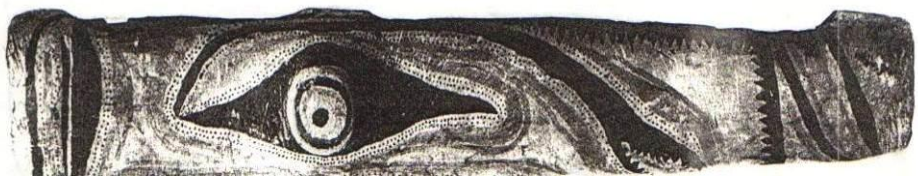
before a hunt (Jeudy-Ballini 1998). There are then the more formalised ceremonies conducted by masked men, which have a dual role of commemorating social events, such as marriages or funerals, but at the same time helping to dissipate the negative influences of ancestor spirits. The Sulka masked ceremonies are not like the ritualised cults found among the Mendi which last only for a few months, disappear then get replaced by another, but are long-established (Rascher 1904), evolving subtly over time to absorb contemporary influences.

Painted Decorations in Menôs Houses

The most secret parts of ceremonies, particularly those involving masks and male initiation, are conducted in special menôs houses (*a'gulu*), away from the prying eyes of the uninitiated. These are followed by public displays of dancing, at which painted masks perform to represent spirits. Once, all Sulka villages of a certain size and status had a menôs house, where matrilineally-allied kinsmen gathered to discuss and organise ceremonial life; óthe inside was very well decorated with figures and designs, some burnt into the wood, others stained with dyes, made from the juices of various nutsô (Powell, 1878:108).

Various wooden structures marked the entrance, for example *matpil* posts and wooden slit-gongs (*song*), becoming the physical and psychological barrier between the initiated and the uninitiated. Men manufactured the slit-gongs by hollowing out hardwood from *kovar* (*Intsia bijuga*) calling upon the female ancestor, Parol to assist. In Sulka mythology the *song* was created by who bit out the centre of a tree with her powerful jaws to make it hollow (Hill, 1986). Thus associated with *Parol,* the gong was used henceforth

Figure 81



Small version of painted slit gong

to invoke good spirits and chase away bad. The sides were elaborately carved with painted designs in red, green, white and black; one side facing outwards was on view to the public, the other could seen only by the initiated men within. The eye motif which features on

shields and dance ornaments were usually present, perhaps to watch the coming and goings of people and spirits.

Carving and painting the slit-gongs was conducted in utmost secrecy from women until it was ready; a huge celebratory festival ensued, involving *keipa* masks and food distribution.

Figure 82 **Slit Gongs**

Large slit-drum inside men's house at Tagul village.
Photo credit: author

Large wooden block in doorway of men's house in Kinkapra hamlet, occupying the place once held by a slit-drum. Photo credit: author

The slit-gong was a very important ceremonial item, producing huge resonance when hit; it was used to summon men to the menôs house for important meetings and ceremonies, and to announce deaths.

Painted *Matpil* posts

More painted decorations are placed in the menôs house during a festival called *nik,* the largest of a series of mortuary ceremonies, which commemorates the passing of very important men or women and lasts several months. It begins with the ritual carving of commemorative posts, *matpil* by Sulka men. In former times, the first completed pair of posts was placed in the doorway of the menôs house to signal commencement of the ceremony. Anthropomorphic in shape (called *mormingudor*) they sometimes represented one male and one female.

Though not allowed in the menôs house, women carried out their role growing and preparing the very important festival foodstuffs (taro and banana) and fattening the pigs. Some of the house posts bore designs associated with these ceremonial foods, such as one photographed by Bateson in 1928, which stood in the centre of a menôs house, representing 'a cooked pig whose skin had been cut preparatory to carving' (Bateson, in Corbin 1982);

perhaps this was to encourage advancement of the pig rearing. Few menôs houses contain such ornate structures today.

For the final part of the *nik* ceremony, which involves dancing and masking, several other *matpil* posts are constructed to line the walkway into the dance ground. Many of these are also anthropomorphic in shape, with carved and painted facial features (sometimes including blackened teeth) intending to represent mythical ancestors. The lower parts bear geometric patterns (Figure 82c), some portraying a circular motif, identified as the óeye of a spiritô (Corbin 1990:81).

In a *nik* ceremony at Iwai village, in 1985, dancing women wove around each post symbolising the chasing of a spirit, then ódeadô him out of the arena. Whilst today, festooned with decorative plants and bunting, their function is seen as mainly aesthetic, they may once, like the carved *bisj* poles of the Asmat, have represented the dead (Thomas 1995), each post being assigned to a different ancestor.

Figure 83 ***Matpil* Commerative Posts**

a. Anthropomorphic *matpil*, Guma, 1982 Photo: author

b. Matpil posts lining the track into the dance-ground, Guma, 1982. Photo: author

c. *Matpil* post, Sulka men's house, with eye motif and pig-fat design. Photo: Bateson, (Corbin 1990:81)

d. Old *matpil* post, decorating a man's house, Guma. Photo: author

Painted *Tra*

In the past, the *nik* ceremony would culminate with the presentation of important bones (mandible and femurs) of the deceased, which were sealed inside a special container, *tra,* made of pith beautifully decorated with paint. The *tra* became the main feature of the ceremony, and was danced alongside masks; it was then taken to the new caretakerôs village be kept in the men's house. In the past, every four to five years, the bones would be taken

out and a new *tra* made before handing over keeper-ship to other close kin, at a similar ceremony. In contemporary versions of this festival, photographs of the deceased are distributed among close relatives, in the place of bone exchange. The grave is later cemented which marks the final feast in a series of mourning ceremonies.

Figure 84

Painted bone container (*tra*)
Linden Museum, Stutgart No: 83678

Figure 85

Sulka man painting *matpil* for Ordination Ceremony, 1982. Photo: author

Painted Spirit Masks

Mask performance is the high point of all major Sulka ceremonies - nose-piercing, circumcision, teeth blackening, marriage and mortuary feasts. Masks are also associated with exchange; ôthe construction and dancing of the masks is an essential compliment to the public exchange of foodô (Isaac and Craig in Craig 1999:141). Planning starts in negotiations between men of the families or clans responsible, as to who will make which masks. Sulka people without close kin pay experienced mask-makers do it for them; such payments are usually low, for example one pig per mask.

Masks, as their Pidgin name *tumbuan* (meaning anscestor) implies, are the embodiment of spirits, whose power comes to them during their construction and painting, each stage of which is ritualised to accommodate it and make it non-lethal. There are four main categories of Sulka masks in use today, each bearing a group name (e.g. *keipa, lilwong, susu, hemlaut*), each having a different sequential time in which to perform. Only initiated men are allowed knowledge of masks, their manufacture and the accompanying rituals. When activating masks, these men become the medium between the uninitiated people and the spirit world.

Women are denied access to them, yet Sulka oral history is full of references linking masks to women (Hill 1999:482). Sulka masks are considered as the descendants of the female ancestor spirit, Parol**,** and in an origin myth it is the women who first made them

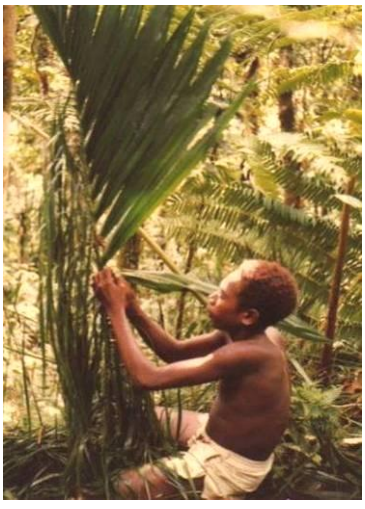
(Hill 1999:482). Exceptions to the female ban are the first-born daughters of important men, known as *khenger* who can enter the mask house, but not partake in making making or performing. All other women and children believe them to be actual spirits; men too are aware they possess spiritual forces and practice protective rituals to minimise the effect.

Fear of masksô potency is instilled into children, from an early age, especially girls, who are lead to believe they cause foetal death, infertility and fatal illnesses. Conversely, once blessed with magic words, the *hemlaut*, the ôkingô of masks can promote growth in children. While masks are being made, women and children in the past were warned by bullroarers to keep away and would have been killed should they have stumbled across any part of the making process (Parkinson 1907).

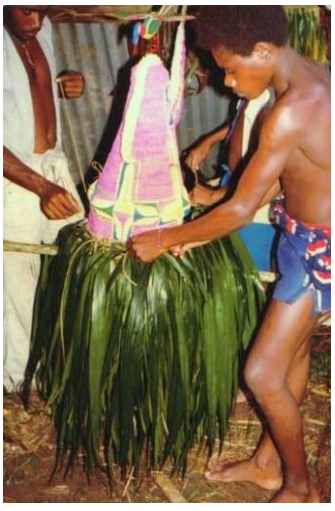
The masks are constructed by initiated men, hidden inside specially built huts, at a secret location away from dwellings and gardens. Before and during manufacture the maskers and avoid certain foods and abstain from sex; contact with women and strong foods would make them weak, rendering them vulnerable to the masks' fatal powers. They partake of ritual cleansings with aromatic plants - *glop*, an orchid, *seren* (*Alpinia* sp) and ginger. Novices, new to masking, are first thrashed with ropes and stinging nettles before wearing them, to strengthen them against the spiritsô powers (as in Figure 86b).

Figure 86 **Construction and Painting of Masks**

Man painting mask in mask house. Photo credit: author



Youth preparing leaves for mask skirt. Photo: author



Men attaching leaf skirt to body of mask. Photo: author

Mask manufacture is extremely labour intensive, taking up to nine months to produce a set of 8 ï 10. It begins with gathering and preparing sacred plants, certain species growing only in the distant primary forest. From these the men create the structural and

decorative elements which become dangerous once they are part of a mask and have to be blessed. Paradoxically, many women are already familiar with many of the plants used in mask manufacture and may even use them themselves to construct their own artifacts, for example *spang*, a vine, the sap of which is used by men as a yellow dye, while its fibres are used by women to make *bilum* threads and string for tying. In their raw state or as components of less sacred items, these plant materials have no potency and are considered harmless, only when transformed into the masks do they become harmful.

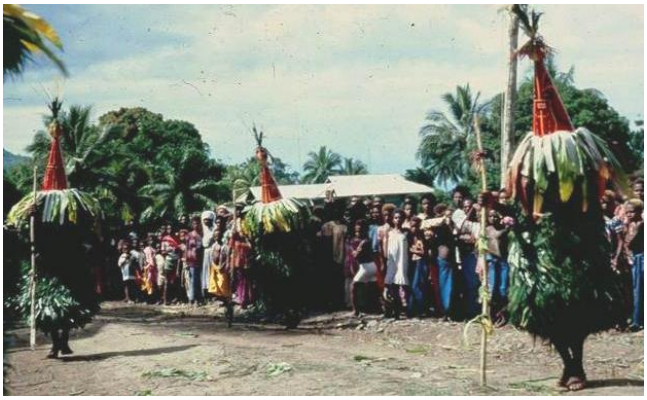
Painting the masks is the most important stage, as the design camouflages the raw materials, transforming them into their final refulgence. The most elaborate Sulka paintwork is reserved for their decoration of their spirit masks which are the focal point of most ceremonies. In the past, very exacting recipes were followed in the preparation of each colour and every ingredient was sacred as well as secret. Still today special songs are sung during the painting to help the paint cover up and adhere to the substrate.

we kuvo (white)	*i lulai e (*go round)	
we pen (paint)	*i lulai e* (go round)	
we yagui (paint brush)	*i lulai e* (go round)	(Hill 1986)

Red always occupies the principal space forming the background 'skin' colour of the mask', while other colours make up the pattern; ó*redpela em i mak bilong tumbuam*ôï ó red is the sign of the ancestorô (Hill 1986). Once fully decorated, the cone section becomes idiomatic with the vagina. On the day of the dancing, as it is pulled down over the wearerôs upper torso, with leaves covering his thighs; his exposed shins and feet are painted white to effectuate total concealment. Men say it is like going inside a woman; the antidotes used against it are the same as those for sex protection, involving passing a looped *Areca* (betel) branch from head to toe while spitting a mouthful of the chewed fruit. This magically prepares the body against the powers of the mask.

Keipa masks (Figure 86) are the first to be made and used, appearing in twos or threes. They are constructed simply from a bark sheet shaped into a cone, with facial features painted on; holes in the sides allow the wearer to extend his arms and wield whips. *Keipa* masks, responsible for rounding up foods, threaten women with a beating if not prepared quickly enough. They also whipped initiands at circumcision and teeth-blackening, to prepare them for the on-coming pain.

Figure 87 ***Keipa* masks performing**



a. Three *keipa* masks bearing whips, as danced at the 1982 Ordination, Photo credit: B. Craig

b. *keipa* masks whipping recipients of food exchanges. Source: Isaac and Craig 1999:141

The second group of masks, *lilwong*, appear during the early stages of a ceremony to enlist a spiritôs help with growing taro crops. They have a double cone shape, the thatch-like top is called *tokati*, meaning ópiece of taroô. Designs in red, green, white and sometimes yellow, on the lower cone, give the *lilwong* their individual facial characteristics.

Figure 88 ***Lilwong* masks**

a. Group of newly made *lilwong* masks in masks house, Kilalum Village, 1982. Photo: author

b. *Lilwong* masks being danced at Guma, for the ordination of a Catholic priest. 1982. Photo: author

The third masks group, *susu*, portray mythical humans or important ancestors, their characteristics represented by the shape and the painted designs. When the whole mask takes on human form they are called *nunu* meaning óa personôs soulô (Figures 88, 90). Songs accompanying *susu* tell stories of named mythical anscestors, such as Litbluo, plus many un-named characters; sung in repeating verse they contain thought-provoking imagery: óthey were as beautiful as two cockatoosô (Hill 1982:99), refering to two brothers appearing from behind a waterfall.

Figure 89 **Examples of *susu* masks**

a. Mask representing woman with snake (*kot*) coming out of mouth. Private collection, Brisbane. Photo: author

b. *Susu* mask representing anscestor in story Litbluo. Nurnburg Museum fur Volkerkunde. No: 7055.233 Photo: author

Mask representing ancestor called Litbluo, who has his flesh torn off by a *mokpelpel* spirit. Australian Museum No: E19200. Photo: author

The largest mask, *hemlaut,* meaning ‘old man’ represents the founding ancestor, *Nut***.** The painting of *hemlaut* masks likewise involves spoken charms (or blessings) to make the paint cover up the raw materials and appear beautiful, so they will give pleasure to the founding ancestor *Nut*, who assists the community in many ways (for many contemporary Sulka people, *Nut* is another incarnation of the Christian God). The *hemlaut* is regarded as the most important mask always appearing singly, at the culmination of the ceremony, ending with its disappearance and symbolic destruction, as it walks out to sea towards the reef.

Figure 90 ***Hemlaut Masks***

a. *Hemlaut* mask being painted at Guma village, 1993. (Source: Isaac and Craig 1999:141)

b. *Hemlaut* mask, Guma village 1982 Photo credit: B. Craig

A song accompanying the *hemalut* mask performed at the 1982 Ordination, referred to a woman giving birth to a snake which ówrapped around her like the underneath of a *hemlaut* maskô (Hill 1982:101). The plaintive singing may serve to remind the *kot* (snake spirit) that he had a human mother and so to do them no harm.

In the past, all masks were systematically destroyed by drowning or burning, to symbolise manôs power over the spirits and to re-enact the myth of *Nut* who disappears and gets turned into stone (Hill 1999). Practically speaking, it hides the material evidence from the uninitiated, thereby maintaining the secrecy.

Figure 91

***Nunu* type of *susu* mask in shape of a woman (possibly image of anscestor *Parole*). Hamburg Museum fur Volkerkunde**

Figure 92 ***Hemlaut***

a. Back of Hemlaut mask walking towards the sea. Photo credit: author

b. *Hemlaut*-shaped exposed reef near Sampun, where *Nut* is believed to have turned to stone. Photo: author

Painted Dance Ornaments

The Sulka use elaborately painted dance ornaments to accompany the masks; of particular interest and still made today, are the *rei*. They are long panels of painted flexible timber surrounded by strips of pith, measuring up to four metres in total length and tapering to a fine point. They function as a ceremonial spear. The lower end is fashioned into a handle, enabling the dancer to brandish and shake it as he moves. Designs, in white and green against a red background, follow the length of the central panel (Figure 93). They were interpreted in very different ways: one, that they were knives and hooks for gathering breadfruit (Hill 1986); another that they were sea-gulls standing on the shore (Corbin 1990:79) and a third, that they represented pigs intestines (Corbin 1990:79). Whatever their meaning they are intended to be eye-catching and threatening, like designs on shields.

Figure 93 ***Rei* dance ornaments**

a. *Rei* dance wands at Guma, 1982. Photo credit: B. Craig

b. Two examples of *rei* ornaments purchased by the National Museum of PNG. Photo credit: B. Craig

At the Ordination ceremony in 1982, men carrying *rei* wands lined up in two rows to form intimidating walls of colourful ‘spears’ on either side of a corridor. They were preceded by a large group of women dancers who ran into the dance-ground yelling and shaking similar but smaller dance ornaments, chasing an imaginary ghost towards the men who used the *rei* to drive it the into a line of other dancers, until it was caught and lead away. The performance symbolised the separation of the deceased man’s spirit from the world of the living (Corbin 1990:79).

Figure 94 ***Kot* dance ornaments**

Men with Kot dance ornaments, Guma, 1982. Photo: author

***Kot* dance ornament Bremen 13666, collector: Captain Nauer, 1913.**

Another style of dance wand is the *kot* named after the much feared snake-like earth spirit, which is responsible for spontaneous attacks on humans, for torrential rain, thunder, and lightning (Bateson in Corbin 1928), as well as earth-quakes and tsunamis (a real threat in this part of New Britain). *Kot* ornaments comprise a wooden pole three to four metres in length, to which is attached a spherical component made of pith surmounted by bunches of coloured feathers.

Only men manufacture and operate these items and they are carried against the back of the wearer, attached using ropes or a belt. The dance movements are an important feature; the brightly painted sphere, representing the head of the snake, is just visible above the wearer's head and when he moves the pole sways to and fro, in a mocking gesture. The creation of several objects in the snake spiritôs image and danced on mass, is an attempt to intimidate and frighten it away. On both *rei* and *kot* styles of dance ornament the principle colour is red, which is seen as attractive to spirits.

Paints used in Rituals for the Promotion of Health and Well Being

Unlike the Mendi, the Sulka do not carry out many rituals that chase spirits away from sick people. Such practises may have been numerous once but during the Sulkaôs long exposure to Christianity knowledge of them has mostly died out. Pigments and paint ingredients are employed in magic and as curatives; the majority of them are from plants and so fit into the category of herbal treatments.

Healing Rituals and Tonics

My research gleaned only one healing ritual associated with exorcising spirits. This kind of magic could only be carried out by people familiar with the recipes and the spells, such as a magician or sorcerer. It was only be used when a person displayed signs of illness but had no obvious symptoms; such a malady was thought to be caused by spirits having entered the body, or to be the result of destructive sorcery. The potion did not employ red ochre, but a plant used to make an orangey-red dye, the mango tree. To make it, mango bark was beaten till it turned to an orange pulp, then mixed with the leaves of *grau* (*Ficus* sp.) and thrown into the sea, while the spell was whispered in the direction of the sea encouraging the spirit to leave the person. The words of the spell were not remembered.

Local red clay, not used as a red paint, is used as a cure abdominal pains, diarrhoea, vomiting and other intestinal disorders; it is not applied externally but actually ingested and can be mixed with seawater to improve its flavour. This edible clay is also regarded as a valuable health tonic and Sulka people frequently chew on lumps of it while working in their gardens to give them energy and to relieve hunger. Betelnut with lime (used as a red paint) is applied to cuts, sores, ulcerated skin, bruises and paining joints. The healing power is perceived as emanating from both the red colour and the hotness of the lime.

Painted Stones for Garden Magic

Like the Mendi, the Sulka use painted stones in certain rituals but there is little documentation as to their use. If a piece of bush-land being cleared for a garden has previously been bewitched, the bad spirits can be driven away by óstriking a painted stone and ginger with a dracaeneô (Parkinson, 1907) but there is no description of the colour of the paint in this example.

Long stones painted black are used to induce rainfall: in order to bring rain by magic means, stones are blackened with a paint made from charred *vankie* fruit *(probably wankie - Aleurites moluccana*- which yields oils) and laid out in the sun. Shrubs are then drenched in water and put on top of the painted stones, while a song is chanted (Parkinson, 1907). Here there is a clear association of blackness of the paint with the darkness of rain clouds; and the obvious link of wet leaves with rain and the copious sap.

Paint in Womenôs medicine

The edible red clay used as a general health tonic, also finds its place in the treatment of gynaecological problems. Sulka women consume it in great quantities to control the abdominal pain and nausea associated with pregnancy and dysmenorrhoea. Taken during pregnancy it is thought to have a positive effect on the unborn infant by helping it to grow strong and healthy.

It is also used by Sulka girls experiencing their first menstrual period, who, in former times, were not allowed to eat normal foods for one week and were kept in isolation in a sectioned-off portion of a traditional women's house. During the second week they resumed a diet of taro mixed with red earth held on a cassowary-bone skewer; the girls were not allowed to touch the food with their hands until the bleeding ceased (this minimised contamination from their own blood flow).

Special incantations were spoken before each meal to invigorate the effects of the red clay, believed to strengthen the girl, combat self-pollution, reduce the bleeding and delay the second menstrual period. Menstrual bleeding was thought to weaken the body and make one prone to sickness. At the time of my research women were still consuming red clay during their periods and in pregnancy. Some believed it also acted as a contraceptive.

Paint in Pig Magic

As among the Mendi, Sulka women are the main carers of pigs, preparing their food and treating them when they are sick and carrying out pig magic to help them grow. A white paint made from a ground up white rock (*plang*), is mixed with a pig's meal of sweet potato to stimulate growth and fattening.

Another paint of masticated betelnut and lime is wiped over the pigôs body while tugging and stretching the skin. The words "*gro'ap* (a fern) and "*vlong*" (sea) are spoken to encourage desirous effects - that the pig will grow as quickly as the fern and its belly as large as the sea. Other externally applied paints include pure lime powder, white clay or ash from the fire; these are rubbed on to the infected skins of pigs to cure ailments and retard parasite infection (such as lice).

Figure 95 **Pig magic**

Sulka woman grooming pig prior to carrying out pig-magic. Photo credit: author

White fire ash building up in the hearth - sometimes used as paint in pig magic. Photo credit: author

Paints in Sorcery

When a man is angry with a woman, perhaps for adultery, to get even he uses sorcery involving white paint. He takes white paint powder from either ground chalk or lime, puts it in his palm and blows it towards the full moon, whispering a charm ó*ivu, ivu ivu'* (Parkinson 1999:76). This, it is believed, will cause the woman to have many miscarriages or become pregnant so often she dies of exhaustion.

Another spell involves mixing white lime with fruit sap and dropping it over the footpath. The intention is for the woman to tread on the white mixture, so she would die from repeated child-bearing.White lime, mixed with ginger, and the ground dust of ancestral bones formed a potion used by Sulka warriors, to give them strength and courage before an impending battle.

Discussion

Among the Mendi and Sulka, paints are used not only to enhance or camouflage the natural colours of substrates, but to transform them into a supernatural state, whereby they can become part of, or initiate direct contact with, the spirit world. This chapter has shown that paint of different colours can have special powers.

There is consistency in the use of red ochre in both Sulka and Mendi rituals to entice spirits; it may be used singly or arranged in bold patterns to intensify the colour, or encode a message. Such is the power of paints that they can firstly attract, and then subsequently drive away the spirits which cause sickness and misfortune and, in so doing, can counteract the damage or evil they have bestowed upon human victims.

Mendi treatment of spirits is more blatant than the Sulkaôs, luring them with copious quantities of red paint with smells of hot pigôs blood. Texture, as well as colour and smell, is a quality made use of, such as the softness fungi to soften ghostsô mouths, or strength and sharpness of timber to stab spiritsô eyes.

Painted Sulka masked dances are metaphoric; they convey imagery of movement, light as well as colour. One song accompanying the *susu* masks compares a novice washing in a whirl pool to the movement and brightness of a dancing mask: óhe came out shining like a mask in the setting sunô (as translated by Chris Isaac in Hill 1982:100). The large expanse of red is integral to the picture: in another song masks are compared to beautiful red flowers. It is as if they are glorifying the mask as an image of a god-like being, rather than the harmful spirit that other actions suggest. In combining the elements of glory and

fear, they are thus able to communicate with the Christian God and their own anscestrals spirits. The complete antithesis of this poetic imagery is seen in sorcery, showing that paints can mean completely different things in different contexts; they are polysemous.

CHAPTER 9

PAINT USE: MEANINGS AND CONTEXTS EXPLAINED

Introduction

This last chapter offers an appraisal of the data and draws a final comparison between the Mendi and Sulka in aspects of paint use. In the previous chapters the specific function of paint as an aesthetic and magical substance has been investigated, revealing its key role in body and artifact decoration, and as a healing facilitator. In this chapter, paint is examined in its wider social context, summarising the findings of this research.

The Economic and Social Value of Paints

Paint, particularly red ochre, has been involved in trade and exchange in PNG since pre-historic times (Hughes, 1977). After first contact, Europeans encouraged this trade adding their own commodities. Brightly coloured pigments were frequently used as payments for food and services by early patrols; it was common experience to find that only one colour (red) was acceptable (Hughes, 1977:107). Despite the increased quantity of trade-store paints after European contact, trade in traditional pigments still continued because they were seen to have more potency in ritual use. Economic value is placed on paint because its continued use in ornamentation, medicine and magic creates a need; it is acquired from outside when internal supplies run short.

Paint has high social value far beyond that of aesthetics; this is exemplified by the attendant ceremony with which painting activities are carried out. In decorating wealth items (pigs and shells) and people, paint plays a part in all the intra-group exchange transactions that are central to PNG ceremonies that help bind communities together.

In New Britain, there is evidence to suggest that trading of dye-plants took place as well. Panoff investigated the exchange of plants in the Sulka and Mengen area concluding that ‘out of 450 taro varieties recorded as cultivated by the Sulka, 50 were of Maenga [Mengen] or Tmuip origin’ (M. Panoff, 1969:11). The Kol people from inland New Britain exchanged mountain taro with the Mengen in return for species of *Cordyline* and *Coleus* (M. Panoff, 1969:11); the latter being used by the Sulka and Mengen as a dye plant.

The Emotional Importance of Red Ochre and Other Red Colourants

ôRed ochre is a magical substance, said to attract shells and valuablesô, (Strathern and Strathern, 1971:20). Red ochre has universality encompassed by *Homo sapiens* for several millennia the world over (Roberts 2009); it is still one of the main ingredients for commercial paints in developed countries. In Australasia (Lake Mungo site) it has been used for over 32,000 years in the decoration of corpses in burial rituals (Flood 1983:46). Key to understanding what red ochre means to the Mendi is the association it has with ancestors and wealth. Their story-of-origin for red ochre aptly describes this relationship, where ancestral flesh transforms into ochre, then into wealth:

> There was a special place, Paravoro, where we got our red ochre. It was a recess in an escarpment, deep in the big forest. A fence around it marked the site. The Omol clan owned this land and one of their ancestors, a big-man named Omol Poroho, once lived there with his very old father. Before his father died he stated that he did not want his body to be displayed in a tree, he wished to be buried in the ground at Paravoro. After the father's death, Omol Poroho honoured his request, burying him there, fencing off the area with huge pieces of wood to keep pigs and people away from the grave. As the deceased man's body rotted away, rich red ochre emerged in the place of his flesh; a precious gift from the old man to his son and clansmen, who became rich selling off the ochre. Paravoro is still a very sacred place and you can see the remains of the fence post as stumps of wood, even today.
>
> (As told by Paki Ya, in Hill 1986)

The Mendi believe that if they look after their dead, they will accumulate wealth. This is further emphasised by the practise of painting pearlshell motifs on coffins, as noted among the Wola (Sillitoe and Sillitoe, 2009). In both the Sulka and Mendi cultures, red paint symbolises blood and, as such, represents both life and death. In a Sulka myth which clearly illustrates the connection between red and spirits, a pool turned red when a spirit arose from it; ôthe water broke and flooded up and turned red. Then the people saw the *kot* rise from the waterô (Bateson, cited in Corbin, 1980).

Blood is a fundamental part of the living but is seen in quantity during times of sickness and death (for example from men wounded in battles, or from sacrificial pigs) hence the association with spirits, which arise from the dead and then return to consume the living. ôRed is the colour of *wuk:hit* (in Sulka territory) the place of ghosts of men killed by violenceô (Bateson1928, in Corbin, 1980).

Red connects the tangible human world with the spirit world and is the link in the descent system between living people and their deceased ancestors. Red is the main colour used to attract or symbolise spirits; on Sulka masks is represents the ancestor, on their

sacred dance ornaments it both attracts and repels them. In Mendi cults and rituals for dealing with ancestral and earth spirits, red ochre with pigôs blood is the only coloured paint considered to work. For the Mendi, who use red hot embers to make pigments redder, there is another colour association made between the red heat and the increasing redness of the ochre; ówhile be-spelling ité .he blows gently on the hot embers to fire the clay, believing this will induce a good red hueô(Sillitoe 1988:443). Fire is also associated with certain spirits who are thought to reside under the hearth (Sillitoe and Sillitoe 2009). The spiritual value of red was further endorced by the Anglican and Catholic Church authorities who use it in the decoration of religious buildings and for the gowns of high ranking clergy.

Associated with menstrual blood and placenta, red paints have become symbolic with female qualities and new life; men use red paints to attract and be-spell women. Red ochre also comes from the earth which is seen to nurture and give rise to new life (seedlings or propagens emerge out of it) linking it to fertility and proliferation. Sulka women use red ochre to combat the polluting qualities of menstrual blood and consume vast quantities while pregnant; Mendi women massage it onto their pregnant bellies. Among the Telefol, female corpses have their mouths crammed with red ochre (equated with menstrual blood), presumably to perpetuate ensuing generations. Red ochre, with pig fat and cucumber, is óa source of (boys) beauty and rapid growthô(McKenzie 1991:176).

Red ochre can repair ódamagedô life and is used in numerous Mendi and Sulka healing rituals. Other red paints, namely betelnut, are also used in a number of Sulka healing recipes and in the promotion of pigs' growth. For the Sulka there is direct association with the colour red and crop growth: several red leaved plants, (known as *gidiel* meaning blood) are scattered among newly planted taro propagens while magic words are uttered, to make the taro grow rapidly, plentifully and large; (*gidiel* is a another species of *Coleus* used as dye plant).

These connections transfer to renewal, development, and the accumulation of wealth (new pigs) and inherited wealth which follows through the line of descent. Pearl shells are painted red by the Mendi to increase their value and Sulka shell money, used for bride wealth and mortuary payments, is more highly prized if it has a natural reddish tinge. As part of Sulka bridewealth, several metres of red cloth are given.

Most importantly, red was the only coloured ochre traded by both the Sulka and Mendi and this must by implication mean it is the most valued.

That red ochre has both economic and spiritual worth is illustrated in the Sulka oral tradition; told by Paul Anis in Pidgin, it translates as follows:

> We used to get our red ochre from the headwaters of a river near Pomio in Mengen territory. Many people tried to find it but didnôt come back alive. It took several days of walking along a very dangerous track. A huge, ugly snake (equated with *kot*) lay across the road which they had to kill and eat before it got them. If they did not eat it they would face more terrible dangers further on. They cut it up and reluctantly ate it - it tasted terrible and they used up their vital taro supplies to disguise its foul-tasting flesh.
>
> The red ochre was located at the bottom of a ravine a thousand feet deep, the sides of which had razor-sharp projections, snapping open and shut like the perilous jaws of an enormous shark. The men used special magic to allow them through and if they had not eaten the snake, the ravine would have crushed them to death. They climbed down the steep sides and quickly gathered the ochre. Their exit was an arduous ascent; they had to act reverently to make the jaws stay open. Homeward bound, another monstrous snake presented itself which they had to kill and eat. This time they had no more taro to help swallow it down. They felt very weak and terribly sick. It took four more days of hard walking, without food, to get back to safety.
>
> (Hill, 1986)

This myth emphasises the scarcity of red ochre in the region and the difficulty of access. Snake-spirits guard the route, while shark-spirits protect the cave, further illustrating the links between the spiritual world and red ochre. The desirability of red paint is thus gauged by the life-threatening effort involved in its procurement, perpetuating its high value.

Red is visually conspicuous and appealing; it is the predominant colour used on Sulka and Mendi artefacts. For self-decoration red forms the main face paint of Mendi women, as well as Mendi men at the climax of certain ceremonies; many red items are worn - red plumes and *tanget* leaves are worn by Mendi men and women. For Sulka women, red-coloured accessories, (leaves and seeds), and red cloth belts are used as festival ornamentation. In older style self-decoration, red paint was added to Mendi men's black decorations at the climax of certain ceremonies, along with red accessories and was the main colour for women's face decoration. For Sulka men red is seen as attractive, their traditional body paint was predominantly red and it was the principal background colour on their loin cloths (*katam*).

The Symbolic and Ceremonial Associations of the Other Colours

Black Paints

As with red, there are many connotations for the use of black paints, which were all charcoal or carbon based, except for manganese. Emanating from hot fires they are seen to

have óheatô, giving power to the wearer (Hill 1986). Black paint is associated with health, vigour and fertility; when shiny with oil, it improves the appearance of skins, imparting a healthy sheen to the wearer, making him look larger and stronger (OôHanlon 1983). There is marked association of the colour black with masculinity and male solidarity and in some contexts male aggression. Men's houses are typically dark places with smoke-blackened roofs and walls (Barth, 1975). Sulka men with blackened teeth became part of a closed society from which people with un-blackened teeth were excluded.

For many of the ceremonies lead by Mendi men such as warfare, compensation and certain cults, black paints predominate in self-decoration. Since the Mendi usually use charcoal with an oily binder, it is the glossy effect, as well as the darkness, which is sought after; dull, ashen skins are considered unattractive, implying sickness (OôHanlon 1983, Sillitoe 1979). Mendi men, blackened for warfare or ceremony, lose their identity and are seen as a group, not as individuals. What the ódark faces of the warriors seem to be stressing is not so much their individual prestige ... but their concerted anonymous action on behalf of their clanô (Strathern and Strathern, 1971:102).

Even when Mendi women wear black for marriage and during menstruation, it functions in menôs favour, protecting them by óde-pollutingô the women; perhaps because it contrasts with bright colours, seen as feminine. Black paint and oil have associations with male and female fertility in the Mendi *Yeki sen* fertility ritual, which invokes a female spirit to increase the manôs virility and combat the womanôs infertility (Mawe 1985).

Sulka men are only recognised as attaining man-hood once they have undergone successful blackening of their teeth, which involves great heat and references to several black objects. They also wore black cassowary feathers in their hair and many dark objects made of tortoiseshell; black also forms the principal foreground colour on their loincloths. Many of the personal possessions of Sulka and Mendi men were engraved with black designs, for example smoking pipes and lime gourds, blackened through burning or charcoal paint.

Black paint was the principal body paint colour used by Mendi warriors, accompanying decoration worn were also black (e.g. cassowary feathers,) or specially blackened, such as aprons, armbands and hornbill beak ornament. Male weapons used by both the Sulka and Mendi were made from dark coloured or black timbers, smoked before use. Mendi arrows were carved from black palm and the indentations between the barbs were coloured to highlight size and darkness; while Sulka spears were cut from black palm,

but left uncoloured. The heads of Sulka and Mendi axe blades were cut from dark stones, basalt and obsidian, while Mendi shields were first blackened by smoking or painting with charcoal.

White Paint

White paint can be used to communicate in many ways. In body decoration, it is seen as both attractive and terrifying; in some contexts it stands for grease and health, but in the context of mourning it alludes to ótheantithesis, dryness and deathô(Strathern and Strathern, 1971:168). When white is used alone to cover a large expanse of skin, it takes on a negative quality linked to ill health (pale dry skins) and death (the colour of dried bones) as do pale, dull whites for the Sulka. Used in combination, white serves to enhance all the other colours, making them appear brighter or darker. With red and yellow, it is seen as attractive; while next to, and in stark contrast to black, it has an intimidating effect; óthe gleam of white terrifies the enemy in warfareô(Strathern and Strathern, 1971:168).

Shining whites also signify wealth - many of the white shell ornaments worn by the Sulka and Mendi are also used in gift exchange and as heirlooms, and white lime is applied to Sulka bodies during the bridewealth ceremony. Other forms of white jewellery, such as dog or possum teeth necklaces, and large baler shells were also highly prized. This colour association continues into contemporary economic transactions - copra, (the main source of income for the Sulka) is white, while young coffee beans (the principal Mendi cash crop) are also white.

White, like red, is a metaphor for growth and good health; the fat inside a large, healthy pig is white. Mendi and Sulka women feed a white paint to young pigs and cover them in white paint to make them grow large, with layers of white fat and to produce more offspring; white objects are listed in spells to reinforce this magic. White paint was rubbed on the bellies of pregnant Mendi women to promote the growth and facilitate birth. The Sulka use white lime, obtained from coral, as the prime ingredient of a number of healing recipes. The association of white with growth and well-being is more direct: the edible parts of many food substances such as taro, coconut, banana, sugarcane, *pitpit*, fish and pig-fat, are white and induce growth; while white bodily products such as sperm and milk are white and are seen to nurture young infants.

White shells are used by both the Sulka and the Mendi as currency, in the form of

crescent-shaped neck ornaments among the Mendi and arm bands and necklaces among the Sulka. Faces of Sulka people are painted white during bride-wealth exchange. Used in combination with black it has a fearsome effect while, when used with red and yellow, it is festive. Its presence on Sulka war shields highlighted the pattern, enabling them to be seen at distance and to intimidate the approaching enemy.

Yellow

For both groups yellow is seen as a bright and attractive colour, but less important that the other colours; a yellow earth can only become a powerful substance in Mendi ritual practices once it has been converted to red through prolonged heating. In self decoration yellow is never used alone but always in conjunction with other colours. It accompanies red, white and black in Mendi menôs facial designs and with red, white and occasionally blue for Mendi women.

Ryan observed the hierarchical nature of bright colours among the Mendi men for such ceremonies: ótthe dancers are only slightly decorated, perhaps a little charcoal and oil, some yellow (not red) face paintô (Ryan, 1961:232), red paint being added together with other red decorations, when the ceremony reaches its climax. Yellow and pale greens are popular colours for Sulka adornment, especially for faces and body ornaments. On Mendi menôs pig-tale aprons and Sulka menôs loincloth yellow is used in smaller quantities to highlight red.

Yellow was occasionally used in Mendi magic, for example in a cleansing rite for newly married couples to prevent their skins drying, yellow paints is used in association with yellow gourds (Sillitoe and Sillitoe 2009:80). It is sometimes used with red on magic *kepel* stones perhaps to reinforce the redness of the ochre and blood mixture. Many yellow substances are used by the Sulka for medicinal and magical purposes, such as ginger and mango bark.

Green

Green is one of the four dominant colours used in the material culture of the Sulka, complimenting red, white, and black, and replacing yellow, the fourth most commonly used colour throughout PNG. Traditionally, Sulka faces were painted green for ceremonial activities, while trunks and limbs were adorned in red, white and black paints, the face

representing the centre of attractiveness. Green is not used as paint in Mendi but, as a decorative colour in the form of parrot feathers, beetle carapaces and *cordyline* leaves.

On Sulka masks green paint is always adjacent to red; red represents the spiritual entity, while green, the colour of fresh vegetation, serves as a link between the natural and supernatural worlds. People accompanying the masks are decorated in masses of green leaves, (seen as attractive and associated with growth).

Gender Roles in Activities Associated with Painting

Gender Differences in Material Selection and Methods

There is marked gender differentiation among the Sulka and Mendi, in both the selection of source materials and their ultimate use. In both groups the men and women use a different colour code ï women use purplish-blue plant pigments on fibre artifacts and in face paint, the men do not; there is also colour distinction in menôs and womenôs self-decoration.

The largely accepted generality that ófemales produce soft materials while men utilize hard media for their constructionsô (Choulai 1993:211) can in many instances be applied to the use of colourants on artifacts; men using solid or óhardô pigments, taken from the earth, while women make liquid or ósoftô colourants from plants. This metaphorically corresponds with their differing roles as cultivators: men dig the earth and prepare the ground while women tend the plants and harvest them (Choulai 1993).

Mendi women are responsible for the manufacture of many fibre ornaments, even those worn or used by men, such as *konap* aprons and use plant dyes to colour them. Where Mendi menôs fibre objects are not pre-coloured by womenôs dyes, as in the case of hats, short aprons and arm bands, the men add their own solid pigments, by rubbing them onto the surface of the finished fabric. Even the men's aprons worn for warfare were made by women, suggesting that their input into such garments had no detrimental influence on the warrior's ability to fight, or if it did, this was counteracted by the man rubbing black paint (made from charcoal and tree oil) on to the war aprons.

A similar situation is found with the decoration of the *momak* pearlshells heirlooms - women manufacture the bark fibre carrying-strap, after which, men complete its decoration by painting it with ochre, and are seen to enhance its value and only men are involved in the exchange negotiations for which it is used. This resembles other aspects of New Guinea

culture where women do the initial work and men embellish it; óman is the elaborator, (the) person who completes the work a woman has doneô (MacKenzie, 1991:2).

Gender differentiation among the Sulka is more complex; for artifact materials the óhard ï softô theory does not apply, but it does for the colourants. While Sulka men make all the hard objects from wood and stone, and colour them with solid earth pigments, they also use many soft materials such as pith, leaves and barkcloth in the manufacture of masks, dance ornaments and their own pubic aprons. On these soft fabrics they utilize a wide variety plant dyes to colour them but employ lime powder (from baked coral) as a mordant with these plants dyes; they feel comfortable with the powdery texture as recapitulates the earthy paints they use on hard objects, such as shields and *matpil* posts.

Sulka women did not use lime powder in their dye recipes, relying on neat plant saps without mordants, like their Mendi counterparts. Even though Sulka women now chew betelnut and know of the colour reaction when the green betelnut turns red in contact with lime, their colouring techniques did not involve lime. A likely explanation is that when the betelnut culture was first introduced to the Sulka by Austronesian peoples, it may have became part of the male domain only, and was perhaps prohibited to women.

The gender separation of the Sulka was such that men and women used different plants to produce the same colour; Sulka women employing only three dye plants, from entirely different sources than those used by men. Sulka women were familiar with the species men used to make their paint (e.g. *Coleus* spp) actually cultivating them to maturity, but not harvesting them for their own use as paints. Women do not cause these dye plants any detremental effect when they are living, in fact womenôs nurturing encourages them to flourish, suggesting that the ópollutingô effect women are considered to have only comes into force once the plants are transformed into paints for the ceremonial objects.

Paint Secrecy and Gender Taboos

Women are seen as the creators; they give rise to new generations of children. The biological substances associated with them are greatly feared by men, thought to weaken them, nullify the effects of rituals and retard the flow of wealth. Womenôs presence is seen to contaminate Mendi shell wealth and de-value it, while it is being prepared for exchange. For both Mendi and Sulka men the act of painting is often considered sacred, especially when it involves the decoration of ritual artifacts targeted towards spirits, so it was always carried out in secret.

If women (or anyone uninitiated) got near the paint ingredients, or knew about the associated rituals, they would no longer work. This is partly due to fears of contamination by menstrual blood, but also because the mere exposure, the uncovering of the secret, would render the paint ineffective in its communication with spirits and people. This parallels the way in which magicians or spell-holders guard their potions and incantations from others. Thus, for ceremonial use, paint ingredients can be viewed as potions, and many of them are indeed used in magic; the Mendi word for paint is in fact the same as that for magic potion, *find,* (Mawe 1991:46).

For both groups, the decoration of war-shields and weapons was carried out in secrecy, believing that women's presence would render shields less effective at deflecting enemy arrows, and would weaken arrows or spears, making them unable to penetrate enemy flesh. After use, great care was taken to guard shields from women, so they were kept hidden in the menôs house until required. Sulka men believed that menstrual blood, newborn babies and even sexually active couples would defile the paint (Parkinson 1999:78). When a woman gave birth, (even if she was some distance from the menôs house) men carried out protective magic by spitting bespelled ginger over the shields and weapons inside the house, and over the doorway and roof (Parkinson 1999:78).

Fear of womenôs potency manifested itself in sanctions, such as sexual abstention, undertaking precautionary magic and the prohibition of women during painting, to limit detrimental consequences for the whole community. Mendi men carried out their cult rituals well away from dwellings and women were warned by flute blowing to keep away. Sulka men compare entering a mask to entering a womanôs vagina and exactly the same precautions and ritual cleansings are taken before and after both activities. Masks have both female and spiritual connotations. Women were also seen as the creators of the masks; it was the women who first instigated the masking tradition and the masks are also believed to be the descendants of a female ancestor, Parole. Men excuse themselves the prohibition of masking to women using the myth as an explanation, that they fear women could repossess the masking tradition and regain control.

> In the beginning, it was only the women who knew how to make the masks, small *susu* ones. All the men stayed in the villages and prepared food. One man went into the forest and he saw women making masks, he watched until he knew how to make them. Then he went and killed them and took the knowledge back to the men. He said to the women, "You cook the food now, and we men will bring about the masksò.
>
> (Hill 1986).

Sulka men wearing masks also use love-magic to attract women, the antithesis of the protective magic they used previously. The aromatic leaves of *Alpinia* spp are placed on the chest and back of a novice when he goes into the mask in the hope that a woman of his choice will follow it. They also incorporate aromatic plants, normally associated with women's initiation and love-magic, such as *roglel* (*Alyxia* sp.); and *porakei* (*Euodia anisdora*) the maskôs rear tassel; the red colours and fragrant smells combined and are intended to attract women. At one level this appears as a conflicting duality of logic - on the one hand women are expected to keep away from the masks, yet if strong enough love-magic is used, women will get close. Some Sulka masks, like Mendi kepel stones, are in embodiments of the female form, a way of incorporating female attributes or ôto appropriate female powersô (Thomas 1995:52) in order to encourage favour with the female anscestor spirits.

The gender antagonism is not totally one-sided: certain aspects of Mendi and Sulka women's culture too are kept secret from men, especially those concerning gynaecological rituals, women's initiation and pig magic. Other features of women's magic, such as love potions, sex protection spells and contraceptive potions are also kept secret from men. The secrecy surrounding these issues is something the women enjoy sharing among themselves; it gives to them solidarity and power.

For contemporary Mendi and Sulka, many of the restrictions and taboos placed on them are now less severe, due to increased influences from outside, including Christianity. Sulka women are now involved in the manufacture of their own dance-ornaments. Among the Mendi secrecy between the genders in preparation for contemporary festivals is now rare, especially between marital partners and family members, women often carrying out the face and body painting of their spouses. For the Sulka, masks are still the main issue enforcing segregation.

Factors Influencing Differences in Mendi and Sulka Painting techniques

Social Differences

Social differences relating to paint usage relate to time expenditure - the time period each group devotes to artifact manufacture and self-decoration. This is partly explained by environemental factors. The Sulka inhabit a more fertile terrain than the Mendi; the year-

round high temperatures and regular rainfall speeds up maturation of taro, the staple crop, so less time is spent cultivating gardens leaving more time (for the men at least) to devote to ceremonial activities. The Sulka spend less time pig rearing which may relate to their maritime location and access to other forms of protein (fish).

Across Sulka territory, soils are of similar fertility, all clans therefore having access to similar crops leading to less competition between them. The population pressures of the Mendi Valley, and huge clan rivalry, has not been experienced in Wide Bay. The more cohesive social structure and relatively fertile terrain has resulted in exchange payments for the Sulka being not too onerous, with garden foods, such as taro and bananas being accepted for payment, as well as pigs. Examples of this are seen in Sulka bridewealth exchanges, óthere must be two lots of food, goods (shell wealth and cloth) and masks from the bridegroomôs people and one lot from the brideôs people familyô (Isaac and Craig in Craig 1999:141). The fixed ratio of 2:1 helps to keep exchange payments low, and the same fair-mindedness can be seen in other exchange mechanisms. As a consequence less time is spent by the Sulka men in exchange negotiations and the accumulation of wealth, than among the Mendi, giving them more time to carry out creative and artistic pursuits.

Large bridewealth payments are expected from the Mendi grooms and their kin, for example ófifty pearlshells, nine pigs and 382 kina,ô (Lederman 1986:76) and whilst there is reciprocation from the brideôs side, it takes the groom and his kin several months to accumulate the wealth. There are many other Mendi ceremonies such as *mok ink* which require huge payments from all exchange partners. From the time-expenditure surveys carried out by Sillitoe (2010: 341-351) among the Wola, calculations work out that 10% of menôs time was spent on exchange, 10% in gardening activities with only 1% in artifact manufacture (and not all of these were painted); while the women spent 30% of their time gardening, 2% in exchange and 3% in artifact manufacture; which would be similar for Mendi speakers in the Mendi valley.

Whilst no actual figures are available for the Sulka, evidence shows that men devote considerable amounts of time to artifact manufacture for ceremonial use (Jeudy-Bellini 1988 Corbin 1990), a set of six masks can take several months to complete (Hill 1986). Where intra-clan competition does manifest itself, it is in the production of painted objects, such as masks and dance ornaments. Because masks are also used as exchange gifts, much time is invested into their manufacture to satisfy recipients.

This does not mean that only wealth, and not aesthetics, contributes to Mendi exchange ceremonies. The wealth items themselves (the painted pearlshells, their mounts and straps) must look exquisite, and the pigs, also painted, must impress their recipients according to their size and general appearance. Exchange mechanisms have in fact created competitive artistry in the form of self-decoration with dazzling arrays of body ornaments and paintwork on bodies.

Environmental Factors Influencing Pigment Selection

Concerning choice of pigment, the Mendi and Sulka also show variance. The selection of raw materials is partly environmentally dependent, but technological awareness is also an influential factor. Where nature offers an abundance of colours, both the Sulka and the Mendi choose the bolder, primary ones, as well as black and white, avoiding the duller, secondary ones (except in mourning).

The availability of coloured ochres in each region, South Coast New Britain versus central Southern- Highlands, has influenced colour preference more than availability of suitable dyes, because as discussed in Chapter 6, the earth pigments are much more stable with good covering power. This is reflected in the different colour schemes of the Sulka and Mendi men: the Mendi choosing yellow, from yellow clay, as their fourth colour, while the Sulka select green, because yellows ochres were not found in the region, but green earths were; where yellow is used, it derives from plant sources. It is likely that the anscestors of the Sulka migrated in from an area where they had access to more ochre colours, including yellow (linguistically they have links with New Ireland and Bougaineville) and so sought botanical equivalents.

The availability of dye yielding plants in each area also accounts for differences; many of the plants used by the Sulka to make paints do not grow in the Mendi valley, e.g. *Morinda citrifolia* and *Mangifera indica,* which are coastal plants. There are some dye plants common to both New Britain and the lower altitudes of the Southern Highlands, such as *Bixa orellana* as used by the Foi people (Sillitoe 1988) and *Curcuma domestica* (as used by the Huli) and, whilst the Mendi might be familiar with their use, have not embraced them because they do not thrive at higher altitudes. The most important factor accounting for varience is the Sulkaôs access to a coral reef species *Acropa* sp (unavailable to the Mendi) from which lime can be manufactured. The use of lime as a mordant has enabled Sulka men to create a huge variety of plant colourants for softwoods and fibrous objects.

Technological factors

There is divergence in technological knowledge, the Mendi are cognisant in converting yellow-orange clays by baking them to get red, and the Sulka are not. This practice is widespread in the Highlands, but unknown in East New Britain, perhaps because red ochres in the Mengen area, from where they acquired them, were already the desired colour (that is containing more haematite). It means however, that the Sulka were not able to make use of their locally available browny-orange clay as a red paint.

Disparity is seen in the methods employed with plant pigments: the Sulka men use basic mordants, the Mendi do not. The way they each prepare *Coleus* shoots is a good illustration. All members of the *Coleus* genus bear anthocyanin pigments in their leaves which give them their red and purple colouration (Czygan 1980*).* This genus has widespread use as a dye in PNG, with diverse application of methods. The Mendi use *Coleus* shoots unprocessed (apart from steaming to soften) putting the purple sap straight on to fibres; the South Fore of Eastern Highlands dip *Coleus* leaves with wood ash, which being alkaline makes the dye more blue; the Gahuku use them with fig sap, which is acidic so it makes red; the Sulka mix them two different types of mordants, alkaline lime to get green and acidic saps to produce red.

Whilst the Sulka and Mendi are unaware of the exact chemistry underpinning their techniques, there is a deliberate consciousness to achieve consistant results. The Wola apparently avoid the fire-ash when steaming *Coleus* shoots (Sillitoe pers comm 2011), which retains the purple hue; contact with fire ash it makes it more blue. The Sulka are very precise with the order and quantities of plant mordants used with *Coleus* to make red.

Because Sulka men embraced lime into their dyeing and painting technology, using it to extract and fix dyes, they created a wider choice of colours and with more light fastness than the Mendi could using their plant dyes without mordants. Using lime with dyes also enabled Sulka men to create elaborately coloured designs on a greater range of substrate types from hardwoods to soft fibres, than had they used just ochre.

The Notion of Material Versus Colour

In my research I sought answers to the problem of whether the material constituents contribute to the power o the paint, or whether colour only was the important factor. The fact that for many decades after the arrival of trade store paints, red pigments were largely

ignored (Hughes 1977) suggests that the material essence of ochre was sought. This is certainly true for the Mendi, where red ochre in representing ancestral blood, cannot be supplanted by a substitute material. My informant Paki Ya was keen to affirm that only ochre will work for certain spells in healing rituals, ó*pen bilong master em I no strongpela, em I no wok*ô - the European paint is not strong enough; it will not work (Hill 1986). Older women strongly maintained that only real ochres from the earth, and not trade paints, could work for medicinal cures and gynaecological therapies. Where colour was sought for mainly aesthetic reasons, such as in Mendi body painting for which intense hue and brightness are crucial qualities to inspire audiences, then trade store paints were adopted for this purpose.

Many Sulka people, especially those living in the Sulka Reservation near Rabaul, had early access to European paints. This is evidenced by the un-faded sections of red on some of the masks collected in the early 1900s, now in German museums; tests on some of these red paints by German conservators have shown that aniline dyes were used. Using was commercial paints was a prudent solution and speeded up the process of making the large masks, since traditional paints could only be made in small volumes. For the Sulka, European paints appear to have the same ritual status as traditional paints and are also be-spelled when applied to the artifacts. The fact that the European óGodô was accepted early on as equally powerful to the traditional anscestor spirits, may partly explain this.

Colour, Texture and the Physical Transience of Paint

For both the Mendi and Sulka, colour permanence is not the only criterion attached to paintôs use. In some contexts aesthetic satisfaction can derive from texture and tone as well as chroma. Already discussed is their admiration of glossy effects on skin, because they appear healthy. Strong colours are not needed at all times; dullness is acceptable in some situations, for example on old aprons during times of work. The Mendi recognise second best, best and finest attire, the decoration sets and paint increasing in complexity and brightness as ceremonies reach their final stages, (Sillitoe 1988, OôHanlon 1983, and Strathern and Strathern 1971)

Mendi womenôs dyeing procedure for menôs aprons is very fugitive, fading from the purple saturated hues, to dull brown. Even after fading, the diferent brown tones retain the attractive striped texture, alternating with lighter raised undyed fibres plumped out with tufts of possum hair so the object continues to have a function as an attractive item of

œverydayô apparel until it wears out. Some groups, for example the Telefol, do not dye *bilums* but achieve colour differentiation using fibres of naturally varying hue, and effect textural changes by altering the tightness of the loop (MacKenzie 1991:70).

The same can be seen with the Sulka, for even using basic mordants many Sulka dyes used on masks and dance ornaments faded within a few days and the soft substrate materials rapidly became draped and ragged. It is perhaps then this transient quality of the colours in ceremonial contexts which gives them most value, especially when their acme coincides with the climax.

Colour and Ceremony: Differing Effects, Common Aims

The main contrast between the Mendi and Sulka is the way they each use paint in ceremonial life: for the Mendi the main emphasis is on skins and dress accessories, while the Sulka reserve their intricate colour combinations for their ceremonial artifacts, that is the masks and dance ornaments. These are in some ways superficial differences for the over-arching purpose of the colourful displays is to communicate optimism and the desire for well-being; in this they have a common aim.

Painting for both groups is part of a performance, colours are rarely seen static. Whether warriors with shields, decorated dancers or masks, the colourful array of painted bodies and ornaments is kinetic and short-lived. Accompanied by quick movements as performers dance in unison row by row, then move off the dance ground, the effect is intended to be fleeting but impressive. Swishing leaves, bobbing feathers, drum beats and chanting highlight this effect, adding noise and movement, which amplifies the visual effect. ôThe bright red paint of Sulka masks caught by the sunôs rays, and the vigorous movements of the dancers flickering like flames, are all qualities which equate with power and healthô (Jeudy-Ballini 1999). The masksô performances conclude with their staged disappearance and eventual obliteration, which symbolises humans conquering spirits.

ôThe performing arts are judged not only for the skills displayedé ..but the overall success of the occasionô (Dark 1999:44); success which can only be judged later when crops have grown, and people have acquired wealth or maintained good health. Among both the Sulka and Mendi, paint helps fullfill their aesthetic requirements and social obligations, and in helping to control spirits, it contributes to their future welfare. ôDances express desires for health, strength, fertility and prosperityô (Strathern and Strathern 1971:134); the paint emphasizes these aims.

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